KINDERGARTEN II

Mathematics

Teacher's Guide

2018/2019

Term 2

FOREWORD

This is a pivotal time in the history of the Ministry of Education and Technical Education (MOETE) in Egypt. We are embarking on the transformation of Egypt's K-12 education system starting in September 2018 with KG1, KG2 and Primary 1 continuing to be rolled out year after year until 2030. We are transforming the way in which students learn to prepare Egypt's youth to succeed in a future world that we cannot entirely imagine.

MOETE is very proud to present this new series of textbooks, Discover, with the accompanying digital learning materials that captures its vision of the transformation journey. This is the result of much consultation, much thought and a lot of work. We have drawn on the best expertise and experience from national and international organizations and education professionals to support us in translating our vision into an innovative national curriculum framework and exciting and inspiring print and digital learning materials.

The MOETE extends its deep appreciation to its own "Center for Curriculum and Instructional Materials Development" (CCIMD) and specifically, the CCIMD Director and her amazing team. MOETE is also very grateful to the minister's senior advisors for curriculum and early childhood education. Our deep appreciation goes to "Discovery Education," "Nahdet Masr," "Longman Egypt," UNICEF, UNESCO, World Bank Education Experts and UK Education Experts who, collectively, supported the development of Egypt's national curriculum framework. I also thank the Egyptian Faculty of Education professors who participated in reviewing the national curriculum framework. Finally, I thank each and every MOETE administrator in all MOETE sectors as well as the MOETE subject counselors who participated in the process.

This transformation of Egypt's education system would not have been possible without the significant support of Egypt's current president, His Excellency President Abdel Fattah el-Sisi. Overhauling the education system is part of the president's vision of 'rebuilding the Egyptian citizen' and it is closely coordinated with the ministries of higher education & scientific research, Culture, and Youth & Sports. Education 2.0 is only a part in a bigger national effort to propel Egypt to the ranks of developing countries and to ensure a great future to all of its citizens.

WORDS FROM THE MINISTER OF EDUCATION & TECHNICAL EDUCATION

It is my great pleasure to celebrate this extraordinary moment in the history of Egypt where we launch a new education system designed to prepare a new Egyptian citizen proud of his Egyptian, Arab and African roots - a new citizen who is innovative, a critical thinker, able to understand and accept differences, competent in knowledge and life skills, able to learn for life and able to compete globally.

Egypt chose to invest in its new generations through building a transformative and modern education system consistent with international quality benchmarks. The new education system is designed to help our children and grandchildren enjoy a better future and to propel Egypt to the ranks of advanced countries in the near future.

The fulfillment of the Egyptian dream of transformation is indeed a joint responsibility among all of us; governmental institutions, parents, civil society, private sector and media. Here, I would like to acknowledge the critical role of our beloved teachers who are the role models for our children and who are the cornerstone of the intended transformation.

I ask everyone of us to join hands towards this noble goal of transforming Egypt through education in order to restore Egyptian excellence, leadership and great civilization.

My warmest regards to our children who will begin this journey and my deepest respect and gratitude to our great teachers.

Dr. Tarek Galal Shawki
Minister of Education & Technical Education

Contents

How to Use This Guide

The Mathematics teaching guide is designed to support teachers in the preparation and implementation of learning activities by providing clear, step-by-step instructions embedded with teacher input, instructional strategies, and classroom management techniques. In these learning activities, students explore, play, use manipulatives, move their bodies, communicate and collaborate with colleagues, ask and seek answers to questions, and practice new skills and concepts.

This instructional approach aims to help students accomplish the following goals:
- Build early numeracy
- Discover connections between and among math concepts
- Develop foundational computational skills
- Acquire and use math vocabulary
- Build awareness of measurement concepts and geometric shapes
- Enhance critical thinking, problem solving, collaboration, and communication
- Increase enjoyment of math

If instructors have not used such a guide before, some practical advice follows:
- Read each chapter carefully. Make notes and highlight important details.
- Take particular note of sections labeled **Term**, **Chapter**, or **Lesson Preparation**.

These sections include steps the teacher will need to complete in order to implement the activities in the term, chapters, and lessons. Advance preparation will ease the instructor's workload and ensure successful learning experiences for students.
- Gather the necessary materials and make any preparations before implementing the lessons.
- Consider additional classroom management techniques necessary for your particular class and learning environment.

Please note that for this term the math journal is a standalone Student Book. The math journal is referenced throughout the teacher's guide. Students will draw, write, and complete math activities in their journals.
- Math journals are a wonderful resource for informally assessing student progress. They can help the instructor determine whether or not students are successfully learning and applying new skills and concepts. They can also provide critical information about the kinds of mistakes students are making. That information can be used to plan future instruction and differentiation.

- Take note of the following:
  - What are the pupils discovering or learning? (Content)
  - What are the students being asked to do? (Activity)
  - What is the teacher discovering about the pupils? (Assessment)
  - How could you adapt the lesson for the different abilities in your class? (Differentiation)

- During and after implementing each lesson, reflect and make notes on what was successful and possible suggestions for improvement.
- Planning with another teacher can often lead to greater implementation success as it provides an opportunity to discuss classroom expectations and management procedures and ensures that lessons are differentiated to better suit the needs of students. It is suggested that teachers meet with other instructors at least weekly to plan and reflect.

Background

In this Teacher Guide, Mathematics instruction is divided into Chapters. Each Chapter includes 10 days of instruction. The teaching of mathematics and the building of numeracy is very linear, with students learning new content in increments, and adding to their conceptual development and understanding slowly over time.

Mathematics lessons are organized into three components:
- Calendar Math (15-20 minutes)
  - During this daily routine, students develop number sense, early place value concepts, counting fluency and problem-solving skills.
- Learn (25-30 minutes)
  - During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction and practice.
- Share (5-10 minutes)
  - During this daily routine, students develop their ability to express mathematical ideas.

Some Instructional Considerations

Each section should be implemented every day. However, in some cases, students may need a few more minutes for one section and another section (or two) will have to be shortened for that day. The instructor should use personal judgment and knowledge of students and their needs.

Story problems and numbers are provided as examples. The instructor can use the story and numbers provided or create stories of their own. If the numbers in a story problem or sample problem are changed, be sure to limit the quantities to those identified in the indicators and outcomes (for example, "within 10"). The instructor is encouraged to incorporate familiar counting songs, poems, rhymes, math stories/literature and math games and activities that are not included in this Teacher Guide.

Learn more about Education 2.0

Instructional Strategies

The instructional strategies described are woven throughout the Teacher Guide. These are not meant to be the only methods used in the classroom, rather are highlighted as best practices for engaging students in active, inquiry-based learning. As teachers and students gain familiarity with the strategies, instructors may wish to modify and personalize to suit the needs of each individual classroom.

For more strategies visit: tinyurl.com/Edu2-0strategies

INSTRUCTIONAL STRATEGY NAME	BRIEF DESCRIPTION
Attention Getting Signal	Teacher uses an explicit signal to get the attention of the class when they are talking in pairs or working in groups. There are many options for signals, and more than one can be used as long as students recognize it. Options include a clap pattern that students repeat, a simple call and response phrase, or a hand in the air (see: Hand Up). This strategy allows teachers to ask for students' attention without shouting or immediately disrupting student conversations.
Brainstorm	Students provide multiple answers for an open-ended question. This can be done as a whole class or in groups or pairs. The purpose of a brainstorm is to list many answers, not to critique whether answers are realistic, feasible, or correct. Once an initial broad list is made, students can go back to answers to prioritize or eliminate some options. This strategy promotes creativity and problem solving.
Calling sticks	Teacher writes names of students on popsicle sticks and places them in a can/jar. To call randomly on students, the teacher pulls a stick from the jar. After calling on the student, the teacher places that stick into another can/jar so that student is not immediately called on again. This strategy helps teachers call on a wide variety of students and encourages all students to be ready with an answer.
Count Off	Teacher breaks students into groups by having students count off to a certain number. It's important to tell students to remember their number. For example, if the teacher wants three groups, the first student counts one, the next student says two, the next says three and the next student starts over at one, etc. When all students have counted, tell all the number ones to meet together, all the number twos and then all the number threes. This strategy enables time-efficient grouping and reinforces conceptual number use.
Fishbowl	Students gather around a teacher or group of students who are modeling something new. The students observe carefully as if they are watching fish in a bowl. This strategy promotes full attention of students even when individual students are not actively participating in the demonstration.
Four corners	Each of the four corners of the room corresponds to a possible opinion about a thought-provoking statement. Teacher may post a picture or a prompt in each corner of the room to represent the opinions/statements. Students walk to the corner that interests them or expresses their opinion to group with other like-minded students. This strategy allows students to express opinions and to prepare justifications with others who agree before presenting to the class.
Gallery Walk	As if in a museum, students walk past displays and respond to questions or prompts about the display. This strategy can be used in multiple ways, including to consider ideas posted on chart paper around the room or to view classmates' final products. This strategy encourages diversity of thought. When used at the end of a project, this strategy allows students to celebrate and take pride in their work while also honoring and responding to others' work.

INSTRUCTIONAL STRATEGY NAME	BRIEF DESCRIPTION
Hands Up	Teacher holds a hand in the air to signal that students should stop what they are doing, stop talking, and look up at the teacher. When students notice the teacher's hand up, they also raise a hand to signal to classmates. This strategy is used as an attention getting signal.
Hands Up, Pair Up	Students stand and walk around the room quietly with one hand raised in the air. The teacher says "Stop--Pair Up". Students clap hands and stand together with a nearby student. Anyone with a hand still up needs as partner. Students can easily find each other and pair up.
I Do, We Do, You Do	I Do: Teacher demonstrates or models an action to take place, such as reading a passage to the students. We Do: Students repeat the action with the teacher, such as re-reading a passage in unison. You Do: Student practices the learned action without the guidance of the teacher. This strategy supports students by modeling an expectation, allowing for low-pressure practice, then providing opportunities for independent practice.
Imagine That	Teacher describes a person, animal, plant, or situation for students to act out. Students imagine that they are the living thing or are in the situation and act out what happens. This can also be done in groups with a student, or rotating students, acting as the leader. This strategy promotes imagination and long-term memory. (See also: Charades to add a guessing element.)
I See Very Clearly	Teacher tells students he/she sees something. Students guess what it is as teacher gives students clues. Students use observation and listening skills to guess correct object. This strategy emphasizes use and identification of object properties and characteristics.
Lean and Whisper	Students lean one shoulder in toward one neighbor to answer a question that has a 1-2-word (or short) answer. This strategy engages all students in answering a question without disrupting the flow of the classroom. This is used for KG1 students as a specific type of the "Shoulder Partner" strategy.
Model	The teacher or student demonstrates exactly how to complete a task. The rest of the class can ask questions before repeating what was demonstrated. This strategy allows the teacher to review any safety concerns or difficult aspects of a task, as well as share advice for task completion. This method should not be used for some inquiry activities, as it could over-influence the direction of student thinking.
Number Sign	Teacher can check for understanding quickly by asking a question and giving students a choice of answers. Students hold up one, two or three fingers in response to the question asked. Teacher quickly scans the fingers raised to get a sense of how many students are tracking the material.
One Stay One Stray	After working with partners, one person stays with the work product to present to other students while the second partner walks around and listens to peers in the class share. Then the two students switch roles. Using the strategy, both partners get to share their project and listen to others share.
Popcorn	Call on one student to answer a question. After the student has answered the question, they say "popcorn" and say the name of another student. It is now the turn of that student to answer the question, then pick a new student, and so on. If a student has responded, they should not be called upon a second time during the same popcorn activity.
Shake It Share It High Five	Students move around the classroom until teacher signals to stop. Students then partner with a nearby student. Partners shake hands, share ideas or work products, then high five before moving around again to find a new partner. This strategy gets students out of their seats and moving, while also allowing them to share with classmates they don't sit near.

INSTRUCTIONAL STRATEGY NAME	BRIEF DESCRIPTION
Shoulder partners*	Students lean and talk quietly with the person sitting next to them. Shoulder partner can be used literally to just talk to the people sitting on either side, or for slightly larger groups of 3-4 -with everyone's shoulders "touching" (this promotes the ability to speak softly - in sort of a huddle). *See "Lean and Whisper" and "Turn and Talk" for further breakdown for KG1.
Think Aloud	The teacher models a process of thinking by speaking aloud what is thought. As an example, "I think I need more color here in my drawing." This strategy models for students the type of thinking they can use in an upcoming activity.
Think Time	Teacher allows a distinct period of silence so that students can process tasks, feelings, and responses. Allow students 15-30 seconds to think to themselves before calling on anyone to provide an answer to the class.
Thumbs Up	Teacher can quickly check for understanding using this strategy. Students hold thumbs up for agreement and thumbs down for disagreement to a question asked by the teacher. Thumbs up can also be used as a way for students to signal to a teacher that they are ready for an instruction.
Turn and Talk	Students turn "knee to knee" and "eye to eye" with a shoulder partner to discuss answers to long-form questions. This strategy allows students to discuss ideas, reflect on learning, and check each other's answers. This is used for KG1 students as a specific type of the "Shoulder Partner" strategy.
Venn Diagram	Teacher draws two or more large overlapping circles as a graphic organizer to show what is the same and different about multiple topics. Teacher notes similarities in the overlapping section of the circles, then summarizes differences in the respective parts of the circles that do not overlap. This strategy allows students to visually see and record similarities and differences.
Wait Time	Similar to the think time strategy, the teacher waits at least 7 seconds after asking a question to the whole class or after calling on a student to respond. This provides time for students to think independently before an answer is given out loud.
Whisper	Teacher can provide whole class verbal processing time by allowing students to respond to a question by whispering the answer into their hands. This strategy prompts every student to attempt an answer, with no social-emotional recourse if their answer is wrong.
Zoo Can	Similar to Calling Sticks, the teacher pulls a name stick from the can and the students must count backwards while acting like an animal. This can be used for relevant content instruction or as a quick break when students need to move and laugh before finishing a task or moving on to a new task.

Mathematics Scope and Sequence for Term 2

MATH	CHAPTERS 1-3	CHAPTERS 4-6
COUNTING AND CARDINALITY		
Identify the number of objects in familiar groupings without counting (e.g., number of dots on a side of dice, numbers on playing cards).	X	
Use ordinal numbers (i.e., first, second, third) to describe objects up to 10 (tenth).		
OPERATIONS AND ALGEBRAIC THINKING		
Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, or verbal explanations, expressions, or equations.	X	
Add and subtract within 20 using strategies such as • using objects or drawings to represent a problem • decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1) • finding the number that makes ten when added to any number 1-9	X	X
Fluently add and subtract within 10.	X	X
NUMBERS AND OPERATIONS IN BASE TEN		
Compose and decompose numbers from 11-19 into ten and some units/ones using objects or drawings. For example, 12 means 10 and 2, 15 means 10 and 5.		X
MEASUREMENT		
Compare orally between length and weight and size using longer than/shorter than, heavier/lighter, bigger/smaller.		X
Collect and classify data using objects and drawings (up to 20).		X
Classify objects into given categories (for example length, weight, size, color) and sort categories by count.		X
Recognize different units of money, including 1 Egyptian pound, 5 pounds, 10 pounds, 20 pounds.	X	
GEOMETRY		
Describe objects in the environment using names of shapes.	X	
Correctly use terms such as above, below, beside, in front of, behind, and next to.	X	
Correctly name 2-dimensional shapes (circle, triangle, square, rectangle).	X	
Compose larger shapes by combining simple shapes.	X	
Identify shapes as either flat or solid (building to understanding of 2-dimensional and 3-dimensional).	X	

Digital Resources Available For Use

Teachers are encouraged to use resources from the Egyptian Knowledge Bank as digital learning objects. Visit **www.ekb.eg** to access thousands of resources from the world's top education publishers.

NO.	CLIP TITLE	DESCRIPTION	CLIP TITLE	QR CODE
1	**Length - Part 1**	Explains how to describe the length or height of various objects using the words short, long, high, and tall.	https://plu.sh/vfyed	
2	**Comparing Sets**	Learn to classify objects into named sets according to what they are, their size, and color.	https://plu.sh/39erf	
3	**Comparing Unequal Sets**	Learn to compare between two unequal sets using the symbols for greater than, less than, and equals.	https://plu.sh/e96c4	

Lesson Preparation Template for Education 2.0

Grade (KG): _____ Class: _____ Date: _____ Absent: _____ Students' total number: _____

Content / Windows	Theme	Chapter / Topic	Lesson / Activities	Learning outcomes	Activities	Teacher's Choices						
						Teacher Guide Pages guide	Teaching strategies	Questions / Modeling	Digital resources	Differentiation / Challenges	Math Journal	Enrichment
Multidisciplinary												
Mathematics												
xx												
English												
XX												

Teacher's Self Reflection	☐	Exceeds expectations	☐	Meets expectations	☐	Sometimes Meets Expectations	☐	Below Expectations	☐

KINDERGARTEN II

Mathematics

Chapter 1

Lessons 61–70

Lessons 61–70

COMPONENT	DESCRIPTION	TIME
Calendar and Movement	During this daily routine, students develop number sense, calendar sense, early place value concepts, counting fluency, and problem-solving skills. Students explore quantity and practice counting through patterns and movement.	15-20 minutes
Learn	During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction, and practice.	25-30 minutes
Share	During this daily routine, students develop their ability to express mathematical ideas by talking about their discoveries, using math vocabulary, asking questions to make sense of learning tasks, clarifying misconceptions, and learning to see things from other students' perspectives.	5-10 minutes

Learning Indicators

Throughout lessons 61–70, students will work toward the following learning indicators:

COUNTING AND CARDINALITY
- Identify the number of objects in familiar groupings without counting (e.g., number of dots on a side of dice, numbers on playing cards).
- Use ordinal numbers (e.g., first, second, third) to describe objects up to tenth.

OPERATIONS AND ALGEBRAIC THINKING:
- Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- Add or subtract within 20 using strategies such as:
  - Using objects or drawings to represent a problem.
  - Decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1).
  - Finding the number that makes 10 when added to any number 1-9.
- Fluently add and subtract within 10.

MEASUREMENT
- Recognize different units of money, including 1 Egyptian pound, 5 pounds, 10 pounds, and 20 pounds.

GEOMETRY:
- Describe objects in the environment using names and shapes.
- Correctly use terms such as above, below, beside, in front of, behind, and next to.
- Correctly name two-dimensional shapes (circle, triangle, square, rectangle).
- Compose larger shapes by combing simple shapes.
- Identify shapes as either flat or solid (building to understanding of two-dimensional and three-dimensional shapes).

LESSON	INSTRUCTIONAL FOCUS
61	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 31. • Use ordinal numbers first, second, and third. • Identify and describe flat shapes: circle, triangle, square, rectangle.
62	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 32. • Demonstrate understanding of ordinal numbers first, second, and third. • Classify triangles and circles. • Compare triangles to circles.
63	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 33. • Use ordinal numbers first through fourth. • Classify rectangles and squares. • Compare rectangles to triangles and circles.
64	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 34. • Use ordinal numbers first through fifth. • Describe and create circles.
65	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 35. • Demonstrate understanding of ordinal numbers first through sixth. • Create flat shapes with varying side length.
66	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 36. • Use ordinal numbers first through seventh. • Create flat shapes with varying side length.
67	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens up to 37. • Use ordinal numbers first through eighth to describe the relative position of shapes.

| 68 | **Students will:**
• Participate in Calendar Math activities.
• Count by ones and tens up to 38.
• Use ordinal numbers first through ninth.
• Match shapes to their attributes.
• Compare lengths using the terms longer and shorter. |
| 69 | **Students will:**
• Participate in Calendar Math activities.
• Count by ones and tens up to 39.
• Use ordinal numbers first through tenth.
• Create pictures by combining and arranging shapes. |
| 70 | **Students will:**
• Participate in Calendar Math activities.
• Count by ones and tens up to 40.
• Count on from a given number to 20.
• Use ordinal numbers first through tenth.
• Identify matching shapes. |

Term Preparation

- Create Shape Cards (two sets of 12). Each one should take up an entire sheet of A4 paper. These will be used throughout the term.
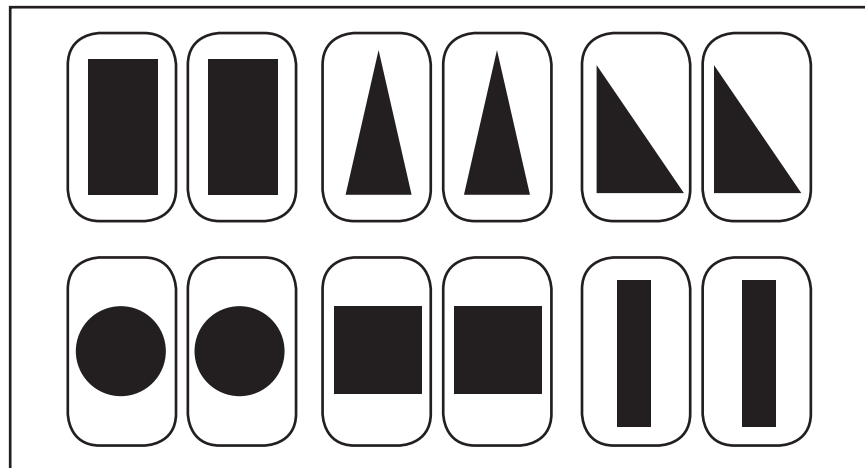

- Create a **Zoo Can**. Like **Calling Sticks**, a **Zoo Can** will be a container that holds names of different animals written on sticks. Write down animals that have been used for Movement Math, such as snake, crocodile, and hippopotamus. Create at least 10 different animals that can have a movement associated with them. List the animal names and then either decide what the movement would look like when the stick is pulled, or ask the class to help you decide.
    - Examples: ibis (move your arms like wings), elephant (turn your hands into a trunk), otter (bob your head up and down)

  The **Zoo Can** will be used in Movement Math to help internalize counting with movement. It can also be used throughout the day when students need repetition and practice using a different method.

Chapter Preparation

- For **Lessons 62 and 63**:
  - Hand draw or cut out of newspapers and magazines images of circles, triangles, squares, and rectangles (at least eight of each). Examples: pictures of tires, pictures of coins, pictures of bike frames, advertisements for cereal, pictures of the pyramids

- In **Lesson 64**, students will create mobiles. Provide/prepare the following materials:
  - One paper plate per student plus one for the teacher.
  - Photocopied or hand-drawn papers for each shape: circle, square, rectangle, and triangle.
    * Create one page of circles, one page of squares, one page of rectangles, and one page of triangles.
    * The shapes should be different sizes and each paper should contain at least five shapes.
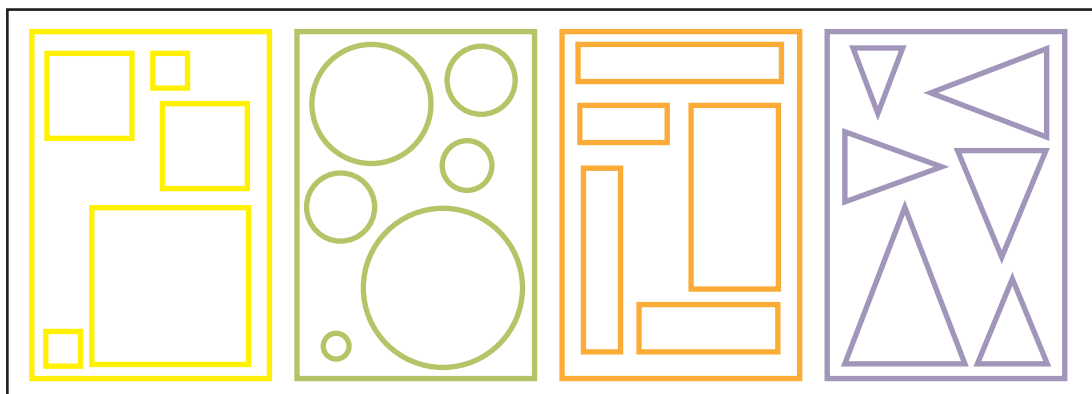
    * One envelope per student to hold the shapes, with their name labeled on the front.
    * Six pieces of precut string in varying lengths (15 - 30 cm) per student.
    * A hole punch, stapler, or piece of tape to attach shapes to strings and plate.

- Create a model of a completed mobile so students can see the finished product.
  - Use the shape sheets as listed above (circle, triangle, square, and rectangle). Color all shapes a solid color—either red, yellow, or blue. Make sure to use each color at least once per shape.
  - Cut out the shapes.
  - Draw a shape picture on the front of the paper plate. Example: a tall rectangle building, a circle sun, a stack of small squares for a tree with triangle branches and leaves.
  - Attach string to six shapes. (There will be some shapes left over.) Be sure to use each shape at least once.
  - Glue the leftover shapes to the back of the paper plate.
  - Use a hole punch, tape, or staples to attach the strings to the paper plate. Be sure to space the strings out so the shapes hang freely.

- Have extra materials available so you can create a mobile along with the students, so they can see the step-by-step process.

Teaching Strategies Used

See pages 3-5 of this guide for detailed instructions:

- **Calling Sticks**
- **Zoo Can**
- **Shoulder Partner**
- **Venn Diagram**
- **Popcorn**
- **Thumbs Up**
- **Wait Time**
- **Whisper**
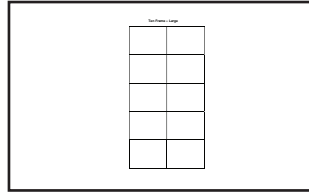
Materials Used

Calendar math area

Math journal and pencil
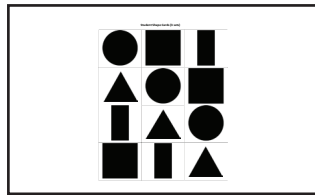
Ten frames

Zoo can

Chart paper

Shape cards

Collection of different triangle, circle, square, and rectangle shapes

Glue or tape

Crayons
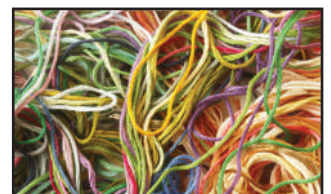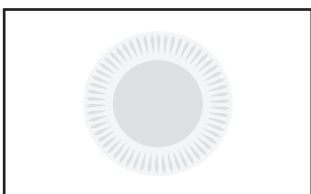
Envelopes

Scissors

Hole punch

Stapler

Handouts of variously-sized shapes

Extra paper

String or yarn

Paper plates

Lesson 61 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 31.
- Use ordinal numbers first, second, and third.
- Identify and describe flat shapes: circle, triangle, square, rectangle.

KEY VOCABULARY

- Circle
- First
- Ordinal numbers
- Rectangle
- Second
- Square
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (three from previous lesson and one blank one)
- **Zoo Can**
- Chart paper
- Shape cards (two sets of 12): If there are more than 24 students in the class, they can work in pairs or small groups so that all have a card.

LESSON PREPARATION FOR THE TEACHER

- Create a **Zoo Can**. (See Term Preparation for instructions and examples.)
- Have a large piece of chart paper that will be displayed throughout the lessons on shapes. Alternatively, a special recording space on the board could be used.
- Create shape cards. (See Term Preparation for instructions and examples.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Using **Calling Sticks**, choose a student to lead Calendar Math.

STUDENTS DO: Selected student goes to the front of the class to lead Calendar Math.

TEACHER SAY: _____ (Student's name) is going to help us with our calendar routine. Today they will also lead us by adding, "Today is…", "Yesterday was…", and "Tomorrow will be…"

2. TEACHER DO: Let the student walk the class through the routine. They should say/do the following and ask the class to repeat:
- The names of all of the months
- The current month
- The current day of the week
- All days of the week in order
- Point to the date on the calendar
- Today's date: "Today is (current day) the (current date) of (current month) (year)."
- Today, yesterday, and tomorrow with hands pointing down beside (today), hands pointing behind (yesterday), and hands pointing in front (tomorrow)

3. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today we are going to practice counting to 20 like an animal.

TEACHER DO: Pick up **Zoo Can**.

TEACHER SAY: Inside this can I have written the names of all types of zoo animals on sticks. Today, we will try using our new sticks for Movement Math.

TEACHER DO: Hold up one finger.

TEACHER SAY: First, I will pick a stick and read the name of the animal.

TEACHER DO: Hold up two fingers.

TEACHER SAY: Second, I will show you the movement that we will use to count like the animal.

TEACHER DO: Hold up three fingers.

TEACHER SAY: Third, we will count to 20 like the animal while making the movement. There are three steps: a first, a second, and a third. Can you turn to your Shoulder Partner and whisper what the first step is?

STUDENTS DO: Whisper to each other that first the teacher will pick a stick.

TEACHER SAY: Right, first I pick a stick. Can you hold up one finger like me to show that picking the stick is the number one or first step?

STUDENTS DO: Hold up one finger.

TEACHER DO: Pick a stick from the **Zoo Can**.

TEACHER SAY: My first step was to pick a stick from the can. I got the animal _____ (animal's name). Now, I have forgotten, what is my second step? Can someone raise their hand and remind me of my second step? What comes next?

TEACHER DO: Hold up two fingers.

STUDENTS DO: Raise their hands and share that the second step is to show the animal's movement.

TEACHER SAY: That is right. The second step is to show you the movement. Can you all hold up your second finger like me? Notice that I have two fingers up right now: one for my first step and one for my second. Now my animal was _____ (name the animal). Let's make our movement be _____ (pick a movement). Remember, every time we say the number, we make the movement.

STUDENTS DO: Hold up two fingers.

TEACHER SAY: OK, we have our animal and our movement. Those were our first two steps. What was the third one?

TEACHER DO: Hold up three fingers.

TEACHER SAY: Can you all Whisper the answer into the room on the count of three? Ready? 1, 2, 3, whisper.

STUDENTS DO: Whisper into the room that they now count to 20.

TEACHER SAY: Great, now we have our third step. Today's Movement Math has three steps. Count them on your fingers with me. First, we pick a stick. Second, we choose a movement, and third, we count to 20 with the movement. First, second, and third are called ordinal numbers. They show us the order of our steps.

STUDENTS DO: Count steps on their fingers along with the teacher.

TEACHER SAY: Now, let's all count to 20 like the _____ (animal's name). Remember to do the movement.

👥 **STUDENTS DO:** Animal movement to count to 20.

4. TEACHER SAY: Now, let's look at our ten frames. Today is a special day. We have three complete ten frames and we need to add one more dot to show today. Since our ten frames are full, what do we need to do?

👥 **STUDENTS DO:** Respond together, "Add a ten frame."

TEACHER DO: Add a new ten frame and add a dot to the ten frame.

TEACHER SAY: Can I have a volunteer come up and touch each dot on the ten frame and help us count by ones?

👥 **STUDENTS DO:** Raise their hands to volunteer.

TEACHER SAY: _____ (Student's name) will help us count today. Please count along with them.

👥 **STUDENTS DO:** Count aloud together.

TEACHER SAY: Now, let's do a ten frame cheer to count by tens. We will count by tens like this: First, we'll touch the floor and say 10.

TEACHER DO: Touch the floor and say 10.

TEACHER SAY: Second, we will put our hands on our hips and say 20.

TEACHER DO: Put hands on hips and say 20.

TEACHER SAY: Third, we will put our hands over our heads and say 30.

TEACHER DO: Put hands over head and say 30.

TEACHER SAY: Then we will hold up one finger and say 1.

TEACHER DO: Hold up one finger and say 1.

TEACHER SAY: Watch as I put the steps together and join me when you know what to do.

TEACHER DO: Chant 10, 20, 30, and 1 while putting hands on floor, hips, overhead, and then holding up one finger. Repeat until all children understand and can follow along at least four times.

👥 **STUDENTS DO:** Chant 10, 20, 30, 1 while going through the cheer.

TEACHER SAY: Great counting.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today, we are going to look at shapes. Can you use your brains and go back to earlier in the year when we first talked about shapes? Can you turn and tell your Shoulder Partner what shapes you remember?

👥 **STUDENTS DO:** Turn and talk to their partners.

TEACHER SAY: If you can tell me a shape, please raise your hand. I will draw your shape and write its name on our chart paper.

👥 **STUDENTS DO:** Raise their hands. Selected student names a shape.

TEACHER SAY: Great job. You said _____ (shape's name). I need help remembering how to draw that shape. Can you describe to us what the shape looks like?

STUDENTS DO: Describe what the shape looks like.

Note to the Teacher: Students may describe number of sides or say things like, "A circle looks like the sun." This is an opportunity to see what students remember from the earlier unit and is a way to assess their prior knowledge to inform instruction.

TEACHER DO: Listen as the student describes the shape and draw it on the chart paper. If the student gets stuck, let them ask a colleague to help them with the description.

TEACHER SAY: Great job describing a _____ (shape's name). Now, _____ (student's name) will call on another student to share a different shape with our class. Please raise your hand if you can think of another shape to add to our list.

STUDENTS DO: First student calls on another student. Selected student names and describes a shape.

TEACHER DO: Continue this process until the students have listed the shapes circle, triangle, square, and rectangle. If they do not remember those shapes, list the ones they know and describe the rest to them.

Note to the Teacher: The classification of the shapes will be studied in greater detail later. For now, shapes can be described with the number of sides.

2. TEACHER DO: Gather the shape cards.

TEACHER SAY: Wonderful job remembering the shapes. Now we are going to play a game. I have in my hand some shape cards. Let's look through them together. I will hold up a card. When you know the shape, give me a Thumbs Up.

TEACHER DO: Show the first card. Provide **Wait Time**.

STUDENTS DO: Give a **Thumbs Up** when they know the answer.

TEACHER SAY: On the count of three, Whisper into the air the name of the shape on the card. 1, 2, 3.

STUDENTS DO: Whisper the shape name.

TEACHER SAY: Great. This shape is a _____ (shape's name). Now let's do the same thing with the rest of the cards. First, I will show you the card. Second, you will give a Thumbs Up when you know. Third, I will ask you to say the name aloud in a Whisper.

TEACHER DO: Follow the steps above to go through the deck of shape cards with the students so they see all of the shapes one time.

TEACHER SAY: Now I am going to give each of you (or you and your partner, or you and your group, depending on how you have structured the activity) a card. I want you to look at the card and decide if you have a square, rectangle, circle, or triangle.

TEACHER DO: Hand out the cards to the students.

STUDENTS DO: Identify shapes given to them by the teacher.

TEACHER SAY: Now turn and whisper to your Shoulder Partner what shape you have. If you and your partner(s) agree, give a Thumbs Up.

STUDENTS DO: Talk to their partners. Give a **Thumbs Up** if they agree.

TEACHER DO: Look at the class. If any do not have their thumbs up, talk to them about what shape they have.

TEACHER SAY: Great. Now that we know our shapes, let's play a game with them. If you have a triangle, please stand up. You will be first. These special instructions are for the students with triangles.

STUDENTS DO: Stand if they have triangles.

TEACHER SAY: Now, listen to my instructions. First, hold your triangle high.

STUDENTS DO: Hold their triangles in the air.

TEACHER SAY: Second, count to 4.

STUDENTS DO: Count to 4.

TEACHER SAY: Third, sit back down.

STUDENTS DO: Sit back down.

TEACHER SAY: Great job triangles. If you have a circle, please stand up.

STUDENTS DO: Stand if they have circles.

TEACHER SAY: First, show your card. Second, clap three times, and third, sit back down.

STUDENTS DO: Follow the directions.

TEACHER SAY: If you have square, please stand up. First, show your card. Second, jump two times. Third, sit back down.

STUDENTS DO: Follow the directions.

TEACHER SAY: If you have a rectangle, please stand up. First, show your card. Second, hop on one foot three times. Third, sit back down.

Note to the Teacher: This game can be played several times if students need to review the shapes. They can also trade cards and work with a different shape.

Share (5-10 minutes)

Directions

1. TEACHER SAY: We talked about four shapes today. I want you to turn and talk to your **Shoulder Partner** and see how many of those shapes you can remember.

STUDENTS DO: Take **Think Time**, then talk to their **Shoulder Partners** about their ideas.

TEACHER DO: Use **Calling Sticks** to select students to share their thinking. Notice if they have an easier time recalling the shapes now that they have reviewed them.

STUDENTS DO: Selected students share their thinking. Others listen attentively.

TEACHER SAY: Nice work today with shapes. As you continue through your day, pay attention to the shapes of the things around us. Look around and see if you can find circles, squares, rectangles, and triangles in our world.

Lesson 62 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 32.
- Demonstrate understanding of ordinal numbers first, second, and third.
- Classify triangles and circles.
- Compare triangles to circles.

KEY VOCABULARY

- Circle
- Corner
- First
- Investigate
- Second
- Side
- Third
- Triangle

MATERIALS

- Calendar Math Area
- **Zoo Can**
- Four ten frames (from previous lesson)
- Two pieces of chart paper: one labeled Circles and one labeled Triangles
- A collection (at least eight of each) of different triangle shapes and circles either drawn, cut out from magazines and newspapers, or a combination of both
- Glue or tape to put the images on the chart paper

LESSON PREPARATION FOR THE TEACHER

- Post two pieces of chart paper: one labeled Triangles and one labeled Circles.
- Hand draw or collect from newspapers and magazines images of triangles and circles (at least eight of each). (See Chapter Preparation for instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: In our last class we practiced counting to 20 like an animal. Do you remember? We had three steps for our Movement Math. Can you remember what the first step was? Whisper the answer into your hand.

STUDENTS DO: Whisper, "Pick a stick," into their hands.

TEACHER SAY: Right. Our first step was to pick a stick from the Zoo Can.

TEACHER DO: Pick a stick and read the animal name to the class.

TEACHER SAY: Raise your hand if you can tell me the second step.

STUDENTS DO: Raise their hands. Selected student responds: Choose a movement for the animal.

TEACHER SAY: That is right. Let's see, our animal is _____ (animal's name). Let's all _____ (movement) while we count like this animal. Great. We had one last step, our third step. What was the third step? Turn and tell your Shoulder Partner what our third step is.

STUDENTS DO: Turn and tell their partners that the third step is to count from 1 to 20 while doing the animal's movement.

TEACHER SAY: Great. Our third step is to now count to 20 like a _____ (animal's name) doing _____ (movement) for each number. We are now ready for our third step. Let's count together.

STUDENTS DO: Count to 20 moving like the animal.

3. TEACHER SAY: Very good. Now, let's look at our ten frames. We need to add one more dot to our ten frame to show today. Then we will count together.

TEACHER DO: Add a new dot to the ten frame. Select a volunteer to touch each dot on the ten frame and count aloud by ones.

STUDENTS DO: Selected student touches the dots on the ten frame and counts them aloud by ones. Seated students count aloud together.

TEACHER SAY: Now, let's do a ten frame cheer to count by tens. We will count by tens like this: First, we will touch the floor and say 10.

TEACHER DO: Touch the floor and say 10.

TEACHER SAY: Second, we will put our hands on our hips and say 20.

TEACHER DO: Put hands on hips and say 20.

TEACHER SAY: Third, we will put our hands over our head and say 30.

TEACHER DO: Put hands over head and say 30.

TEACHER SAY: Then we will hold up our fingers to count by ones. Look at our ten frames. We have three full frames and how many ones in the new frame? Show me on your fingers.

STUDENTS DO: Hold up two fingers.

TEACHER SAY: That is right. We have 2 ones. Watch as I put the steps together and join me when you know what to do.

TEACHER DO: Chant 10, 20, 30, and 1, 2 while putting hands on floor, hips, overhead, and then holding up one and then two fingers. Repeat until all children understand and can follow along three times.

STUDENTS DO: Chant 10, 20, 30, 1, 2 while going through the cheer.

TEACHER SAY: Great counting.

Learn (25-30 minutes)

Directions

TEACHER SAY: Today, we are going to continue our investigation into shapes. When we investigate something, we look at it closely. First, let's remember the shapes we explored during our last math class. I am going to pick a Calling Stick. If I call your name, please tell the class one of the shapes from our last class. You can look at our shape poster if you get stuck.

TEACHER DO: Use Calling Sticks to select students.

STUDENTS DO: Selected students identify one of the shapes they explored: circle, square, rectangle, or triangle.

TEACHER SAY: Great job remembering. We are going to further investigate, or look at closely, triangles and circles. I have two empty pieces of chart paper behind me. One is labeled Circles and the other is labeled Triangles. I have in my hands different pictures of triangles and circles. I need you to help me sort them.

TEACHER DO: Hold up a picture of a triangle.

TEACHER SAY: Can you Whisper like a mouse and tell me what the name of this shape is?

👥 STUDENTS DO: Whisper, "Triangle."

TEACHER SAY: Yes. This is a triangle. It has three sides. Let's count the three sides together.

👥 STUDENTS DO: Count to 3 while the teacher points to each side.

TEACHER SAY: A triangle also has three corners. Let's count the three corners together.

👥 STUDENTS DO: Count to 3 while the teacher points to each corner.

TEACHER SAY: Great. What do you notice about the number of sides?

TEACHER DO: Point to the sides of the triangle and count 1, 2, 3.

TEACHER SAY: And the number of corners?

TEACHER DO: Point to the corners and count 1, 2, 3.

TEACHER SAY: If you notice something, please touch your nose.

👥 STUDENTS DO: Touch their noses. Selected students share their thinking, and should note that a triangle has the same number of sides and corners, three.

TEACHER SAY: That is right. Triangles all have three sides and three corners. That is what makes a triangle a triangle. Now, let's add this triangle to the triangle poster.

TEACHER DO: Glue or tape the triangle onto the poster.

TEACHER SAY: Now, let's look at another shape.

TEACHER DO: Hold up a picture of a circle.

TEACHER SAY: I know that in order for this shape to be a triangle, it has to have three sides and three corners. Does this shape have three sides and three corners? Let me hear from all of you.

👥 STUDENTS DO: Respond together: No.

TEACHER SAY: You are right. This shape has no sides and no corners. It cannot be a triangle. What shape is this? Can you roar the name of the shape like a lion?

👥 STUDENTS DO: Roar, "Circle."

TEACHER SAY: That is right. This is a circle. Let's add it to the circle chart.

TEACHER DO: Glue or tape the circle to the circle chart.

TEACHER SAY: Now, let's look at the rest of the shapes in my stack and sort them. I am going to pick a Calling Stick and give that student a shape. First, they are going to tell us what shape it is. Second, they will tell us how they know. Third, they will add the shape to the right chart.

TEACHER DO: Pull a **Calling Stick**. Ask the student to come to the front of the room. Hand them a shape. Remind them of the steps, if necessary.

👥 STUDENTS DO: Move through the steps of identifying, explaining, and sorting.

TEACHER DO: Repeat the steps with all of the cards, making sure students can explain their thinking.

STUDENTS DO: Sort all of the shapes and explain their thinking.

TEACHER SAY: Great job investigating shapes today.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for our Share time, I want you to think how you would tell someone younger than you the difference between a circle and a triangle. Try to use our new words: side and corner. Please take a moment to think about how you would explain how to tell the shapes apart. When you have an idea, give a Thumbs Up.

STUDENTS DO: Think and give a **Thumbs Up** when they know.

TEACHER DO: Call on several students to explain their thinking.

STUDENTS DO: Share if called on to share or listen attentively to classmates.

TEACHER SAY: Great job investigating circles and triangles today. Now that you know the differences between them, try to explain it a younger friend or sibling tonight. See if you can help teach them the difference between a circle and a triangle using your new words: side and corner.

Lesson 63 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 33.
- Use ordinal numbers first through fourth.
- Classify rectangles and squares.
- Compare rectangles to triangles and circles.

KEY VOCABULARY

- Circle
- Corner
- First
- Fourth
- Investigate
- Longer
- Rectangle
- Second
- Shorter
- Side
- Square
- Third
- Triangle

MATERIALS

- Calendar Math Area
- **Zoo Can**
- Four ten frames (from previous lesson)
- Two pieces of chart paper: one labeled Squares and one labeled Rectangles
- A collection (at least eight of each) of different squares and rectangles either drawn, cut out from magazines and newspapers, or a combination of both
- Glue or tape to put the images on the chart paper

LESSON PREPARATION FOR THE TEACHER

- Post two pieces of chart paper: one labeled Squares and one labeled Rectangles.
- Hand draw or collect from newspapers and magazines images of squares and rectangles (at least eight of each). (See Chapter Preparation for instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: We have practiced our three-step animal movement counting two times. Can you turn and tell your Shoulder Partner the three steps? What did we do first, second, and third?

STUDENTS DO: Turn and talk to their partners.

TEACHER SAY: Let's all say the steps together, but you have to be sure to use the words first, second, and third. Are you ready?

STUDENTS DO: Confirm they are ready, then say the steps aloud with the teacher using the words first, second, and third.

TEACHER SAY: Wonderful. We are going to add another step, so we will now have four steps. My first step will still be to choose a stick from the Zoo Can, but my second step will be to pick a Calling Stick. That student will then come to the front of the class and do the third step. They will pick the animal movement. Then they will lead us in our fourth step of counting to 20. We are adding one new step to our routine. Can someone raise their hand and remind us what the new step is?

STUDENTS DO: Raise their hands. Selected student explains that the new step is that a student will lead the Movement Math.

TEACHER SAY: Great. Our new step is that I will choose one of you to lead Movement Math, just like we do Calendar Math. You all are getting so smart.

TEACHER DO: Pick a stick, read the animal, and pick a **Calling Stick**.

STUDENTS DO: Selected student goes to the front of the room, chooses a movement to go along with the animal, and then leads the class in counting to 20 like that animal.

TEACHER SAY: Wonderful job. Let's thank our classmate for leading Movement Math as they return to their seat.

STUDENTS DO: Congratulate classmate as they return to their seat.

3. TEACHER SAY: Let's look at our ten frames. First, we need to add one more dot to our ten frame to show today. Second, we will count together.

TEACHER DO: Add a new dot to the ten frame. Select a volunteer to come up and touch each dot on the ten frame and aloud count by ones.

STUDENTS DO: Selected student touches the dots on the ten frame and counts them aloud by ones. Seated students count aloud together.

TEACHER SAY: Now, let's do our ten frame cheer to count by tens. Remember we touch the floor for 10, our hips for 20, raise our arms for 30, and then count the ones on our fingers. Look at our ten frames. We have three full frames and how many ones in the new frame? Show me on your fingers.

STUDENTS DO: Hold up three fingers.

TEACHER SAY: That is right. We have 3 ones. Let's put the steps together and count to 33.

TEACHER DO: Lead ten frame cheer, repeating three times with the class.

STUDENTS DO: Participate in ten frame cheer.

TEACHER SAY: Great counting.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today we are going to continue our investigation into shapes. When we investigate something, we look at it closely. In our last math class, we looked at triangles and circles. Triangles have three of something. Can anyone remember what they have three of? Give a Thumbs Up if you know.

STUDENTS DO: Give **Thumbs Up** to volunteer. Selected students answer the question.

TEACHER DO: If students do not remember the words side and corner, review the terms with them.

TEACHER SAY: Great job remembering. Today we are going to further investigate, or look at closely, squares and rectangles. I have two empty pieces of chart paper behind me. One is labeled Squares and the other is labeled Rectangles. And just like in our last math class, I have in my hands different pictures of squares and rectangles. I need you to help me sort them.

TEACHER DO: Hold up a picture of a rectangle.

TEACHER SAY: Can you tell me what the name of this shape is?

STUDENTS DO: Respond together: Rectangle.

TEACHER SAY: Yes. This is a rectangle. Can you show me on your fingers how many sides you think it has?

STUDENTS DO: Hold up four fingers.

TEACHER SAY: It has four sides. Let's count the four sides together.

STUDENTS DO: Count to 4 while the teacher points to each side.

TEACHER SAY: How many corners do you think a rectangle has? Can you show me that number on your fingers?

STUDENTS DO: Hold up four fingers.

TEACHER SAY: A rectangle also has four corners. Remember, a corner is where the sides meet. Let's count the four corners together.

STUDENTS DO: Count to 4 while the teacher points to each corner.

TEACHER SAY: Great. What do you notice about the number of sides (point to each side) and the number of corners (point to each corner) that a rectangle has? If you notice something, please touch your nose.

STUDENTS DO: Touch their noses. Selected students explain that a rectangle has the same number of sides and corners, four.

TEACHER SAY: That is right. All rectangles have four sides and four corners.

TEACHER DO: Put the rectangle onto the poster.

2. TEACHER SAY: Now, let's look at another shape.

TEACHER DO: Hold up a picture of a square.

TEACHER SAY: Hmm…. let's see… what do you think this shape is? Can you hiss the name of this shape like a snake?

STUDENTS DO: Hiss together: Square.

TEACHER SAY: Let's take a look at this shape. We decided that a rectangle has four sides. Let's count the number of sides on this shape.

TEACHER DO: Point and count the sides.

STUDENTS DO: Count to four while the teacher points to each side.

TEACHER SAY: It has four sides like a rectangle. Let's count the corners and see if it has four corners like a rectangle.

TEACHER DO: Point and count the corners.

STUDENTS DO: Count to four while the teacher points to each corner.

TEACHER SAY: Yes, it also has four corners like a rectangle. But it looks different from the rectangle. How is it different? Turn and talk to your Shoulder Partner.

STUDENTS DO: Turn and talk to their partners.

TEACHER DO: Provide **Wait Time** to think about this problem and listen in on some of their conversations. Call on students to share their thinking.

STUDENTS DO: Selected students share their thinking.

TEACHER SAY: This shape is a square AND a rectangle. It has all the same requirements that a rectangle has—four corners and four sides—but there is something special about the sides of a square. Can you see how they are different than the sides of a rectangle? A square is a

special type of rectangle because all of the sides are the same length. **What do you notice about the sides of the rectangle compared to the sides of the square? Touch your nose if you notice something.**

STUDENTS DO: Touch their noses. Selected students should note that the rectangle has two sides that are longer (or two sides that are shorter). The sides of the square are all the same size.

Note to the Teacher: A rectangle has opposite sides parallel and the same length. At this age, students may express this by saying, "Those two sides look the same/match/are the same length but not all sides are the same." This concept can be briefly introduced at this point but will be more formally explained in later years. They DO need to know that the sides of a square are all the same length. If this does not come up in the conversation, point it out.

3. TEACHER SAY: Let's investigate the rest of the shapes in my stack and sort them into squares or rectangles. I am going to pick a Calling Stick and give that student a shape. First, they will tell you what shape they think it is. Second, they will look at the length of the sides. Third, they will tell us why they think it is either a square or a rectangle. Fourth, they will add the shape to the right chart.

TEACHER DO: Pull a **Calling Stick**, ask the student to come to the front of the room, and hand them a shape. Remind student of steps, if needed.

STUDENTS DO: Selected student goes to the front of the room, takes a shape from the teacher, examines the sides, and adds the shape to the poster.

TEACHER DO: Repeat the steps with all of the shapes, making sure students can explain their thinking.

STUDENTS DO: Continue to sort all shapes, following the steps and adding the shapes to the poster.

TEACHER SAY: Great job investigating shapes today.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for our Share time, I want you to think about how you would explain to someone younger than you the difference between a rectangle, a square, a circle, and a triangle. Please take a moment to think about how you would explain it to your younger friend or sibling. When you have an idea, give a Thumbs Up.

STUDENTS DO: Think and give a **Thumbs Up** when they have an idea. Selected students share if called. All students listen attentively to classmates.

TEACHER SAY: Great job investigating squares and rectangles today. Now that you know the differences between several shapes, try explaining them to a younger friend or sibling tonight.

Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 34.
- Use ordinal numbers first through fifth.
- Describe and create circles.

KEY VOCABULARY

- Circle
- Corner
- Fifth
- First
- Fourth
- Longer
- Mobile
- Rectangle
- Second
- Shorter
- Side
- Square
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- **Zoo Can**
- Completed mobile
- Crayons (Three colors per student. They will use the same three throughout this project.)
- Envelopes (one per student, labeled with student's name)
- Handout with at least five circles of varying sizes (one per student)
- Scissors (one per student or pair of students)
- Tape and/or glue/glue stick
- Hole punch (optional)
- Stapler (optional)

LESSON PREPARATION FOR THE TEACHER

- Have complete mobile to model finished product. (See Chapter Preparation for Teacher for instructions.)
- Have materials for student mobiles, including envelopes labeled with students' names. (See Chapter Preparation for Teacher for instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: We have practiced our four-step animal movement counting. Can you turn and tell your Shoulder Partner the four steps? What did we do first, second, third, and fourth? Use the words first, second, third, and fourth.

STUDENTS DO: Turn and talk to their partners. Use the words first, second, third, and fourth in their explanations.

TEACHER SAY: Great. All of you are getting so smart. I will pick a zoo stick for our first step.

TEACHER DO: Pick a stick and read aloud the name of the animal.

TEACHER SAY: Second, I will pick a Calling Stick.

STUDENTS DO: Selected student goes to the front of the room, chooses a movement to go along with the animal, and then leads the class in counting to 20 like that animal.

TEACHER SAY: Wonderful job. Let's thank our classmate for leading Movement Math as they return to their seat.

Note for the Teacher: After today's lesson, this section will be abbreviated to: Complete Ten Frame Activity. Each day, students should continue to add a new dot to their ten frames, adding new ten frames as needed, and practice counting by ones and tens aloud together. Select a helper each day to encourage and motivate

all students. Refer to this lesson or previous lessons for instructions as needed.

3. TEACHER SAY: Now, let's look at our ten frames. What is our first step? Please Whisper the first step into your hand. Say, "Our first step is to…"

STUDENTS DO: Whisper first step into their hands, "Our first step is to add one more dot to the frame."

TEACHER SAY: Yes, first we add one more dot to the ten frame. What is our second step? Say it aloud and use the word second.

STUDENTS DO: Explain that the second step is that a volunteer points to each dot while we count together.

TEACHER SAY: Yes. We have a volunteer point to each dot while we count together. Great job using first and second. Can I have a volunteer come up and touch each dot on the ten frame and help us count by ones?

STUDENTS DO: Raise their hands to volunteer.

TEACHER SAY: _____ (Student's name) will help us count today. Please count along with _____ (student's name).

STUDENTS DO: Count aloud together.

TEACHER SAY: Can I have a brave volunteer lead us in our ten frame cheer? Remember, we touch the floor for 10, our hips for 20, raise our arms for 30, and then count the ones on our fingers. Look at our ten frames. We have three full frames and how many ones in the new frame? Show me on your fingers.

STUDENTS DO: Hold up four fingers.

TEACHER SAY: That is right. We have 4 ones. Please raise your hand if you would like to be brave and lead the class in our cheer.

STUDENTS DO: Raise their hands.

TEACHER DO: Choose a student to lead the cheer.

TEACHER DO: Lead ten frame cheer, repeating three times with the class.

STUDENTS DO: Participate in ten frame cheer.

TEACHER SAY: Great counting.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Who can remind us what we did in our last math class? We have been talking about shapes. Tell your Shoulder Partner what you have learned about shapes so far. Try to use the words sides and corners.

STUDENTS DO: Turn and talk to their partners.

TEACHER SAY: Today, we are going to start an art project using the shapes we are learning about. We are going to create a mobile. A mobile is a piece of art that moves. Our mobiles will be a collection of shapes that move. When we are finished, we will hang our artwork so the shapes can move freely.

TEACHER DO: Show students a completed mobile.

STUDENTS DO: Observe mobile and ask questions, if needed.

TEACHER SAY: Today, you are going to make the circles for your mobile. You and your Shoulder Partner will be working together. You will be sharing three crayons: red, blue, and yellow (or three other colors you prefer). First, I will give each of you a sheet with circles on it.

TEACHER DO: Show students handouts with circles.

TEACHER SAY: Second, you and your partner will use the three crayons to color your circles. Make sure you use each crayon at least one time. Third, you will cut out your circles. Fourth, you will put them into an envelope.

TEACHER DO: Show students the envelopes.

TEACHER SAY: Who can tell me what our first step is using the word first? Please raise your hand.

STUDENTS DO: Raise their hands. Selected student says, "First, you will give us our circles."

TEACHER SAY: What is our second step?

TEACHER DO: Continue to call on a student after asking each question. If necessary, help each student use the terms second, third, and fourth.

STUDENTS DO: Raise their hands. Selected students explain the remaining steps using the words second, third, and fourth.

2. TEACHER DO: Hand out crayons, circle handouts, scissors, and envelopes.

STUDENTS DO: Complete the activity in the order listed above.

Note to the Teacher: Students can write their initials on the backs of their shapes, so they do not get confused with their partner's shapes. Depending upon their level, they may also be able to write their complete name. If students are unable to write letters or their name, have them draw a small picture they can identify as their own later.

TEACHER DO: Walk around the classroom and make sure that all students are following the steps for completing the activity.

TEACHER SAY: Great work today. Put all of your circles in your envelope. We will need them for Share today.

STUDENTS DO: Place all circles in their envelopes.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Please take out your circles and put them on top of your envelopes.

STUDENTS DO: Place their circles on top of their envelopes.

TEACHER SAY: Now, turn to your Shoulder Partner and answer the following question: How many blue circles do each of you have?

STUDENTS DO: Talk to Shoulder Partner about how many blue circles they each have.

TEACHER SAY: Talk to your Shoulder Partner again, but this time work together to figure out how many blue circles you have all together. For example, if I had two blue circles and my Shoulder Partner had one, we have three blue circles all together. When you know and agree on an answer, please give me a Thumbs Up.

STUDENTS DO: Talk to **Shoulder Partner** about how many blue circles they have all together. Give **Thumbs Up** when ready.

TEACHER SAY: Hold up your fingers to show me how many circles you have in all. For example, if my Shoulder Partner and I have three blue circles all together, we would both hold up three fingers.

TEACHER DO: Hold up three fingers.

STUDENTS DO: Use their fingers to show the total number of circles.

TEACHER DO: Repeat above with yellow, red, and the TOTAL number of circles all together.

STUDENTS DO: Work with **Shoulder Partner** to count the yellow, red, and total number of circles all together. Hold up fingers to show totals.

Lesson 65 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 35.
- Demonstrate understanding of ordinal numbers first through sixth.
- Create flat shapes with varying side length.

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

KEY VOCABULARY

- Circle
- Corner
- Fifth
- First
- Fourth
- Longer
- Rectangle
- Second
- Shorter
- Side
- Third
- Sixth
- Square
- Triangles

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- **Zoo Can**
- Completed mobile
- Crayons (Three colors per student. They will use the same three throughout this project.)
- Envelopes (one per student, labeled with student's name)
- Handout with at least five squares of varying sizes (one per student)
- Handout with at least five rectangles of varying sizes (one per student)
- Scissors (one per student or pair of students)
- Tape and/or glue/glue stick
- Hole punch (optional)
- Stapler (optional)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today for Movement Math we are going to try something new. I need a volunteer to raise their hand. When I call on you, please come to the front of the classroom and stand.

STUDENTS DO: Raise their hands.

TEACHER DO: Call on one student volunteer.

TEACHER SAY: _____ (Student's name) is our first volunteer. _____ (Student's name) will stand at the front of the line, right here.

TEACHER DO: Indicate where the front of the line will be.

TEACHER SAY: May I have another volunteer?

STUDENTS DO: Raise their hands.

TEACHER SAY: _____ (Student's name) is our second volunteer. _____ (Second student's name) will stand beside _____ (first student's name). Now I need a third volunteer. Can you please raise your hand if you would like to be our third volunteer?

STUDENTS DO: Raise their hands.

TEACHER SAY: _____ (Student's name) is our third volunteer. _____ (Third student's name) will stand beside _____ (second student's name). Now I need a fourth volunteer. Can you please raise your hand if you would like to be our fourth volunteer?

TEACHER DO: Continue until there are six volunteers at the front of the room. Write the numbers 1-6 on the board.

TEACHER SAY: Great, now we have six volunteers.

TEACHER DO: Gesture to each number on the board and student in line as you review who is first, second, third, fourth, fifth, and sixth.

TEACHER SAY: _____ (Student's name) is first, _____ (student's name) is second, _____ (student's name) is third, _____ (student's name) is fourth, _____ (student's name) is fifth, and _____ (student's name) is sixth. Each of these students is going to create a movement for us. They may decide for us to clap our hands, shake our hips, nod our heads, or make some other movement. What would our first volunteer like their movement to be?

STUDENTS DO: The first volunteer gives a movement, such as clapping hands.

TEACHER SAY: Great. Our first movement will be to _____ (movement).

Note to the Teacher: Write this movement beside the number 1. Repeat this with all of the other movements given by students. This is for the teacher to remember, and because it will be added to in subsequent math classes. Write it somewhere where it will not be erased or removed.

TEACHER DO: Let's practice making that movement together.

STUDENTS DO: Make the movement.

TEACHER SAY: Wonderful. Now say it with me: First, we _____ (say the name of the movement while doing it). What will we do second? Let's ask _____ (second student's name). What would you like our second movement to be?

STUDENTS DO: Second volunteer offers a movement.

TEACHER DO: Write the movement by the number 2.

TEACHER SAY: Great. Our second movement will be to _____ (say the name of the movement). Let's practice making that movement together.

STUDENTS DO: Make the movement.

TEACHER SAY: Wonderful, now we will start with our first movement. Say it with me. First, we _____ (do and say the movement). Second, we _____ (do and say the movement). What will we do third? Let's ask _____ (third student's name). What would you like our third movement to be?

STUDENTS DO: Third volunteer offers a movement.

TEACHER DO: Write the movement by the number 3.

TEACHER SAY: Great. Our third movement will be to _____ (do and say the movement). Let's practice making that movement together.

STUDENTS DO: Make the movement.

TEACHER SAY: You all are getting very good at this. Let's start with our first movement again and see what we know. First, we _____ (do and say the movement). Second, we _____ (do and say the movement). Third, we _____ (do and say the movement). What will our fourth movement be? Let's ask _____ (name of fourth volunteer). What would you like our fourth movement to be?

👥 **STUDENTS DO:** Fourth volunteer offers a movement.

TEACHER DO: Write the movement by the number 4. Repeat the activity until all six volunteers have shared a movement, repeating all of them and adding a new one each time. When all six have shared, put them all together and practice it three times, making sure all students say the ordinal number and the name of the movement. When it is complete, it will sound something like: First we clap our hands, second we stomp our feet, third we shake our hips, fourth we nod our heads, fifth we make a thumbs up, and sixth we jump one time.

TEACHER SAY: Fantastic work using ordinal numbers. Remember they are called ordinal because they help us understand the order to go in. Will the first volunteer please sit down? Now, the second.

TEACHER DO: Continue until all volunteers are seated.

👥 **STUDENTS DO:** Return to their seats.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Ten Frame Activity. Count by ones and tens.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Who can remind us what we did in our last math class? We have been talking about shapes. Tell your Shoulder Partner either what you have learned about shapes so far or what our steps were yesterday on our mobiles.

👥 **STUDENTS DO:** Turn and talk to their partners.

TEACHER SAY: We will continue working on our shape mobile project today. Remember a mobile is a piece of art that moves. Your mobile will be a collection of shapes. Yesterday, you made circles for your mobile. Today, you will add rectangles and squares. You will share crayons and work with the same Shoulder Partner. First, I will give each of you a handout with squares on it. Second, I will give you a handout with rectangles on it.

TEACHER DO: Show students handouts.

TEACHER SAY: Third, you and your partner will use the three crayons to color your squares and rectangles. Make sure you use each crayon at least one time. Fourth, you will cut out your squares and rectangles. Fifth, you will put them into an envelope, and sixth, we will do some math with our new shapes. I will remind you of those steps later.

By the end of today's class, you should have three different shapes in your envelopes: circles, squares, and rectangles. They should all be three different colors: red, yellow, and blue.

TEACHER DO: Hand out crayons, square and rectangle handouts, scissors, and envelopes.

👥 **STUDENTS DO:** Complete the activity in the order listed above.

TEACHER DO: Walk around the classroom and make sure that all students are coloring and cutting the squares and rectangles. Monitor for understanding by asking them to identify the shape they are working on and explain how squares and rectangles are different.

TEACHER SAY: Great work today. Please make sure that all of your squares and rectangles are in your envelope. We will need them for our share today.

👥 **STUDENTS DO:** Place squares and rectangles in their envelopes.

Share (5-10 minutes)

Directions

1. TEACHER SAY: **Please take only your squares out of your envelopes.**

STUDENTS DO: Place their squares on top of their envelopes.

TEACHER SAY: **Now, work with your Shoulder Partner to find out how many squares you and your partner have all together. When you know and agree on an answer, please hold up your fingers to show me how many squares you have in all. So, if I have two squares…**

TEACHER DO: Hold up two fingers on one hand.

TEACHER SAY: **…and my Shoulder Partner has four squares…**

TEACHER DO: Hold up four fingers on the other hand.

TEACHER SAY: **…how many do my Shoulder Partner and I have all together?**

TEACHER DO: Count all fingers, tapping each one down for the number.

TEACHER SAY: **We would both hold up six fingers because we have six squares in all. Now you try.**

STUDENTS DO: Count the total number of squares and then show the number on their fingers.

TEACHER DO: Walk around and check on the students looking for the following:
- Were they able to identify the square shapes and pull them out of their envelope?
- Can they successfully work with their partners?
- Are they able to point to represent the total number on their fingers?

TEACHER SAY: **You all are doing a wonderful job making and counting your shapes.**

TEACHER DO: If time allows, repeat above using rectangles.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 36.
- Use ordinal numbers first through seventh.
- Create flat shapes with varying side length.

KEY VOCABULARY

- Circle
- Corner
- Fifth
- First
- Fourth
- Rectangle
- Second
- Seventh
- Side
- Sixth
- Square
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- **Zoo Can**
- Completed mobile
- Crayons (Three colors per student. They will use the same three throughout this project.)
- Envelopes (one per student, labeled with student's name)
- Handout with at least five triangles of varying sizes (one per student)
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- No new lesson preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math and refer to the chart from the previous lesson where the movements are written down.

TEACHER SAY: For Movement Math we are going to review our ordinal numbers and add one more. Yesterday we had six volunteers at the front of the class who helped us decide on our movements. Let's see if we can remember who was there and in what order they were. Who was our first student? Their movement was _____ (do and say movement). Raise your hand if you can remember.

STUDENTS DO: Raise their hands and say the name of the first student.

TEACHER SAY: That is right. _____ (Student's name) was our first volunteer and their movement was _____ (do and say movement). _____ (Student's name), can you please stand in the first position as you did yesterday?

STUDENTS DO: Move to the front of the classroom.

TEACHER SAY: Now, let's practice the first movement. Say it with me. First, we _____ (do and say movement).

STUDENTS DO: Do and say the movement.

TEACHER SAY: Great, now who was our second volunteer? Their movement was _____ (read the movement off the chart). Raise your hand if you can tell me the name of the second volunteer.

STUDENTS DO: Raise their hands and say the name of the second student.

TEACHER SAY: That is right. _____ (Student's name) was our second volunteer and their movement was _____ (do and say movement). _____ (Student's name), can you please stand in the second position as you did yesterday?

STUDENTS DO: Move to the front of the classroom.

TEACHER SAY: Now, let's practice the first movement. Say it with me. First, we _____ (do and say movement), and second, we _____ (do and say movement).

STUDENTS DO: Practice the movements with the teacher.

TEACHER DO: Continue until all six volunteers are standing in front of the room recreating the order from the previous class. If a student is absent, ask another student to be their substitute for the day.

TEACHER SAY: Now we have our six volunteers. Is there someone who would like to raise their hand to be the next volunteer—our seventh volunteer?

STUDENTS DO: Raise their hands to volunteer.

TEACHER SAY: Great. _____ (Student's name), you will be our seventh volunteer. Please stand after the sixth volunteer because the seventh volunteer comes after the sixth.

STUDENTS DO: Stand in proper order.

TEACHER SAY: _____ (Student's name), what movement would you like our seventh movement to be?

STUDENT DO: Volunteer suggests a movement.

TEACHER SAY: Great, our seventh movement will be _____ (do and say movement).

TEACHER DO: Write a 7 on the chart and record the movement. Then read the chart again to students beginning with the first movement and going to the seventh.

TEACHER SAY: Now, let's do them all together.

STUDENTS DO: Move through the ordinal number routine with the teacher.

TEACHER SAY: Wonderful work on ordinal numbers. Let's see if you can return to your seats in the same order. _____ (Student's name), you will be first. _____ (Student's name), you will be second.

TEACHER DO: Continue until all students are seated.

STUDENTS DO: Return to their seats in order. Seated students observe.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Who can remind us what we did in our last math class? Tell your Shoulder Partner what we worked on.

STUDENTS DO: Turn and talk to their partners.

TEACHER SAY: We are going to continue working our shape mobile project today. Can you touch your nose if you can remember what the word mobile means?

STUDENTS DO: Touch their noses if they remember the meaning of mobile. Selected student explains that a mobile is a piece of art that has something that moves.

TEACHER SAY: Today you are going to add triangles to your set of shapes. What do you remember about triangles? Turn and tell your Shoulder Partner.

STUDENTS DO: Talk to Shoulder Partners.

TEACHER SAY: When you think you know what makes a shape a triangle, touch your head.

STUDENTS DO: Touch their heads. Selected students explain that triangles have three sides and three corners.

TEACHER SAY: Great. First, I will give each of you a handout with triangles on it.

TEACHER DO: Show students the worksheets.

TEACHER SAY: Second, you will color your triangles. Make sure you use each color at least one time. Third, you will cut out your triangles. Fourth, you will put them into an envelope, and fifth, we will do some math with our new shapes. By the end of today's class, you should have four different shapes in your envelopes: circles, squares, rectangles, and triangles. They should all be three different colors: red, yellow, and blue.

TEACHER DO: Hand out crayons, triangle handouts, scissors, and envelopes.

STUDENTS DO: Complete the activity in the order listed above.

TEACHER DO: Walk around the classroom and make sure that all students are coloring and cutting the triangles. Monitor for understanding by asking them to identify the shape on which they are working and explain what makes the shape a triangle.

TEACHER SAY: Great work today. Please make sure that all of your shapes are in your envelope. We will need them for our Share today.

STUDENTS DO: Place all shapes in their envelopes.

Share (5-10 minutes)

Directions

1. TEACHER DO: Hand out math journals and have your math journal ready to model the activity.

TEACHER SAY: Please open your math journal to Lesson 66. Please take all of your red shapes out of your envelope.

STUDENTS DO: Place their red shapes in front of them.

TEACHER SAY: Draw all of your red circles in your math journal with a red crayon.

TEACHER DO: Select a student and count the number of circles they have.

TEACHER SAY: **For example, _____ (Student's name) has _____ (number) red circles. So, _____ (student's name) will draw _____ (number) red circles in the math journal, like this.**

TEACHER DO: Using a red crayon, model drawing the number of circles the student has in your math journal.

TEACHER SAY: **We are going to do this for squares, too, so be sure to draw your shapes smaller than they are in real life. Now, count your red circles and draw them in your journals.**

STUDENTS DO: Count and draw their red circles in their math journals.

TEACHER SAY: **You all are doing a wonderful job showing your math in your math journal. Now, do the same thing with squares. Count your red squares and draw that many squares in your math journals.**

STUDENTS DO: Count and draw their red squares in their math journals.

TEACHER DO: Walk around and check on the students looking for the following:
- Were they able to identify the shapes?
- Can they draw a representation of a circle and a square?

TEACHER SAY: **Now, count how many red squares and red circles you drew in your math journal all together. When you think you know how many circles and squares you have all together, show that number on your fingers.**

STUDENTS DO: Count the shapes and represent the number on their fingers.

TEACHER SAY: **Now turn to your Shoulder Partner and check that the number they are showing on their fingers matches the number of shapes they drew in their math journal.**

STUDENTS DO: Work with their partners and check their work.

TEACHER SAY: **Great work today with shapes, counting, and helping double check your partner's work. Hold up your journals to show the class your wonderful work.**

STUDENTS DO: Hold up math journals to show drawings of circles and squares.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 37.
- Use ordinal numbers first through eighth to describe the relative position of shapes.

KEY VOCABULARY

- Circle
- Eighth
- Fifth
- First
- Fourth
- Rectangle
- Second
- Seventh
- Sixth
- Square
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- **Zoo Can**
- One sheet of paper per student
- Student envelopes containing shapes for the mobile project, plus the teacher's set of shapes from the mobile project
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- No new lesson preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math and refer to the chart from the previous lesson where the movements are written down. Review the first seven ordinal numbers as performed in the previous lesson. Call all seven volunteers to the front of the room to stand in order.

TEACHER SAY: Now we have all seven volunteers from yesterday. Is there someone who would like to raise their hand to be the eighth volunteer?

STUDENTS DO: Raise their hands to volunteer.

TEACHER SAY: Great. _____ (Student's name) will be our eighth volunteer. Please stand after the seventh volunteer because the eighth volunteer comes after the seventh.

STUDENTS DO: Stand in proper order.

TEACHER SAY: _____ (Student's name), what movement would you like our eighth movement to be?

STUDENT DO: Volunteer suggests a movement.

TEACHER SAY: Great. Our eighth movement will be _____ (do and say movement).

TEACHER DO: Write an 8 on the chart and write the movement. Then read the chart again to students, beginning with the first movement and going to the eighth.

TEACHER SAY: Now let's do them all together. This time, I want you to use the words first, second, third, fourth, fifth, sixth, seventh, and eighth as you do the movements. I will help you remember.

STUDENTS DO: Move through the ordinal number routine with the teacher, using the terms first, second, third, fourth, fifth, sixth, seventh, and eighth.

TEACHER SAY: Wonderful work on ordinal numbers. Let's see if you can return to your seats in the same order. _____ (Name of first student), you will be first. _____ (Name of second student), you will be second.

TEACHER DO: Continue until all students are seated.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Ten Frame Activity. Count by ones and tens.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today we are going to use two things we have learned to play a game—our shapes and ordinal numbers. The game is called Guess My Order.

TEACHER DO: Show students your envelope of mobile shapes. Hand out students' envelopes.

TEACHER SAY: I am going to choose eight shapes from my envelope.

TEACHER DO: Count out eight shapes, naming each shape as it is pulled out. Example: I have a triangle, a circle, and another triangle.

TEACHER SAY: Now, I will take my eight shapes and arrange them in an order from first to eighth. Close your eyes as I arrange them because it is a secret.

TEACHER DO: Arrange the shapes in the following order: triangle, square, triangle, rectangle, circle, rectangle, triangle, square. Then cover them with a sheet of paper.

TEACHER SAY: Take out your shapes in your envelope. Let's see if you can put your shapes in the same order as my shapes. I'm going to give you clues about each shape and its ordinal number. See if you can match my shape order.

👥 **STUDENTS DO:** Take their shapes out of their envelopes.

TEACHER SAY: My first shape is a triangle. Can you place a triangle for your first shape?

👥 **STUDENTS DO:** Place a triangle in front of them.

TEACHER SAY: My second shape is a square. Can you place a square for your second shape?

👥 **STUDENTS DO:** Place a square beside the triangle.

TEACHER SAY: My third shape is another triangle. Can you place a triangle for your third shape?

👥 **STUDENTS DO:** Place a triangle in their third shape spot.

TEACHER DO: Repeat above steps with the fourth shape as a rectangle, fifth a circle, sixth a rectangle, seventh a triangle, and eighth a square (or any pattern, as long as all four shapes are used).

👥 **STUDENTS DO:** Recreate the same pattern in front of them.

TEACHER SAY: Great. Now let's see if your pattern matches the one I made.

TEACHER DO: Take the paper off of the arrangement and then draw the arrangement on the board.

TEACHER SAY: First, you should have a triangle.

TEACHER DO: Draw a triangle on the board.

TEACHER SAY: Second, you should have a square.

TEACHER DO: Draw a square on the board beside the triangle. Continue with the rest of the shapes.

TEACHER SAY: Did your arrangement match mine?

TEACHER DO: Hand out a sheet of paper to each student.

TEACHER SAY: Now you will play this same game with your Shoulder Partner. The partner with the shorter hair will go first. The partner with the longer hair should close their eyes and put their heads down. No peeking.

👥 **STUDENTS DO:** Partners with longer hair close eyes and put heads down.

TEACHER SAY: Partners with the shorter hair: While your partners' eyes are closed, arrange eight shapes from first to eighth in any order you like. Then, use the sheet of paper I gave you to hide your shapes so your partner cannot see them.

👥 **STUDENTS DO:** Partners with shorter hair arrange eight shapes and hide them using a sheet of paper.

TEACHER SAY: Okay, second partners, you can lift your heads and open your eyes. Listen to the clues your partner gives you. They will give you clues about the shapes and their ordinal numbers. See if you can create your partner's arrangement using the clues. Begin.

👥 **STUDENTS DO:** Partners with shorter hair explain their arrangement of shapes using ordinal numbers. Partners with longer hair try to recreate the arrangement with their shapes using the clues provided by the first partner.

TEACHER DO: Walk around and help students. Listen to see if they are using the appropriate ordinal numbers and shape vocabulary words with their partners.

TEACHER SAY: When you are finished, compare your shapes to see if you have them in the same order. If something is out of place, fix it together.

👥 **STUDENTS DO:** Compare shape arrangements and fix errors.

TEACHER SAY: Now, switch jobs. This time, the partner with the shorter hair will close their eyes and put their heads down and the partner with the longer hair will arrange their shapes. When you are finished arranging your shapes in order from first to eighth, remember to hide them so your partner cannot see them.

👥 **STUDENTS DO:** Partners with shorter hair close eyes and put heads down. Partners with longer hair arrange their eight shapes and hide them using a sheet of paper.

TEACHER SAY: When you are finished arranging your shapes, tell your partner so you can play the game.

👥 **STUDENTS DO:** Play the game, making arrangements and explaining them to their partners using ordinal numbers so that the partners are able to recreate the arrangement using their own shapes.

TEACHER DO: Walk around and help students. Listen to see if they are using the appropriate ordinal numbers and shape vocabulary words with their partners.

TEACHER SAY: Great work describing your shape arrangements using ordinal numbers today. Put all of your shapes back in your envelopes.

👥 **STUDENTS DO:** Place all shapes in their envelopes.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Please take out your math journals and open them to Lesson 67. We are going to do a quick class check to see how well you understand ordinal numbers. Please draw the shapes as I say them. First, draw a circle.

STUDENTS DO: Draw a circle in their math journals.

TEACHER SAY: Second, draw a triangle inside the circle.

STUDENTS DO: Draw a triangle inside a circle.

TEACHER SAY: Third, draw a square above the circle.

STUDENTS DO: Draw a square above the circle.

TEACHER SAY: Fourth, draw a rectangle below the circle.

STUDENTS DO: Draw a rectangle below the circle.

TEACHER SAY: Fifth, draw a triangle inside the rectangle.

STUDENTS DO: Draw a triangle inside the rectangle.

TEACHER SAY: Great job. Now, turn to your Shoulder Partner and compare your drawings. Do they look the same? If they do, give me a Thumbs Up.

STUDENTS DO: Compare their drawings and give a **Thumbs Up** if they are the same.

TEACHER SAY: Great work today with ordinal numbers and shapes.

Lesson 68 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 38.
- Use ordinal numbers first through ninth.
- Match shapes to their attributes.
- Compare lengths using the terms longer and shorter.

LESSON PREPARATION FOR THE TEACHER

- Have materials to create one teacher mobile (to model assembly process). (See Chapter Preparation for Teacher for instructions.)

KEY VOCABULARY

- Circle
- Eighth
- Fifth
- First
- Fourth
- Longer
- Longest
- Ninth
- Rectangle
- Second
- Seventh
- Shorter
- Shortest
- Sixth
- Square
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- Completed mobile
- Envelopes of completed shapes (one per student, labeled with student's name)
- Six pieces of string per student, plus a set for the teacher varying lengths between 15 and 30 cm long
- Stapler, tape, or hold punch for attaching the string to the shapes and paper plate

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math and refer to the chart from the previous lesson where the movements are written down. Review the first eight ordinal numbers as performed in the previous lesson. Call all eight volunteers to the front of the room to stand in order.

TEACHER SAY: Now, we have all eight volunteers from yesterday. Is there someone who would like to raise their hand to be the ninth volunteer?

STUDENTS DO: Raise their hands to volunteer.

TEACHER SAY: Great. _____ (Student's name), you will be our ninth volunteer. Please stand after the eighth volunteer because the ninth volunteer comes after the eighth.

STUDENTS DO: Stand in proper order.

TEACHER SAY: _____ (Student's name), what movement would you like our ninth movement to be?

STUDENT DO: Volunteer suggests a movement.

TEACHER SAY: Great. Our ninth movement will be _____ (do and say movement).

TEACHER DO: Write a 9 on the chart and write the movement. Then read the chart again to the students, beginning with the first movement and going to the ninth.

TEACHER SAY: Now, let's do them all together.

STUDENTS DO: Move through the ordinal number routine with the teacher.

TEACHER SAY: Great work on ordinal numbers. Let's see if you can return to your seats in the same order. _____ (First student's name), you will be first. _____ (Second student's name), you will be second.

TEACHER DO: Continue until all students are seated.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today we are going to continue working on our shape mobiles. Before we get started, let's play a quick game with our shapes.

TEACHER DO: Hand out students' shape envelopes.

TEACHER SAY: I am going to give you directions. Listen to all of the directions, but do not start following them until I say go. First, take a circle out of your envelope and put it in front of you. Go.

STUDENTS DO: Take a circle out of their envelope.

TEACHER SAY: Second, clap two times. Go.

STUDENTS DO: Clap two times.

TEACHER DO: Continue this with the following instructions:

TEACHER SAY:
- Third, take a rectangle out of your envelope and put it beside the circle. Go.
- Fourth, stomp your feet three times. Go.
- Fifth, take a square out of your envelope and put it next to the rectangle. Go.
- Sixth, pat your head four times. Go.
- Seventh, take a triangle out of your envelope and put it next to the square. Go.
- Eighth, slap your knees six times. Go.
- Ninth, stand up and sit back down. Go.

STUDENTS DO: Follow all of the directions and end up with a circle, rectangle, square, and triangle in front of them.

TEACHER SAY: Great job. Now, I am going to describe a shape. I'd like you to look at the shapes in front of you. When you know which shape I am describing, give a **Thumbs Up**. This is a silent search game. Keep your voice off so that everyone can do their own thinking. This shape has three sides. Give a **Thumbs Up** when you know.

STUDENTS DO: Give a **Thumbs Up** when they know the shape.

*Note to the Teacher: This is a way to informally assess the students. Make sure that enough **Wait Time** is given so that they all have time to think about which shape is being described.*

TEACHER SAY: Pick up the shape that has three sides and quietly hold it in the air.

STUDENTS DO: Pick up and show their triangles.

TEACHER SAY: What is that shape called? **Whisper** your answer aloud.

STUDENTS DO: Whisper, "Triangle."

TEACHER SAY: Wonderful. Now, please put your triangles back in front of you.

STUDENTS DO: Put triangles back down.

TEACHER SAY: Your next mystery shape has no corners. Please give a Thumbs Up when you know.

STUDENTS DO: Give a **Thumbs Up** when they know the shape.

TEACHER SAY: Pick up the shape that has no corners and quietly hold it in the air.

STUDENTS DO: Pick up and show their circles.

TEACHER SAY: What is that shape called?

STUDENTS DO: Respond together: Circle.

TEACHER DO: Continue playing this game with the rest of the shapes, using clues such as the following:
- This shape has four sides that are all the same length (square).
- This shape has four corners and four sides (both square and rectangle).
- This shape has three corners (triangle).

TEACHER SAY: Wonderful work showing all you know about shapes.

2. TEACHER DO: Pick up six pieces of string of varying lengths.

TEACHER SAY: Today, we are going to attach string to our shapes. You will each get six pieces of string.

TEACHER DO: Choose two pieces of string and hold them so that students can see they are not the same length.

TEACHER SAY: Your strings will be different lengths so that when the shapes hang down, your mobile will look more interesting and the shapes will be able to move. Which one of my pieces of string is shorter?

TEACHER DO: Hold out the strings so the students can compare them.

TEACHER SAY: Can you all point to the string that is shorter?

STUDENTS DO: Point to the shorter string.

TEACHER DO: Set the shorter string down somewhere where the students can see it.

TEACHER SAY: Now, I am going to compare the rest of my string. I want to try and sort them so that the string lengths go from shortest to longest. Can you help me do that?

TEACHER DO: Lay the rest of the strings beside the first one in random order (or tape them to the chalkboard so all students can see them), making sure that they all match along the bottom or top in order to compare.

TEACHER SAY: Remember to line them up so they all start at the same place. We talked about that before when we studied length. Can I have a volunteer who thinks they can come to the front of the room and arrange the strings from shortest to longest?

STUDENTS DO: Raise their hands. Selected student arranges the strings from shortest to longest.

TEACHER SAY: Wonderful. Your first job will be to arrange your own strings form shortest to longest.

TEACHER DO: Hand out string (six lengths) to students. If students are gluing or taping, hand out glue/tape.

STUDENTS DO: Arrange their strings from shortest to longest.

TEACHER DO: Walk around and see if they are able to do this and what strategies they use to compare string lengths.

TEACHER SAY: Great. Now I will take this string and attach it to one of my shapes using _____ (tape/glue/a hole punch). I will pick my favorite circle and attach the string to the circle.

TEACHER DO: Model how to attach the string to the shape.

TEACHER SAY: You have six shapes to attach in all: one circle, one square, one rectangle, one square, and two of your choosing. Make sure you look at all of your shapes and choose your favorites. You have to attach at least one of each shape.

Note for the Teacher: If you are using a hole punch, give the directions below. Otherwise, direct students to begin attaching their strings to their shapes.

TEACHER SAY: I am going to walk around and punch a hole in your shapes so you can attach the strings. While you are waiting for me, pick out the shapes you want to use and put them with the string you want to use.

STUDENTS DO: Attach strings to their shapes.

TEACHER SAY: When you are done, carefully put your shapes back into your envelopes.

STUDENTS DO: Put the shapes back into their envelopes.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Nice job today. Can you please turn and tell your Shoulder Partner something we worked on in today's class?

STUDENTS DO: Turn and talk to their partners.

TEACHER DO: If time allows, ask a few students to share their thinking with the class.

STUDENTS DO: Selected students share their thinking with the class. All students listen attentively.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 39.
- Use ordinal numbers first through tenth.
- Create pictures by combining and arranging shapes.

KEY VOCABULARY

- Circle
- Eighth
- Fifth
- First
- Fourth
- Ninth
- Rectangle
- Second
- Seventh
- Sixth
- Square
- Tenth
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- Envelopes of completed shapes, attached to strings (one per student, labeled with student's name)
- Crayons
- Paper plates
- Six large pairs of shape cards
- Students' and teacher's mobiles
- Glue (optional)
- Tape (optional)
- Hole punch (optional)

LESSON PREPARATION FOR THE TEACHER

- No new lesson preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Prepare for Movement Math and refer to the chart from the previous lesson where the movements are written down. Review the first nine ordinal numbers as performed in the previous lesson. Call all nine volunteers to the front of the room to stand in order.

TEACHER SAY: We have nine volunteers from yesterday. Is there someone who would like to raise their hand to be the tenth volunteer?

STUDENTS DO: Raise their hands to volunteer.

TEACHER SAY: Great. _____ (Student's name), you will be our tenth volunteer. Please stand after the ninth volunteer because the tenth volunteer comes after the ninth.

STUDENTS DO: Stand in proper order.

TEACHER SAY: _____ (Student's name), what movement would you like our tenth movement to be?

STUDENT DO: Volunteer suggests a movement.

TEACHER SAY: Great. Our tenth movement will be _____ (do and say movement).

TEACHER DO: Write a 10 on the chart and write the movement. Then read the chart again to the students, beginning with the first movement and going through the tenth.

TEACHER SAY: Now, let's do them all together.

STUDENTS DO: Move through the ordinal number routine with the teacher.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed. Ask students to note what will happen to the ten frame in the next lesson.

👥 **STUDENTS DO:** Participate in Ten Frame Activity. Count by ones and tens. Note that the ten frame will be full after the next lesson.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: We are going to continue to working on our shape mobiles today. You have been working so hard on this project and some of you may be able to finish them today. First, I am going to hand out your envelopes with all of your shapes in them. Please help me count as I hand them out.

👥 **STUDENTS DO:** Help the teacher count as they hand out the envelopes.

TEACHER SAY: Inside your envelopes you have six shapes with strings to attach to your mobile. You also have lots of leftover shapes. Please pull out two squares that do not have strings attached.

👥 **STUDENTS DO:** Pull out two squares.

TEACHER SAY: Take your two squares and arrange them to make a rectangle.

👥 **STUDENTS DO:** Put their squares side by side or one on top of the other to make a rectangle.

TEACHER SAY: Turn to your Shoulder Partner and see if you both created a rectangle.

👥 **STUDENTS DO:** Turn and talk to their partners and compare their rectangles.

TEACHER SAY: How did you make a rectangle? Raise your hand to share how you used two squares to make a rectangle.

👤 **STUDENTS DO:** Raise their hands. Selected student explains how they made a rectangle using their two squares.

TEACHER DO: Draw the rectangle described on the board.

TEACHER SAY: Did anyone make their rectangle differently? Raise your hand if you did.

👥 **STUDENTS DO:** Raise hands if they made a different rectangle. Selected student explains how they made a rectangle differently.

TEACHER DO: Draw the rectangle described on the board. Make sure to include a horizontal and a vertical rectangle.

*Note to the Teacher: Complete as many steps as possible today. If students are unable to finish, there will be time allotted in **Lesson 70** to complete the project.*

2. TEACHER SAY: Great job creating larger shapes with smaller ones. Now, let's work on our mobiles. I will give each of you a paper plate. We are going to decorate the front of the paper plate with shape drawings. Let me show you what I mean.

TEACHER DO: Show students the shape drawing you made on the completed mobile. Point to the shapes and explain how you used them.

TEACHER SAY: Draw your picture on the front of the plate as I did. The front is the part that holds food. Take your time and do your best work. Be sure to use all four shapes in your drawing. Draw your picture in pencil first, and then color the shapes in using your crayons. You will have about 15 minutes.
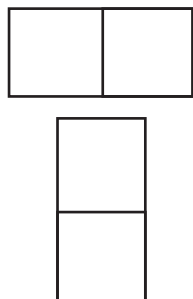
TEACHER DO: Hand out paper plates, crayons, and glue.

STUDENTS DO: Draw scenes on the plate using shapes.

TEACHER DO: Walk around and see if students are able to come up with drawings using shapes. If they are struggling, draw more examples on the board.

TEACHER SAY: Wonderful shape drawings today. Can everyone hold up their plates so we can see the work that was done?

STUDENTS DO: Hold up their plates.

TEACHER SAY: Now we will glue our extra shapes—the ones that do NOT have string attached to them—to the back of the plate. It is fine if they overlap.

TEACHER DO: Show students the back of the paper plate on your completed mobile. **Model** how to glue shapes onto the back of the plate.

STUDENTS DO: Glue their extra shapes onto the backs of their plates.

TEACHER DO: While students are working on gluing their shapes onto the back of the plates, walk around and help them attach the shapes on the strings to the front of the plate. This can be done with staples, tape, glue, or by punching holes in the plate and tying them on.

Share (5-10 minutes)

Directions

Note to the Teacher: Complete this Share if all students have finished creating their mobiles. If they have not finished, ask students to share what they have learned about ordinal numbers and why it might important to understand first, second, third, and so on.

1. TEACHER SAY: All of you have worked so hard on your shape mobiles and they look wonderful. Can you hold them up so everyone can see your hard work? Now, describe your plate to your Shoulder Partner. Tell them how many shapes you have hanging on your mobile.

STUDENTS DO: Count their total number of shapes and tell that number to their partners.

TEACHER DO: Continue to ask them questions about their mobile that they can answer with their partners. Examples include:
- How many red shapes?
- How many yellow shapes?
- How many blue shapes?
- What is the total number of triangles and squares?
- What is the total number of rectangles and circles?

STUDENTS DO: Count the shapes on their mobiles to answer the teacher's questions.

*Note to the Teacher: This share is an important part of the finishing of this project. If you are unable to complete the Share segment today, be sure to do it in **Lesson 70**. Use the mobiles as a way to assess their understanding of shapes and solving addition problems using manipulatives.*

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens up to 40.
- Count on from a given number to 20.
- Use ordinal numbers first through tenth.
- Identify matching shapes.

KEY VOCABULARY

- Circle
- Eighth
- Fifth
- First
- Fourth
- Ninth
- Rectangle
- Second
- Seventh
- Sixth
- Square
- Tenth
- Third
- Triangle

MATERIALS

- Calendar Math Area
- Four ten frames (from previous lesson)
- Six large pairs of shape cards
- Students' and teacher's mobiles
- Glue (optional)
- Tape (optional)
- Hole punch (optional)

LESSON PREPARATION FOR THE TEACHER

- In this lesson, students will play a culminating game to celebrate their understanding of shapes and ordinal numbers. If students did not finish their mobiles in **Lesson 69**, use today's Learn segment to complete the project. Then, use the Share segment from **Lesson 69** to check students' understanding about shapes.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER SAY: Today we are going to pull an animal from our Zoo Can and practice counting to 20, but we are going to start at the number 5. We will pretend to have already said 1, 2, 3, 4. Those numbers will stay in our heads, and we will start with 5.

TEACHER DO: Pull an animal stick from the **Zoo Can**.

STUDENTS DO: Count to 20 while pretending to be that animal starting at 5.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed. Students should note that the ten frame is full. They will need to add a new ten frame in **Lesson 71**. Students are also counting to 40 this time, and may need additional support.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 40. Note that a new ten frame will be needed in **Lesson 71**.

Learn (25-30 minutes)

Directions

Note to the Teacher: If students have not completed their mobiles, use this time to finish the project instead of playing Shape Memory.

1. TEACHER SAY: You have learned so much about ordinal numbers and shapes. Today we are going to celebrate learning our ordinal numbers and shapes by playing a game called Shape Memory. I have 12 cards with six different shapes on them.

TEACHER DO: Show the students all of the cards ask them to name the shapes as you display them. Pull out two of the triangle cards that do not match.

TEACHER SAY: Both of these cards are triangles. Although they are the same shape, do they look exactly the same? Tell your Shoulder Partner what you think.

STUDENTS DO: Talk to their partners.

TEACHER SAY: Raise your hand if you can tell me how they are the same and how they are different.

STUDENTS DO: Raise their hands. Selected students share their thinking.

TEACHER DO: Repeat this activity with the three rectangles.

Note to the Teacher: Students may classify the square as a rectangle or may still see it as a square and as an entirely different shape, not a type of rectangle. As this is just an introduction to shapes, it is not necessary for them to understand that a square is a type of rectangle. Shape Memory game can be made easier if you only include three or four pairs of matching shapes. Adjust the number of students you call to the front, the cards you hand out, and the prompts that follow in this guide to match your game.

TEACHER SAY: Wonderful thinking. Now that we know all of our shapes, I am going to mix them up. I will need 12 volunteers to stand at the front of the class. You will hold your card with the shape facing your chest so that we cannot see what it is. Please raise your hand if you would like to volunteer.

STUDENTS DO: Raise their hands.

TEACHER DO: Call on 12 students, saying their ordinal number as they move to the front of the room. Give each student a shape card, reminding them not to show the class their card.

TEACHER SAY: Your job is to use your math skills, listening skills, and memory skills to make a match. On your turn, you will get to choose two volunteers to show their cards, but you have to say their ordinal number. For example, I might say, "I would like the third card and the fifth card, please."

TEACHER DO: Gesture to the third and fifth students.

TEACHER SAY: Then the third student and the fifth student will show their cards. If the cards match, those students will sit down. If they do not match, they will hide their cards again. Now it is your turn to play. I will use Calling Sticks to pick the first student to try to guess. If I pull a Calling Stick for one of our volunteers, I will pull another stick.

TEACHER DO: Use **Calling Sticks** to select students to play the game. Continue to play the game until all the cards have matches. If time allows, mix up the cards and choose new students to play additional rounds.

Share (5-10 minutes)

Directions

*Note to the Teacher: If students completed their mobiles today, use the Share segment from **Lesson 69**.*

1. TEACHER SAY: All of you have worked so hard this week with ordinal numbers and shapes. Let's see if we can count from first to tenth together.

Note to the Teacher: Students may not be able to recite all of their ordinal numbers at this point, but they should be able to use first, second, and third.

STUDENTS DO: Count aloud with the teacher using ordinal numbers first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, and tenth.

TEACHER SAY: Why is it important that we know ordinal numbers? Raise your hand if you have some ideas.

STUDENTS DO: Raise hands to volunteer. Selected students share their thinking. All students listen attentively.

KINDERGARTEN II

Mathematics

Chapter 2

Lessons 71–80

Lessons 71–80

COMPONENT	DESCRIPTION	TIME
Calendar and Movement	During this daily routine, students develop number sense, calendar sense, early place value concepts, counting fluency, and problem-solving skills. Students explore quantity and practice counting through patterns and movement.	15-20 minutes
Learn	During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction, and practice.	25-30 minutes
Share	During this daily routine, students develop their ability to express mathematical ideas by talking about their discoveries, using math vocabulary, asking questions to make sense of learning tasks, clarifying misconceptions, and learning to see things from other students' perspectives.	5-10 minutes

Learning Indicators

Throughout this chapter, students will work toward the following learning indicators:

COUNTING AND CARDINALITY
- Identify the number of objects in familiar groupings without counting (e.g., number of dots on a side of dice, numbers on playing cards).
- Use ordinal numbers (e.g., first, second, third) to describe objects up to tenth.

OPERATIONS AND ALGEBRAIC THINKING
- Represent addition and subtraction with objects; fingers; mental images; drawings; sounds; acting out situations; or verbal explanations, expressions, or equations.
- Add or subtract within 20 using strategies such as
  - Using objects or drawings to represent a problem.
  - Decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1).
  - Finding the number that makes 10 when added to any number 1-9.
- Fluently add and subtract within 10.

MEASUREMENT
- Compose and decompose 10 using objects, drawings, and so on.

GEOMETRY:
- Describes objects in the environment using names and shapes.
- Correctly use terms such as above, below, beside, in front of, behind, and next to.
- Correctly name two-dimensional shapes (circle, triangle, square, rectangle).
- Compose larger shapes by combing simple shapes.
- Identify shapes as either flat or solid (building to understanding of two-dimensional and three-dimensional shapes).

LESSON	INSTRUCTIONAL FOCUS
71	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 41. • Count down from 20 to 1. • Find and describe solid shapes: sphere and cylinder.
72	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 42. • Skip count by twos from 2 to 20. • Find and describe solid shapes: cube and cone.
73	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 43. • Skip count by twos from 2 to 20. • Decompose three-dimensional shapes to identify the flat shapes that make them.
74	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 44. • Identify missing numbers in a sequence up to 20. • Apply strategies to add within 10. • Apply strategies to subtract within 10.
75	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 45. • Identify missing numbers in a sequence up to 30. • Apply strategies to subtract within 10.
76	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 46. • Count up from a given number up to 10. • Find the number that makes 10 when added to any number 1 through 9. • Apply strategies to add within 10.
77	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 47. • Count up from a given number up to 10. • Find the number that makes 10 when added to any number 1 through 9. • Apply strategies to add within 10.

LESSON	INSTRUCTIONAL FOCUS

78

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 48.
- Find the number that makes 10 when added to any number 1 through 9.
- Apply strategies to add within 10.

79

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 49.
- Add and subtract on a number line to find a mystery number.
- Apply strategies to add within 10.

80

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 50.
- Add and subtract on a number line to find a mystery number.
- Apply strategies to subtract within 10.

Chapter Preparation

Note to the Teacher: The following items will be used daily in some form throughout this chapter. Careful preparation of the items in advance is necessary for successful implementation of daily lessons.

- Create a poster titled "Three-Dimensional Shapes," with labeled drawings of a sphere, cone, cylinder, and cube. Hang the poster where students can refer to it.

- For **Lessons 71 and 72**: Gather a collection of three-dimensional shapes—sphere, cone, cylinder, and cube—with 3-5 of each type. Ideally, these shapes are real objects such as a can, ball, globe, ice cream cone, party hat, box, and/or die. Some shapes can be created from the nets provided in the Three-Dimensional Shape Nets Blackline Master.

- For **Lesson 73**: Gather a collection of three-dimensional shapes that can be taken apart, such as cereal boxes, cube tissue boxes, rectangular tissue boxes, toilet paper or paper towel rolls, and conical party hats. Consider asking parents to bring these objects into the classroom. The same objects and nets from **Lessons 71 and 72** can be used too, as long as they can be easily broken apart by students.

- For **Lesson 74**: Gather or make seven cone-shaped party hats. These can be made of rolled up paper.

- For **Lesson 76**: Make a set of objects numbered from 0 to 10. Objects can be rocks, cards, or sticks and will live in the **Ten Can**.

- For **Lesson 76**:
  - Create number lines from 0 to 10 for each student. The number lines can be photocopied for students, permanently placed on their desks, or taped in the front cover of their math journals. Having them glued into their math journals makes them easily accessible. (See the Number Lines 0-10 Blackline Master.)
  - Create a set of ten frame cards numbered 0 to 10, with a total 44 per set. (See Ten Frame Cards Blackline Masters.) One set per student is ideal, but they can also play with partners, small groups, or the whole class. If a printer is not available, these cards can be reproduced by hand.

- For **Lessons 79 and 80**: Photocopy or create Math is Fun Game Card. (See Math is Fun Game Card Blackline Master.) Students can either work independently, in partners, or in small groups.

Teaching Strategies Used

See pages 3-5 of this guide for detailed instructions.

- **Shoulder Partner**
- **Hands Up, Pair Up**
- **Calling Sticks**
- **Venn Diagram**
- **Wait Time**
- **Whisper/Whisper Hands**
- **Zoo Can**
- **Role Play**
- **Thumbs Up**
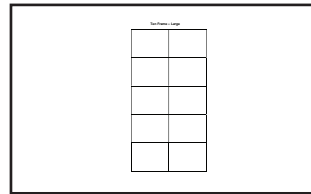- **Turn and Talk**
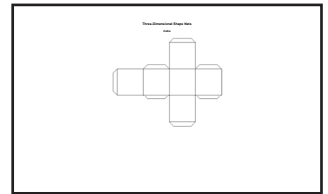
Materials Used

Calendar math area

Sets of spheres, cylinders, cubes, and cones

Ten frames

Three-dimensional shape nets blackline master (optional)

Collection of multi-part objects that can be taken apart and examined

Markers, colored pencils, or crayons

Chart paper

Cone-shaped party hats

Ten Can

Sets of ten frame cards
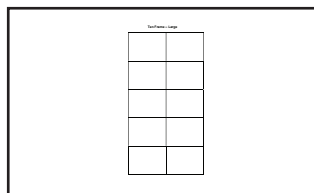
Envelopes

Sets of counters

Number lines, 0 to 10
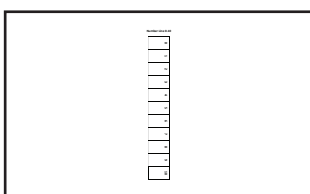
0 to 10 game card

Lesson 71 Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 41.
- Count down from 20 to 1.
- Find and describe solid shapes: sphere and cylinder.

KEY VOCABULARY
- Circle
- Countdown
- Cylinder
- Flat
- Solid
- Sphere

MATERIALS
- Calendar Math Area
- Four ten frames (from previous lesson)
- Ten frame
- Set of spheres and cylinders (3-5 of each type)
- Optional: Three-Dimensional Shape Nets Blackline Master

LESSON PREPARATION FOR THE TEACHER

- Spheres and cylinders (three-dimensional solid shapes) should be hidden around the room. Students will try to find them during today's lesson. The shapes should be visible from students' desks. (See Term and Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER SAY: Today we are going to pull an animal from our **Zoo Can** and practice counting to 20, but we are going to count backward. We will start with 20 and count backward to 0. I will touch each number on our hundreds chart as we count. This is a big challenge and I think you are ready for it.

TEACHER DO: Pull an animal stick from the **Zoo Can**.

TEACHER SAY: Ready? We will all act like a _____ (animal's name) and count down starting at 20: 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.

👥 **STUDENTS DO:** Count down from 20 while pretending to be that animal.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed. A new ten frame will begin today.

👥 **STUDENTS DO:** Participate in Ten Frame Activity. Count by ones and tens to 41.

4. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today for Movement Math we are going to play a game called Shape Stop. For this game we will use **Hands Up, Pair Up**. You will stand up and walk around the room quietly with one hand raised in the air. Then I will say, "Stop. Pair up." You will find a nearby student and clap hands together. They will be your partner. Then I will say the name of a shape. You and your partner need to work together to create the shape with your bodies.

Note to the Teacher: Before modeling the ways students could make shapes with their bodies, let them try and see if they can create them themselves. If this proves challenging, stop the game and have a pair of students model how they can create the shapes. Some examples of this might be two students holding hands to form a circle or putting their arms together over their heads and holding hands like a triangle.

TEACHER DO: Play several rounds of this game, calling out square, triangle, rectangle, and circle.

TEACHER SAY: Wonderful work with Shape Stop. Please go back to your seats.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

STUDENTS DO: Raise their hands and share with the class their learning from the previous lesson.

2. TEACHER SAY: Today we are going to learn about solid shapes. When we learned about rectangles, squares, triangles, and circles, they were all flat shapes. Solid shapes are different.

TEACHER DO: Draw a circle on the board.

TEACHER SAY: Watch as I pretend to peel this circle off the board and squish it in between my hands.

TEACHER DO: Pretend to pull the circle shape off the board and squish it in between your hands with palms together.

TEACHER SAY: If I want to make my flat circle into a solid shape, I have to blow up the circle.

TEACHER DO: Hold your hands up to your mouth as if to blow air into the circle, (adding the dimension of filling up space) and curl fingers as air is blown, forming a sphere with your hands.

TEACHER SAY: The flat circle has now become a solid sphere like a ball. A solid shape is a shape you can hold in your hand and see how long, wide, and tall it is. Now it is your turn to try and turn a flat shape into a solid shape. Can you hold up your finger like a magic wand?

TEACHER DO: Hold up index finger.

STUDENTS DO: Hold up their index fingers.

TEACHER SAY: Wonderful, now draw a circle on the floor (or on your desk) in front of you.

STUDENTS DO: Draw circles on the floor.

TEACHER SAY: Now pretend to carefully peel the circle off the floor and squish it in your hands.

STUDENTS DO: Pretend to peel circles off the floor.

TEACHER SAY: Now hold your circle up to your lips and blow air into it until you pretend to make it into a solid shape, like a ball.

TEACHER DO: Model this movement until it appears you are holding an imaginary ball.

STUDENTS DO: Blow air into their hands and grow their hands until they have formed a pretend sphere.

TEACHER SAY: Perfect. Now we all have spheres in our hands. Say, "Sphere."

STUDENTS DO: Say: Sphere.

TEACHER SAY: Let's pretend they are balls and bounce them.

TEACHER DO: Pretend to bounce ball.

STUDENTS DO: Pretend to bounce their balls.

TEACHER SAY: Excellent job bouncing your spheres. Now put them back into your hands and squish them back into a flat circle.

STUDENTS DO: Pretend to squish their balls back into circles.

3. TEACHER SAY: Now we are going to be (said in a Whisper) secret-solid-shape finders. We have, hiding in our classroom, some spheres just like the ones you made with your hands. We have to be very quiet, so we do not scare them away. Can you turn your hands into your special solid-shape-finding glasses? Watch as I form my fingers into circles and then hold them up to my eyes.

TEACHER DO: Make hands into glasses by bringing the fingers to the thumbs and then holding them up to your eyes.

TEACHER SAY: Now, can you quietly put on your special solid-shape-finding glasses and look around the room for hidden spheres? When you see one, look closely for another. These spheres like to visit with their other sphere friends. Then, when you have found at least two spheres, please take off your glasses and give me a silent Thumbs Up. Remember, we will stay seated and silent during this activity.

STUDENTS DO: Pretend to put on their glasses and look around the room for the hidden spheres.

TEACHER DO: Give students time to find at least two different hidden spheres and wait until they have their **Thumbs Up** to move on.

TEACHER SAY: If you found a sphere with your special solid-shape-finding glasses, please touch your nose.

STUDENTS DO: Touch their noses.

TEACHER SAY: I am going to call on a silent student who is touching their nose to pick one of the spheres they saw and bring it to the front of the classroom.

TEACHER DO: Call on a student.

STUDENTS DO: Bring a sphere to the front of the classroom.

TEACHER DO: Repeat the process above until all of the spheres are at the front of the classroom.

4. TEACHER SAY: Wonderful job finding spheres. Now, we can do something else to that flat circle.

TEACHER DO: Draw another circle on the board.

TEACHER SAY: We blew it up into a sphere, but we can also (emphasize the word) S-T-R-E-T-C-H it out into a cylinder. Just like last time, I am going to pretend to peel the flat circle off the board and put it in the palm of my hand.

TEACHER DO: Pretend to pull the circle off the board and put it in your hand.

TEACHER SAY: It is just a flat shape. It wants to be a solid, so I am going to stretch it out.

TEACHER DO: Hold one hand flat palm side up. Take other hand and form fingers into a half-circle shape. Keeping fingers in this shape, put them on palm of hand and pretend to pull the circle up to make a cylinder. Then mimic the top hand's shape with the bottom hand to create a cylinder, as if holding a can.

TEACHER SAY: A cylinder is a solid shape like a can. Say, "Cylinder."

STUDENTS DO: Say: Cylinder.

TEACHER DO: Hold up an example of an actual cylinder.

TEACHER SAY: Let's see if you can make cylinder shapes with your hands.

TEACHER DO: Walk through the steps above, having them first draw a pretend circle on the floor or desk and peel it off and put it in their hands to form the base.

STUDENTS DO: Make cylinders with their hands.

TEACHER SAY: Now, we will put our special solid-shape-finding glasses back on and see if we can find any cylinders hiding in this room. Remember to be silent so you do not scare the cylinders. They also like to visit our classroom with friends, so when you have found one, look and see if you can find another. Give me a silent Thumbs Up when you have found at least two.

STUDENTS DO: Look for cylinders in the room and put silent **Thumbs Up** in their laps when they have found at least two.

TEACHER DO: Repeat activity as done above with sphere:
- Students touch their noses.
- Call on a student.
- Student quietly brings cylinder to the front of the classroom.
- Activity continues until all cylinders are found and at the front of the room.

TEACHER SAY: Wonderful job finding spheres and cylinders around the room today.

Share (5-10 minutes)

Directions

1. TEACHER SAY: We have certainly learned a lot during our math time today. We took a flat circle and turned it into two solid shapes. Can you all put your hands together and then blow them up into a sphere like we did first?

STUDENTS DO: Make their hands into spheres.

TEACHER SAY: Wonderful, now turn and Whisper to your Shoulder Partner something you know that is in a shape of a sphere.

TEACHER DO: Allow students time to share.

STUDENTS DO: Share with their **Shoulder Partner**.

TEACHER SAY: Wonderful, now can you make the shape of a cylinder with your hands?

STUDENTS DO: Make their hands into cylinders.

TEACHER SAY: Wonderful, now turn and Whisper to your Shoulder Partner something you know that is in a shape of a cylinder.

TEACHER DO: Allow students time to share.

STUDENTS DO: Share with their **Shoulder Partner**.

TEACHER SAY: Wonderful job today. You all have learned so many new things about solid shapes. Remember to keep your solid-shape-finding glasses ready throughout today and when you get home to be on the lookout for all of the spheres and cylinders in our world.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Skip count by twos from 2 to 20.
- Find and describe solid shapes: cube and cone.
- Count by ones and tens to 42.

KEY VOCABULARY

- Cone
- Cube
- Cylinder
- Skip count
- Sphere

MATERIALS

- Calendar Math Area
- Five ten frames (from previous lesson)
- Sets of three-dimensional (solid) objects: cubes and cones (3-5 of each type). Shapes can be created from the nets provided but must also include real-life objects such as dice, boxes, ice cream cones, and/or party hats.
- Optional: Three-Dimensional Shape Nets Blackline Master
- Solid shapes from previous day's class lined up in the front of the room

LESSON PREPARATION FOR THE TEACHER

- Cubes and cones (three-dimensional solid shapes) should be hidden around the room. Students will try to find them during today's lesson. The shapes should be visible from students' desks.
- See Term and Chapter Preparation for additional instructions.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER SAY: Today we are going to practice something new called skip counting. When we skip count, we skip some numbers. You already know how to skip count by tens. When we skip count by tens, we are skipping numbers, right? Today we are going to try to skip count by twos to the number 20. Watch as point to the numbers I say on the hundreds chart. Try to see the pattern.

TEACHER DO: Point to the hundreds chart starting on the number 2. Count by twos to 20.

TEACHER SAY: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20. Did anyone notice a pattern? If you noticed a pattern, touch your nose.

STUDENTS DO: Touch their noses.

TEACHER SAY: What was the pattern? I will call on someone with their finger on their nose.

TEACHER DO: Call on a student to share that the pattern is to skip one number and then say the next.

Note to the Teacher: If students cannot see the pattern, take the time to make sure they fully understand what is being done when skip counting by twos. They could even cover up or remove the numbers that are not counted in order to better see the pattern.

TEACHER SAY: Now it is your turn to try skip counting by twos to 20. I will point to each number as we say them together.

STUDENTS DO: Count by twos with the teacher from 2 to 20.

TEACHER SAY: Good job. We will practice that together again soon.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Ten Frame Activity. Count by ones and tens to 42.

4. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today we will play Shape Stop again. Remember, for this game we use Hands Up, Pair Up. You stand up and walk around the room quietly with one hand raised in the air. Then I say, "Stop. Pair up." You find a nearby student and clap hands together. They will be your partner. When I say the name of a shape, you and your partner work together to create that shape with your bodies.

TEACHER DO: Play several rounds of this game, calling out square, triangle, rectangle, and circle.

TEACHER SAY: Great work with Shape Stop. Please go back to your seats.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

👥 **STUDENTS DO:** Raise their hands and share with the class their learning from the previous lesson.

TEACHER DO: If the terms cylinder and sphere are not brought up, review them as a class.

2. TEACHER SAY: Today we are going to learn about two new solid shapes. Remember flat shapes are those like a triangle, square, rectangle, or circle. Solid shapes are shapes you can hold in your hand and see how long, wide, and tall it is, like a can or a ball. Do you remember how in our last class we made our hands look like we were holding a sphere, like a ball? Can you all try to do that right now?

👥 **STUDENTS DO:** Shape their hands like they are holding a ball.

TEACHER SAY: Great job. Now can you do the same thing, but move your hands to look make a cylinder, like a can? Can you try that?

👥 **STUDENTS DO:** Shape their hands like a cylinder.

TEACHER SAY: Today we are going to take a flat square and turn it into a solid cube. First, I am going to draw a flat square on the board.

TEACHER DO: Draw a square on the board.

TEACHER SAY: Just like before, I am going to pretend to peel this square off the board and put it in the palm of my hand.

TEACHER DO: Pretend to peel the square off the board and lay it in your palm.

TEACHER SAY: Now, I am going to squish my square with my other hand and then blow air into it and make it grow into a solid shape.

TEACHER DO: Put one hand on top of the other hand. Blow air into the base where the wrists meet while slowly moving hands apart as if to make a cube with your hands. Then pantomime the top and bottom of the cube with your hands.

TEACHER SAY: When I take a flat shape like a square and make it solid, I turn it into a cube.

TEACHER DO: Hold up a die, box cube, or cube net.

TEACHER SAY: This _____ (object held) is an example of a cube. Now you will make a solid cube with your hands. First, hold up your index finger like a magic wand.

TEACHER DO: Model holding up index finger.

TEACHER SAY: Now, draw a pretend square on the floor.

👥 **STUDENTS DO:** Pretend to draw squares on the floor with their index fingers.

TEACHER SAY: Peel the square off the floor and place it in the palm of your hand.

👥 **STUDENTS DO:** Pretend to peel the squares off the floor and place them in their palms.

TEACHER SAY: Now, squish the shape to make it very flat with your other palm.

👥 **STUDENTS DO:** Pretend to squish the shapes.

TEACHER SAY: Now we are going to make the flat shape a solid shape by blowing air into it. Watch and follow along as I turn my flat square into a cube.

👥 **STUDENTS DO:** Follow along with the teacher, blowing air into the base of their wrists and moving hands away from each other to pantomime creating a cube.

TEACHER SAY: Wonderful. Now we all have solid cubes in our hands. Say, "Cube."

👥 **STUDENTS DO:** Say: Cube.

TEACHER SAY: Good, let's squish them back into flat squares.

TEACHER DO: Pantomime squishing the cube back into a square.

👥 **STUDENTS DO:** Squish their cubes back into squares.

3. TEACHER SAY: Now, let's put our special solid-shape-finding glasses back on and see if we can find any cubes hiding in this room. Remember to be silent so you do not scare the cubes. They also like to visit our classroom with friends, so when you have found one, look and see if you can find another. Give me a silent Thumbs Up when you have found at least two. Remember, stay in your seats and look quietly.

👥 **STUDENTS DO:** Look for cubes in the room and put silent **Thumbs Up** in their laps when they have found at least two.

TEACHER DO: Repeat activity as done in **Lesson 71**:
- Ask students to touch their noses to share the location of a cube.
- Call on a student.
- Student quietly brings solid shape to the front of the classroom.
- Continue until all cubes are found and at the front of the room with the spheres and cylinders from the previous lesson.

4. TEACHER SAY: You are learning so much about solid shapes. Our last one is a little bit tricky. It is made up of a triangle that curves on one side like a circle.

TEACHER DO: Draw a net of a cone on the board.

TEACHER SAY: When I peel this shape off the board and squish it in my hands, it is very sticky.

TEACHER DO: Put hands together palm to palm with fingers lining up.

TEACHER SAY: So sticky that it is like my hands are covered in ice cream. Watch as I try to pull them apart.

TEACHER DO: Pretend to struggle to pull hands apart. Finally, pull fingers apart but keep wrists connected so that a cone is formed that looks like a triangle. Rotate hands so pinkies touch and then thumbs while keeping wrists together to pantomime a cone.

TEACHER SAY: **This shape is super sticky at the bottom. Sticky like ice cream dripping out of the bottom of a cone. And guess what. This shape is a cone.**

TEACHER DO: Hold up an ice cream cone or a model of a cone.

TEACHER SAY: **Can you all try to make your own cones?**

TEACHER DO: Walk them through the steps:
- Hold out index fingers.
- Draw a triangle with a curved bottom on the floor.
- Peel it off.
- Squish shape in hands.
- Pretend to have sticky wrists so that a triangle is formed.
- Move fingers around to pantomime a cone.

TEACHER SAY: **Good, say, "Cone."**

STUDENTS DO: Say: Cone.

5. TEACHER SAY: **Wonderful job creating cones. Now pull out your super solid-shape-finding glasses one more time and see if you can find some hidden cones in the classroom. Give me a silent Thumbs Up when you have found at least two.**

STUDENTS DO: Look for cones in the room and put silent **Thumbs Up** in their laps when they have found at least two.

TEACHER DO: Repeat activity as done above:
- Ask students to touch their noses to share the location of a cone.
- Call on a student.
- Student quietly brings solid shape to the front of the classroom.

Continue until all cones are found and at the front of the room with the other solid shapes.

TEACHER SAY: **We now have four different types of solid shapes at the front of the room. We have a sphere.**

TEACHER DO: Hold up a sphere.

TEACHER SAY: **We have a cylinder.**

TEACHER DO: Hold up a cylinder.

TEACHER SAY: **A cube.**

TEACHER DO: Hold up a cube.

TEACHER SAY: **And, we have a cone.**

TEACHER DO: Hold up a cone.

6. TEACHER SAY: **If I wanted to describe the difference between a flat shape and a solid shape to a younger brother, sister, or friend, what might I say? Can you Turn and Talk to your Shoulder Partner about what the difference is between a solid shape and a flat shape?**

STUDENTS DO: Talk about flat versus solid shapes.

TEACHER SAY: **Can you raise your hand and tell the class how they might explain the difference between a flat and solid shape to a younger friend?**

STUDENTS DO: Raise their hands and share their thinking.

TEACHER DO: Call on several students. They may use examples of flat shapes versus solid shapes or have unique ways to explain the differences. If no one brings up the fact that solid shapes can be held, restate it and see if they can generate examples.

Share (5-10 minutes)

Directions

1. TEACHER SAY: We have certainly learned a lot during our math time today. We took a flat square and turned it into a cube. Can you all put your hands together and then blow them up into a cube as we did at the beginning of class?

STUDENTS DO: Make their hands into cubes.

TEACHER SAY: Wonderful, now turn and whisper to your Shoulder Partner something you know that is in the shape of a cube.

TEACHER DO: Allow students time to share.

STUDENTS DO: Share with their Shoulder Partner.

TEACHER SAY: Great. Now can you make the shape of a sticky cone with your hands?

STUDENTS DO: Make their hands into cones.

TEACHER SAY: Perfect. Now turn and whisper to your Shoulder Partner something you know that is in a shape of a cone.

TEACHER DO: Allow students time to share.

STUDENTS DO: Share with their Shoulder Partner.

TEACHER SAY: Fantastic job today. You all have learned so many new things about solid shapes. Remember, just like yesterday, to keep your solid-shape-finding glasses ready throughout today, and when you get home to be on the lookout for cubes and cones in our world.

Lesson 73 Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Skip count by twos from 2 to 20.
- Decompose three-dimensional shapes to identify the flat shapes that make them.
- Count by ones and tens to 43.

KEY VOCABULARY
- Cone
- Cube
- Cylinder
- Investigate
- Rectangular prism
- Sphere

MATERIALS
- Calendar Math Area
- Five ten frames (from previous lesson)
- Collection of objects that can be decomposed and examined (one solid object per small group of students)
- **Venn Diagram** on the board or on chart paper comparing a rectangular prism and a cube
- Markers, colored pencils, or crayons, several colors per group

LESSON PREPARATION FOR THE TEACHER

- Gather collection of solid objects to be broken apart along edges for students to see (one solid object per small group of students). (See Chapter Preparation for instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER SAY: Today we are going to skip count by twos to the number 20 again. I will point to each number as we say them together.

STUDENTS DO: Count by twos with the teacher to the number 20.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 43.

4. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today we will play a new game called Round Up. We will all quietly walk around the room, then I will say, "round up," and a number. You will need to quickly and quietly put yourselves into groups with that many students and hold hands in a circle. So if I say, "Round up 3," you quickly form a group of 3 and hold hands. If everyone is in a group of 3 and you are left over, you get to say, "Cannot round me up," after everyone is rounded up. Are you ready to play Round Up?

TEACHER DO: Play several rounds of this game, calling out numbers depending on how many students you have in your classroom. Play enough times for them to feel comfortable because this game will be expanded upon later in this unit.

TEACHER SAY: Wonderful work with Round Up. Please go back to your seats.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

STUDENTS DO: Raise their hands and share with the class their learning from the previous lesson.

TEACHER DO: If the terms cube and cone are not brought up, review them as a class. Pick up an empty cereal box.

2. TEACHER SAY: This cereal box is a new type of solid shape. It is called a rectangular prism. It looks very similar to a cube, but it is not the same shape. Say, "Rectangular prism."

STUDENTS DO: Say: Rectangular prism.

TEACHER DO: Pick up a cube.

TEACHER SAY: Can you look with your eyes and see how these two solid shapes are similar? Please Turn and Talk to your Shoulder Partner and see if you can agree on how a rectangular prism is similar to a cube.

Note to the Teacher: Students do not need to know the term rectangular prism. However, they should be able to tell that this shape is different than a cube.

STUDENTS DO: Turn and Talk to **Shoulder Partners** about how the rectangular prism is similar to a cube.

TEACHER DO: Gesture to the **Venn Diagram**.

TEACHER SAY: We have a Venn Diagram on the board. A Venn Diagram helps us compare two things. This diagram will help us compare a rectangular prism and a cube. The place in the middle is where we write the ways in which they are similar. The places outside the middle are where we write ways in which they are different. What are some things you noticed that are similar about a rectangular prism and a cube?

STUDENTS DO: Raise their hands and share their thinking.

TEACHER DO: Record their thoughts in the **Venn Diagram**. Answers may include things like: they both look like a box, they are made up of rectangles, they have the same number of sides, they have the same number of corners.

Note to the Teacher: The term "face" can be introduced. For instance, a rectangular prism and a cube both have six faces. However, it is not necessary at this level.

TEACHER SAY: Those are all great ways that a rectangular prism and a cube are similar. Now, let's look at how they are different. Turn and Talk to your Shoulder Partner about the differences between these two solid shapes.

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: Now, I will record your thinking in our Venn Diagram. What do you notice that is unique to the solid cube? Please raise your hand and share with the class.

STUDENTS DO: Raise their hands and share their thinking.

TEACHER DO: Record their thinking in the **Venn Diagram**. Answers may include that on the cube, all sides are the same. Ask what is unique about the rectangular prism and fill out the other side of **Venn Diagram**.

TEACHER SAY: Great thinking. Today we are going to do some special investigating. When we investigate something, we look at it closely and try to figure something out. Can you say the word investigate with me?

STUDENTS DO: Say: investigate.

TEACHER SAY: Wonderful. We are going to investigate what flat shapes make up solid shapes. Now, watch as I carefully take this rectangular prism apart. I want to be as careful as possible as I turn the solid shape into a flat shape.

TEACHER DO: Take apart the cereal box until it is one flat piece of cardboard.

STUDENTS DO: Observe the flattened shape.

TEACHER SAY: Now, what flat shapes do you see? Let's look for the small ones that make up the solid shape. I see a small rectangle here.

TEACHER DO: Point to one of the sides of the box.

TEACHER SAY: I will trace this small rectangle with my marker (crayon or pencil). Do you see any other flat shapes? Can I have a volunteer come to the front of the room and trace another flat shape?

STUDENTS DO: Raise their hands and a volunteer comes to the front of the room and traces the shape.

TEACHER SAY: Wonderful, _____ (student's name) found a _____ (shape's name). Now I am going to give you and your small group a solid shape. Your first job is to carefully take it apart, so it lays flat. Your second job is to find the smaller flat shapes that make up the solid shapes. Your third job is to trace them. Can you repeat the instructions after me? First, carefully take the solid shape apart.

STUDENTS DO: Repeat directions after the teacher.

TEACHER SAY: Second, find the flat shapes.

STUDENTS DO: Repeat directions after the teacher.

TEACHER SAY: Third, trace the shapes.

STUDENTS DO: Repeat directions after the teacher.

TEACHER DO: Hand out solid shapes and markers to pairs or small groups of students. Informally ask students to name their solid shape as it is handed to them.

STUDENTS DO: Complete the activity.

TEACHER DO: Walk around the room and ask the students questions such as:
- What types of shapes are you finding?
- How many (name of shape) have you found?
- Why do you think there are so many (name of shape)?
- Why do you think there are not any (name of shape)?

Share (5-10 minutes)

Directions

1. TEACHER SAY: **You all have done a wonderful job investigating solid shapes today. Are there any brave groups who would like to come up to the front of the classroom and share their learning with the class? Please raise your hand if you would like to show us the flat shapes that make up your solid shape.**

STUDENTS DO: Raise their hands.

TEACHER DO: Call on groups to share their work.

STUDENTS DO: Come to the front of the room with shapes to present.

TEACHER SAY: **Excellent learning today. Everyone give their head a pat and thank their brain for working so hard to learn new things.**

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 44.
- Identify missing numbers in a sequence up to 20.
- Apply strategies to add within 10.
- Apply strategies to subtract within 10.

- Cone
- More than
- **Role Play**
- Strategy

- Calendar Math Area
- Five ten frames (from previous lesson)
- Seven cone-shaped party hats
- Chart labeled Story Problem Strategies

LESSON PREPARATION FOR THE TEACHER

- Gather or create seven cone-shaped party hats, which can be made out of a rolled piece of paper.
- Cover five numbers on the hundreds chart between 1 and 20, such as 3, 7, 10, 13, and 20.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER SAY: Today I have hidden some numbers on the hundreds chart. You are going to investigate and see if you can figure out what numbers are hidden. Can you look at the hundreds chart and then Turn and Talk to your Shoulder Partner to see if you can figure out some of the missing numbers?

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: If you think you can tell us one of the missing numbers, please raise your hand.

STUDENTS DO: Raise their hands.

TEACHER DO: Call on students to share. Write the number they think are missing on the card, covering the actual number on the hundreds chart for all missing numbers. Let five different students share their thinking.

TEACHER SAY: Let's now check our work by counting to 20 and seeing if it sounds right with the numbers you told us were missing. Help me count.

TEACHER DO: Count up to 20, saying the numbers the students suggested. If they are incorrect, give enough **Wait Time** for the students to catch the mistake before you point it out. Unveil the previously covered numbers.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 44.

4. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today we will play Round Up again. Remember, we quietly walk around the room, and then I say, "Round up," and a number. You need to quickly and quietly put yourselves into groups with that many students and hold hands in a circle. So, if I say, "Round up

4," you quickly form a group of 4 and hold hands. If everyone is in a group of 4 and you are left over, what do you get to say? Shout it out.

👥 **STUDENTS DO:** Say: Cannot round me up.

TEACHER DO: Play two rounds of this game, calling out numbers depending on how many students you have in your classroom. Then stop the game and add the next element.

TEACHER SAY: Nice work with Round Up. Now, we are going to change the game a little bit. After I say, "round up," and you form your groups, I will add another step. I will say, "And then 1 more." Your group will need to get 1 more student to add to its group. If you had four 4, you will now need a group of 5. This means some of your groups have to split up. When we have made as many groups of 5 as we can, any remaining students will say, "Cannot round me up."

TEACHER DO: Play this game two times.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

👥 **STUDENTS DO:** Raise their hands and share with the class their learning from the previous lesson.

2. TEACHER SAY: Today we are going to pretend to throw a party. It will be a special party that will need some solid shapes. The first solid shape we will need will be a cone. The cone will be the party hat.

TEACHER DO: Show the students the cone party hat.

TEACHER SAY: Can I have some volunteers to help me? Please raise your hand if you would like to help Role Play a math problem.

👥 **STUDENTS DO:** Raise their hands.

TEACHER DO: Have three students come to the front of the room.

TEACHER SAY: Think quietly in your head for a moment. If I had 3 guests at my party, how many cone party hats would I need? Now Whisper the answer into you hand.

👥 **STUDENTS DO: Whisper** into their hands: 3.

TEACHER SAY: That is right. I would need 3 party hats.

TEACHER DO: Hand out the party hats to the 3 volunteers.

TEACHER SAY: Can you 3 put on the party hats?

👥 **STUDENTS DO:** Hold party hats on their heads.

TEACHER SAY: But what if even more guests came to my party?

TEACHER DO: Ask 4 more students to come stand at the front of the classroom.

TEACHER SAY: Oh no, how many more party hats do I need? Whisper the answer into your hand.

👥 **STUDENTS DO: Whisper**: 4.

TEACHER SAY: Yes. Now I need 4 more party hats.

TEACHER DO: Hand out 4 more party hats.

TEACHER SAY: Now all of my guests have cone-shaped party hats. How many party hats have I handed out in all? Think quietly and Whisper count if you need to. When you know, give me a quiet Thumbs Up.

STUDENTS DO: Think about the problem and give a **Thumbs Up** when they know the answer.

TEACHER SAY: Touch your nose if you would like to share with the class how many party hats there are in all.

STUDENTS DO: Touch their noses.

TEACHER DO: Call on several students to share their answers. Write the answers on the board.

TEACHER SAY: Now who can raise their hand and share their strategy? Remember, a strategy is your special way to solve a problem.

TEACHER DO: Call on several students to say what they think the answer is and to explain their strategy. Ask them questions to draw out more of their thinking, such as:
- Did you point to each person?
- Did you say the numbers in your head?
- Did you **Whisper** the numbers to yourself?
- Did you double check?

TEACHER SAY: Those are all wonderful strategies. Our party volunteers at the front of the room helped us out with another type of strategy. It is called Role Playing. One thing that good mathematicians can do to solve a story problem is to Role Play. Our volunteers showed us with their bodies how to solve the problem. Please clap for our volunteers as they return to their seats.

STUDENTS DO: Return to their seats as seated students clap.

TEACHER SAY: I am going to write Role Play on our strategy chart and draw a little picture of our seven students with party hats on, so we can remember what it means to Role Play a story problem.

TEACHER DO: Write and draw on the strategy chart.

TEACHER SAY: Now let us try this strategy again with a different problem. What if I had 9 guests at my party and then 2 left. How could we role play that problem? Turn and Talk to your Shoulder Partner if you have an idea of how we could role play having 9 guests at a party and then having 2 leave.

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: Now raise your hands if you would like to share how to role play that story problem.

STUDENTS DO: Raise their hands and share their thinking.

TEACHER DO: Listen to students' suggestions and try them out as a class. Walk through the problem step by step, starting with 9 guests and then having 2 of the 9 sit back down.

Share (5-10 minutes)

Directions

1. TEACHER SAY: You all have done a wonderful job solving story problems using our strategy of Role Playing today. Can you now please Turn and Talk to your Shoulder Partner what it means to Role Play a story problem?

STUDENTS DO: Talk to their partners.

TEACHER SAY: Wonderful job acting out and solving story problems today. We will learn even more strategies to solve story problems in our next class.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 45.
- Identify missing numbers in a sequence up to 30.
- Apply strategies to subtract within 10.

- Strategy
- Visualization

- Calendar Math Area
- Five ten frames (from previous lesson)
- Math journal

LESSON PREPARATION FOR THE TEACHER

- Cover five numbers on the hundreds chart between 1 and 30 for the students to determine.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER SAY: Today I have hidden some different numbers on the hundreds chart, all the way up to 30. You are going to investigate and see if you can figure out what numbers are hidden. Look at the hundreds chart and then Turn and Talk to your Shoulder Partner to see if you can figure out some of the missing numbers.

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: If you think you can tell us one of the missing numbers, please raise your hand.

STUDENTS DO: Raise their hands.

TEACHER DO: Call on students to share. Write the number they think is missing on the card covering the actual number on the hundreds chart. Let five different students share their thinking.

TEACHER SAY: Let us now check our work by counting to 30 and seeing if it sounds right with the numbers you said were missing. Help me count.

TEACHER DO: Count up to 30, saying the numbers the students suggested. If they are incorrect, give enough **Wait Time** for the students to catch the mistake before you point it out. Unveil the previously covered numbers.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 45.

4. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today we will play Round Up again, but this time after you are in your group, I will say, "Take away," and a number. So, if I say, "Round up 3," you would first form a group of 3. Then I might say, "Take away 2." Two people in your group will sit down. When everyone is sitting down, they will all say together, "Cannot round me up."

TEACHER DO: Play two rounds of this game.

TEACHER SAY: Nice work with Round Up.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

STUDENTS DO: Raise their hands and share with the class their learning from the previous lesson. If it is not mentioned, remind them that they learned that **Role Play** is a strategy for solving word problems.

2. TEACHER SAY: Today we are going to continue our work with story problems and work on two strategies: drawing pictures and visualizing. Let's try visualizing together. Imagine we are all outside. Close your eyes and picture us all sitting outside. The sun is shining, and we are all lying on our backs looking at the sky. We are visualizing. We are using our imaginations to see the problem in our heads.

We are lying on our backs, looking at the sky, and we see 8 birds in a tree. Wow. Eight birds in a tree. That is a lot. Can you see them all? Suddenly, a cat walks by and 3 birds fly away. Can you picture that in your head? There were 8 birds in the tree and then 3 of them flew away. Now I want you to think about how many birds are still in the tree. Please open your eyes. If your answer is greater than—or more than—8, please raise your hand.

Note to the Teacher: Visualization instructions can be done in a different voice to further engage the students.

STUDENTS DO: Raise their hands if they think the answer is greater than 8.

TEACHER SAY: If your answer is less than—or smaller than—8, please raise your hand.

STUDENTS DO: Raise their hands if they think the answer is less than 8.

TEACHER SAY: Now, we will use our visualization strategy and our drawing strategy together.

TEACHER DO: Move toward the board to draw the problem.

TEACHER SAY: First I will draw the tree that we were visualizing. Remember, this is a math class and not an art class. My drawing does not need to be perfect.

TEACHER DO: Draw a tree.

TEACHER SAY: Can you remember how many birds were on the tree in the beginning? Please tweet out your answer like you are a little bird.

STUDENTS DO: Tweet: 8.

TEACHER SAY: That is right. There were 8 birds. I will draw 8 birds in this tree.

TEACHER DO: Draw 8 birds in the tree.

TEACHER SAY: And some of them flew away. Can you tweet like a little bird the number of birds that flew away?

STUDENTS DO: Tweet the number 3.

TEACHER SAY: How can I show that they flew away? What could I do? Do you have any suggestions? Please raise your hand if you could tell me what I can do to the drawing to make it look like the birds flew away.

STUDENTS DO: Raise their hands and share their thinking. Some may suggest erasing the birds who flew away and others might want to draw them in the sky.

TEACHER DO: If it is not suggested, tell the students that one thing mathematicians do is to mark out the birds that left. Point out that erasing is a great idea but that marking them out will save them time. Cross out 3 birds.

TEACHER SAY: Great. I had 8 birds and 3 of them flew away. How many were left in the tree? Look. Now I can count the number of birds left.

TEACHER DO: Gesture to the remaining birds and count 1, 2, 3, 4, 5.

TEACHER SAY: Five. There are 5 birds left in the tree. Visualizing and drawing are two great strategies we can add to our chart.

TEACHER DO: Write the word visualizing on the strategy chart.

TEACHER SAY: I am adding the word visualizing and drawing a person thinking beside the word.

TEACHER DO: Draw a person thinking beside the word.

TEACHER SAY: Remember, visualizing means that you are seeing the problem in your mind. You are using your imagination. Underneath the word visualizing, I will add drawing. Drawing a problem helps us to count and to show what we are visualizing in our heads.

TEACHER DO: Write the word drawing on the chart and draw the same picture of the tree with the birds.

TEACHER SAY: I will add the picture from today's lesson to help us remember to draw out our story problems. Now I will hand out your math journals and I want you to try to visualize the problem I tell you and then draw it.

TEACHER DO: Hand out math journals.

TEACHER SAY: Okay, close your eyes and picture us back in the same place as before. We are all lying on our backs and looking at a tree full of birds. This time there are 6 birds in the tree. Can you picture that in your heads? Look. That same cat is walking by the tree again. Two of the birds fly away. Can you see it? Great, now open your eyes.

STUDENTS DO: Open their eyes.

TEACHER SAY: Now, turn to Lesson 75 in your math journals. What is the first thing you will draw? Tweet out your answer.

STUDENTS DO: Tweet: tree.

TEACHER SAY: Yes, you will draw your tree first. Remember, there were 6 birds in the tree. Please draw your tree with 6 birds.

STUDENTS DO: Draw a tree with 6 birds.

TEACHER SAY: Then, the cat came along and scared 2 of the birds. They flew away. Can you show that in your drawing?

STUDENTS DO: Make their drawings reflect the story problem.

TEACHER SAY: Now, count how many birds are still in the tree. When you know, show me on your fingers.

STUDENTS DO: Count the number of birds still in the tree and hold up 4 fingers.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Wonderful work today. For share, I would like you to talk to your **Shoulder Partner** and show them your work. Make sure you show them how you drew the birds that flew away. Partners, please check their work. Make sure that they drew 6 birds and then showed that 2 of them flew away. The shorter partner can share first.

STUDENTS DO: Talk to their partners.

TEACHER SAY: Excellent job visualizing and drawing your story problems today.

Note to the Teacher: Look at students' journal pages to see who may need additional instruction.

Lesson 76 | Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 46.
- Find the number of objects that make 10 when added to any number 1 through 9.
- Apply strategies to add within 10.

KEY VOCABULARY

- How far
- Pair
- Strategy

MATERIALS

- Calendar Math Area
- Five ten frames (from previous lesson)
- **Ten Can**
- Sets of Ten Frame Cards (one set per student, pair of students, or small group of students)
- Envelopes or paper bags
- Sets of 10 counters (one set per student, pair of students, or small group of students and one set for the teacher)
- Number line for 0-10 (one set per student, pair of students, or small group of students)

LESSON PREPARATION FOR THE TEACHER

- Preview the lesson and decide if you will have students work independently, in pairs, or in small groups. You will need to prepare materials accordingly. (This lesson describes the students working independently. If needed, change the wording to fit the grouping you selected.)
- Create a **Ten Can**. (See Chapter Preparation for instructions.)
- Prepare sets of Ten Frame Cards (one set per student is ideal, but they can also play with partners, small groups, or the whole class). (See Ten Frame Cards Blackline Master.) If a printer is not available, these cards can be reproduced by hand.
- Gather envelopes or paper bags to store each set of Ten Frame Cards.
- Gather sets of 10 counters (one set per student, pair of students, or small group of students).
- Print out or create number lines from 0 to 10 (one set per student, pair of students, or small group of students). (See Number Line 0-10 Blackline Master.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 46.

3. TEACHER DO: Draw a number line from 0 to 10 on the board and hold the **Ten Can**.

TEACHER SAY: Today we are going to play a game called How Far From Ten. This can is my Ten Can. Inside of it I have the numbers 0 to 10 written down. My first step will be to pick a number out of the can.

TEACHER DO: Pick a number out of the can. For the first round, pick another number if the number 10 is chosen.

TEACHER SAY: I picked _____ (name of number). My next step is to locate that number on my number line. I will place my finger on the number _____ (name of number). Now, we need to figure out how far the number _____ (name of number) is from 10. Watch as I count my jumps.

TEACHER DO: Count the jumps, saying the numbers aloud.

TEACHER SAY: _____ (Name of number) is _____ (number of jumps) away from 10.

Note to the Teacher: For example, if you pick a 3 out of the **Ten Can**, *place your finger on the 3 and count 7 jumps to 10. Count aloud each time you move your finger.*

TEACHER SAY: **Now, I will hand each one of you your own number line and we will play How Far From Ten together.**

👥 **STUDENTS DO:** Practice playing How Far From Ten as a class.

TEACHER DO: Play this game until the end of the Calendar and Movement segment of the lesson. Students can also take turns picking the number from the **Ten Can**. Collect all of the number lines.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: **Can someone please raise their hand and remind us what we learned during our last math class?**

👥 **STUDENTS DO:** Raise their hands and share with the class their learning from the previous lesson.

2. TEACHER SAY: **Today we are going to play a new game called Memory Make 10. I have a set of ten frame cards with the numbers 0 to 10 on them. My goal is to turn over two cards that, when I put them together, make the number 10. I also have a set of 10 _____ (name of counters) to help me with my math. Today, we are first going to play with all the cards facing up.**

TEACHER DO: Take the cards and show students how to set them in a rectangle in front of them with all the cards face up.

TEACHER SAY: **I see that I have a 1 card. What number goes with 1 to make 10? There are two strategies I can use to figure out what goes with 1 to make 10. I can use my counters. I can place a 1 on the 1 card and then count how many I have left. Let's try that first.**

TEACHER DO: Place one counter on the 1 card.

TEACHER SAY: **Now I can count how many I have left: 1, 2, 3, 4, 5, 6, 7, 8, 9. That tells me that 1 and 9 go together to make 10. The other strategy I can use is to look at the ten frame. When I look at the ten frame on the 1 card, I see that there is one dot. If I count the blank squares…**

TEACHER DO: Point to the blank squares while counting.

TEACHER SAY: **… I can count how many do not have dots: 1, 2, 3, 4, 5, 6, 7, 8, 9. This is a way for me to double check that 1 and 9 make 10. Then I can find all of the 1 cards and match them with the 9 cards and make a stack over here.**

TEACHER DO: Make a stack of the 10s matches face down on the side.

TEACHER SAY: **Now, let's try it with another number.**

TEACHER DO: Repeat the process with another number. **Model** both with counters and by counting the blank squares on a ten frame.

Note to the Teacher: If this game is too challenging for the class to play independently, work together as a class and play a couple of rounds together or divide the set of cards in half. Alternatively, if students are ready, they can also play with the cards face down so that they also have to recall where each number is placed.

TEACHER SAY: **Now it is your turn to try. First, I will hand out envelopes with your cards inside and some counters.**

TEACHER DO: Hand out student card sets and counters.

TEACHER SAY: Take your stack of cards and lay them in front of you like mine. Remember to use your counters to help you count.

👥 **STUDENTS DO:** Play the game

TEACHER DO: Walk around and watch how the students play. Pay attention to who is using the counters and who is counting the empty squares.

TEACHER SAY: Wonderful job playing Memory Make 10 today. Please stack all of your cards into one pile and place them in the envelope with your name on it. You will need these cards again for another game tomorrow.

TEACHER DO: See that students place cards in envelopes. Collect envelopes with cards in them.

Share (5-10 minutes)

Directions

1. TEACHER DO: Bring teacher set of cards to share.

TEACHER SAY: Excellent work today making 10 pairs. A pair is something that goes together, like a pair of socks or a pair of earrings. A 10 pair is two numbers that go together to make the number 10.

TEACHER DO: Turn over one card.

TEACHER SAY: If I have _____ (number on card), what number would be its pair? What number goes with _____ (number on card) to make the number 10? Please raise your hand if you know. Remember, you can look at the ten frame on the bottom of my card to help you.

👥 **STUDENTS DO:** Raise their hands to name the card's pair.

TEACHER DO: Repeat this with several different cards.

TEACHER SAY: Wonderful work today with 10 pairs.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 47.
- Find the number of objects that make 10 when added to any number 1 through 9.
- Apply strategies to add within 10.

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

KEY VOCABULARY

- Add
- How far
- Pair

MATERIALS

- Calendar Math Area
- Five ten frames (from previous lesson)
- **Ten Can**
- Sets of Ten Frame Cards (one set per student, pair of students, or small group of students)
- Envelopes or paper bags
- Sets of 10 counters (one set per student, pair of students, or small group of students and one set for the teacher)
- Number line for 0-10 (one set per student, pair of students, or small group of students)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 47.

3. TEACHER SAY: Today we are going to play How Far From Ten again. Can I have a volunteer to hand out the number lines?

STUDENTS DO: Hand out number lines.

TEACHER SAY: I also need a helper to pick the numbers for us today. Please raise your hand if you would like to be the teacher. You will review how to play the game and then call out the numbers.

TEACHER DO: Pick a student to be the teacher. Help them review how to play the game and then play as a class.

STUDENTS DO: Play two to three rounds of the game using the **Ten Can**.

TEACHER DO: Ask the class to thank their volunteer teacher and collect the number lines.

TEACHER SAY: Great job playing How Far From Ten today.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

👥 **STUDENTS DO:** Raise their hands and share with the class their learning from the previous lesson. If the term pair does not come up, as in, "We made 10 pairs," remind students of this word and its definition.

2. TEACHER SAY: Today we are going to play Memory Make 10 again, but this time we are going to place the cards face down. The face of the card is the part that has the numbers on it. We will turn the card over, so the game is more challenging.

Note to the Teacher: If this game is too challenging for the class to play independently, work together as a class and play a couple of rounds together. If they are not ready to play the game with the cards face down, play with the cards face up. This decision could also vary by student, as some may be ready for more of a challenge and others may need an additional review.

TEACHER SAY: As in our last math class, I have a set of ten frames with the numbers 0 to 10 on them. This time I will place them all face down, so the numbers are hidden.

TEACHER DO: Lay the cards out face down in a rectangle.

TEACHER SAY: My goal is still to turn over two cards that, when I put them together, or add them, make the number 10. The word add is the mathematical word for put together. Can you say the word add with me three times?

👥 **STUDENTS DO:** Repeat three times: add.

TEACHER SAY: And, just like yesterday, I also have a set of ten counters to help me with my math. My first step is to turn over two cards.

TEACHER DO: Turn over two cards and keep them face up on the floor in the same location they were before.

TEACHER SAY: I see that I have a _____ (name of number) card and a _____ (name of number) card. My second step is to ask myself: Are these cards a 10 pair? I can check by using my counters or using the ten frames.

TEACHER DO: Model how to do both. Use the counters and the ten frames.

TEACHER SAY: If my cards are a 10 pair, I will remove them and make a pile on the side. If they are not a 10 pair, I will turn them back over and try again.

TEACHER DO: Model how to play this game several rounds, using both counters and the ten frame.

TEACHER SAY: Now it is your turn to try. I will hand out your cards and counters.

TEACHER DO: Hand out card sets and counters to students.

TEACHER SAY: Take your stack of cards and lay them in front of you like mine. Remember to use your counters to help you count.

👥 **STUDENTS DO:** Play the game

TEACHER DO: Walk around and watch how the students play. Pay attention to who is using the counters and who is counting the empty squares.

TEACHER SAY: Wonderful job playing Memory Make 10 today. Please stack all of your cards into one pile and place them in the envelope.

Share (5-10 minutes)

Directions

1. TEACHER DO: Show teacher set of ten frame cards to the class. Do not have the cards in any particular order but have all numbers visible.

TEACHER SAY: Excellent work today making 10 pairs. Remember, a pair is two things that go together, like a pair of socks or a pair of earrings. A 10 pair is two numbers that go together to make the number 10.

TEACHER DO: Select one card.

TEACHER SAY: If I have _____ (number on card), what number would be its pair? What number goes with _____ (number on card) to make the number 10? Please raise your hand if you know. Remember, you can look at the ten frame on the bottom of my card to help you.

STUDENTS DO: Raise their hands to name the card's pair.

TEACHER SAY: Right. Now if instead I have _____ (number student just named), what number would be its pair? Please raise your hand if you know.

TEACHER DO: Repeat this with several different cards. Reinforcing, for example, the fact that 3 is a pair with 7 and 7 is a pair with 3.

TEACHER SAY: Wonderful work today with 10 pairs.

Lesson 78 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 48.
- Find the number that makes 10 when added to any number 1 through 9.
- Apply strategies to add within 10.

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

KEY VOCABULARY

- Add
- Pairs

MATERIALS

- Calendar Math Area
- Five ten frames (from previous lesson)
- **Ten Can**
- Sets of 10 counters (one set per student, pair of students, or small group of students and one set for the teacher)
- Number line for 0-10 (one set per student, pair of students, or small group of students)
- Math journal

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 48.

3. TEACHER DO: Play How Far From Ten again today. See **Lesson 77** for instructions, if needed. Select a student to be the teacher who explains the rules and chooses numbers from the **Ten Can**. Students will use number lines again later in this lesson. Do not collect them right away.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

STUDENTS DO: Raise their hands and share with the class their learning from the previous lesson, focusing on 10 pairs.

2. TEACHER SAY: Today we are going to talk about the word add. Remember, add means to put together to have more of something. We are going to work on a story problem and prepare to play a new game in our next class. First, I am going to hand out your math journals. Please take out your pencil and turn to Lesson 78 in your math journal.

TEACHER DO: Hand out math journals.

**TEACHER SAY: We are going to use our strategies of visualization and drawing pictures today to talk about adding. Close your eyes and try to visualize the following problem:
Our class had 5 books about animals on a shelf. Can you visualize a shelf with 5 books about animals? Then, I went to the bookstore and bought 3 more books about animals and put them on the same shelf. How many books do we now have about animals? Can you see the picture in your head? We had 5 books about animals and then I added 3 more. How many books do we have in all? Now, open your eyes and draw the problem in your math journals.**

STUDENTS DO: Draw the problem in their math journals.

TEACHER DO: Walk around and check their work. Make sure to give students time to finish. Coach them on remembering that this does not have to be a perfect drawing.

TEACHER SAY: Great. Now will you please share your work with your Shoulder Partner. The student who is the tallest will be the first to share. Your partner will check your math and make sure your numbers and drawing are correct.

STUDENTS DO: Share their work with each other.

TEACHER SAY: Make sure that each partner has a chance to share.

STUDENTS DO: Switch roles.

TEACHER SAY: Great, now who can walk me through the steps to draw the problem on the board? Please raise your hand and tell me how to draw this problem.

STUDENTS DO: Raise their hands and walk teacher through how to draw the problem.

TEACHER SAY: Wonderful job using your strategies of visualization and drawing. We are going to play a game to work on adding. Today, I will hand out two tools to help you get ready to play the game tomorrow. Each small group needs a number line and each student needs one counter.

TEACHER DO: Distribute number lines and counters to groups of two or three students.

TEACHER SAY: When we play the game, you will have to listen carefully to figure out my number. We will practice with the number lines. Please place your number lines in front of you and your counters to the side.

STUDENTS DO: Move their number lines in front of them and their counters to the side.

TEACHER SAY: Looking at your number line, can you see which way the numbers get bigger and which way the numbers get smaller? Please put your finger on the smallest number on your number line.

STUDENTS DO: Put their fingers on the 0.

TEACHER SAY: Yes, 0 is the smallest number on your number line. Can you please put your finger on the largest number on your number line?

STUDENTS DO: Put their fingers on the number 10.

TEACHER DO: Model this by putting a finger on the 0 and moving it to the 10.

TEACHER SAY: Yes, 10 is the largest number on our number line. The numbers get larger as we move from the 0 to the 10.

TEACHER SAY: We are going to use these number lines to see if you can find the number I am thinking about. If I said my number is one more than 3, first I will put my counter on the number 3. Can you put your counter on the number 3?

STUDENTS DO: Move counters to 3 on the number line.

TEACHER SAY: Great. Now, I said my number is one more than 3. So, I will look on my number line and move my counter 1 jump to the next number. Can you try moving your counter one more?

STUDENTS DO: Move counters to 4 on the number line.

TEACHER DO: Move around the room to see if students are using the number lines and counters correctly. Help as needed.

TEACHER SAY: What number is one more than 3? Can you shout it out?

STUDENTS DO: Shout: 4.

TEACHER SAY: Yes, 4 is one more than 3. Shall we try another one? Remove your counter from your number line. My number is 2 more than 4. Who can raise a hand and tell me where to put my counter?

STUDENTS DO: Raise their hands and share with the class to put the counter on the number 4.

TEACHER SAY: Exactly, our first step is to put the counter on the number 4. But my number is not 4. It is two more than 4. What is our next step? Can you touch your nose if you can tell the class?

STUDENTS DO: Touch their noses.

TEACHER DO: Call on a student to share that they move the counter up 2 times.

TEACHER SAY: Great. You move the counter 2 times. On what number do you end up if you are looking for two more than 4? Turn and tell your Shoulder Partner.

STUDENTS DO: Turn and talk to their partners.

TEACHER SAY: Can you hiss the number like a snake?

STUDENTS DO: Hiss: 6.

TEACHER SAY: Excellent hissing. Working with your Shoulder Partner, let's try one more. My number is 2 more than 7. See if you and your partner can figure out what number is two more than 7. When you know, mark it with your counter on your number line and touch your nose.

STUDENTS DO: Work with their partners to see if they can mark the number 9 on their number line.

TEACHER SAY: What number is 2 more than 7? Can you roar the number out loud like a lion?

STUDENTS DO: Roar: 9.

TEACHER DO: Model how to solve this problem for the class on the board.

TEACHER SAY: Excellent work today. I will collect your counters and number lines.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Wonderful work today in class. We worked on adding more to a number. Can someone explain what it means to add? Touch your nose if you think you can explain it to the class.

STUDENTS DO: Touch their noses.

TEACHER DO: Call on students to share.

Note to the Teacher: This is a wonderful time to check students' understanding of the terms one more and add. Take the time to slow down and make sure they can describe it in their own words. Use concrete examples if needed. For example, have three students stand up and then add two more students by asking them to stand up.

TEACHER SAY: Great work today. We will be ready to play our Math Is Fun game in our next class.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 49.
- Add and subtract on a number line to find a mystery number.
- Apply strategies to add within 10.

Key Vocabulary:
- Add
- More than

Materials:
- Calendar Math Area
- Five ten frames (from previous lesson)
- **Ten Can**
- 0 to 10 Game Card (one per student, pairs, or group)
- Number line 0-10
- Sets of 10-15 counters (one set per student, pair of students, or group)

LESSON PREPARATION FOR THE TEACHER

- Preview the lesson and decide if you will have students work independently, in pairs, or in small groups. You will need to prepare materials accordingly. (This lesson describes the students working independently. If needed, change the wording to fit the grouping you selected.)
- Prepare sets of 10-15 counters (one set per student, pair of students, or group).
- Print out or create 0 to 10 Game Cards (one per student, pair, or group). (See 0 to 10 Game Card Blackline Master.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 49.

3. TEACHER SAY: Today we are going to play a game similar to How Far From 10 and similar to what we worked on yesterday. We are going to play Guess My Number. First, I will pick a number from our Ten Can. Then I will give you clues about my number. You and your Shoulder Partner will use your number lines to see if you can figure out the number.

TEACHER DO: Hand out number lines and choose a number from the **Ten Can**. Create a clue for your number. For example, if you pick the number 5, tell students your number is 1 more than 4. If necessary, give them another clue about the number, such as, "It is 2 more than 3."

STUDENTS DO: Use their number lines to help them figure out the answer.

TEACHER DO: Play this game until the end of the Calendar Math segment. Be sure to check students' understanding. Have students keep their number lines for this lesson's Learn.

Learn (25-30 minutes)

3. TEACHER SAY: Can someone please raise their hand and remind us what we learned during our last math class?

STUDENTS DO: Raise their hands and share with the class their learning from the previous lesson.

TEACHER DO: Remind them of the words "add" and "more than" if it does not come up in discussion.

TEACHER SAY: Today we are going to take all that you know about adding more to a number and play a game.

TEACHER DO: Hand out the 0-10 Game Cards to pairs or small groups of students, keeping one for yourself.

TEACHER SAY: You will notice that the game cards have the number 0 to 10 written several times on them. Right now, please place your finger on the 0 at the top.

TEACHER DO: Model where students should place their fingers.

TEACHER SAY: Watch as I move my finger across the top row. Let's say all of the names of the numbers together.

STUDENTS DO: Say 0, 2, 5, 1, 3 with the teacher as they read the numbers across the top row.

TEACHER SAY: Are the numbers in the proper order, like 1, 2, 3, 4, 5? Give me a Thumbs Up if you think they are in the proper order and a thumbs down if you think they are not.

STUDENTS DO: Give a thumbs down.

TEACHER SAY: They are not in the proper order, but that is okay for our game. Now I will hand out your counters.

TEACHER DO: Hand out counters, keeping a set for yourself.

TEACHER SAY: Today when you know what number I am explaining, you will mark it on your number line and mark it on your game card. Let's all practice. If I said my number is 2 more than 3, can you mark that number on your number line?

STUDENTS DO: Mark the number 5 on their number line.

TEACHER DO: Monitor the class and see if they can do this independently. If not, work together to first put the counter on the 3 and then jump two spaces to the 5.

TEACHER SAY: Now, knowing the number is 5, you can now pick which 5 you would like to cover on your game board.

TEACHER DO: Model covering one of the fives on your game card.

TEACHER SAY: The object of the game is to get 5 numbers covered on your board. They can be in a row that goes from one side to the other.

TEACHER DO: Model what this would look like on your game card.

TEACHER SAY: In a column that goes up and down.

TEACHER DO: Model what this would look like on your game card.

TEACHER SAY: Or, diagonally.

TEACHER DO: Model what this would look like on your game card.

TEACHER SAY: If you get 5 numbers covered in a row, a column, or diagonally, yell, "Math is fun." Are there any questions?

STUDENTS DO: Ask questions.

TEACHER SAY: Let's begin. You should all have a 5 already marked on your game board. Your next number is 1 more than 4.

STUDENTS DO: Mark another number 5 on the game card.

TEACHER SAY: That is right. You now have two different 5s marked on your game card. I will choose a different number next time.

TEACHER DO: Walk around and see if they can figure out the steps. Repeat the steps with the following clues:
- 5 more than 2
- 1 more than 0
- 3 more than 5
- 6 more than 1

Continue to generate more problems until a student has 5 in a row. Write down the correct answers on a separate sheet of paper so you can check their work if they think they have 5 in a row. When a student calls out, "Math is fun," have them tell you each number they have covered. Continue to play this game by having students remove all of their counters from the card and using new clues.

TEACHER SAY: Wonderful job today working with adding numbers. I will now collect all of your supplies, so we can use them in our next math class together.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share I would like you use your fingers to answer the questions I am going to ask you. Please hold up your fingers when you know the answer. What is 2 more than 1? Please hold up the number on your fingers.

STUDENTS DO: Hold up 3 fingers.

TEACHER SAY: What is 4 more than 2? You will need 2 hands for this problem.

STUDENTS DO: Hold up 6 fingers.

TEACHER SAY: Here is one you really need to think about. What is 5 more than 5?

STUDENTS DO: Hold up 10 fingers.

Note to the Teacher: This Share is a great informal assessment of students' understanding. Observe how they think about the problems and the strategies they use to solve them.

TEACHER SAY: Great work today. We will be ready to play our game in a different way in our next class.

Lesson 80 | Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 50.
- Add and subtract on a number line to find a mystery number
- Apply strategies to subtract within 10.

KEY VOCABULARY
- Double check
- Less than
- Strategy
- Subtraction
- Visualization

MATERIALS
- Calendar Math Area
- Five ten frames (from previous lesson)
- **Ten Can**
- 0 to 10 Game Card (one per student, pairs, or group)
- Number line 0-10
- Sets of 10-15 counters (one set per student, pair of students, or group)

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

📅 Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 50. Observe that all ten frames are now full.

3. TEACHER SAY: We are going to play Guess My Number again, but today we are going to work on subtraction or taking away. First, I will pick a number from our Ten Can. Then I will give you clues about my number. You and your Shoulder Partner will use your number lines to see if you can figure out the number.

TEACHER DO: Hand out number lines and choose a number from the **Ten Can**. Create a clue for your number. For example, if you pick the number 7, tell students your number is 1 less than 8. Give them another clue about the number, such as, "It is 2 less than 9."

Note to the Teacher: If this concept is difficult, model it several times on the board for the class to see.

STUDENTS DO: Use their number lines to help them figure out the answers.

TEACHER DO: Play this game until the end of the Calendar Math segment and check students' understanding. Collect all number lines.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Raise your hand if you can remind us what we learned during our last math class.

STUDENTS DO: Raise their hands and share with the class their learning from the previous lesson.

TEACHER SAY: Today we are going to practice our visualization and drawing strategies with subtraction problems. Subtraction is the math word used to describe when we take a certain

amount away from another number. In a subtraction problem, our answer will be less than the biggest number we started with. The best way to understand subtracting is to practice. Please close your eyes and get ready to visualize, or see in your mind, this subtraction story.

STUDENTS DO: Close their eyes.

TEACHER SAY: Lotfia's mother bought 10 figs at the market. Can you picture her mother at the market? You can see all of the pretty figs. Her mother is choosing the 10 best to take home to Lotfia. Lotfia loves figs. When her mother brought them home, Lotfia ate 3 figs. How many figs are left? Picture it in your mind. Please open your eyes.

TEACHER DO: Repeat the subtraction story, if necessary.

STUDENTS DO: Practice visualization strategy, listen to subtraction story, and open their eyes.

TEACHER SAY: Think: If Lotfia had 10 figs and ate 3, will the number left be greater than 10? Or, will the number left be less than 10? If you think the number will be greater than 10, give me a Thumbs Up.

STUDENTS DO: Give a **Thumbs Up** if they think the number will be greater than 10.

TEACHER SAY: If you think the number will be less than 10, please put a Thumb Up.

STUDENTS DO: Put a **Thumb Up** if they think the number will be less than 10.

TEACHER SAY: Let's practice this problem on our fingers. Lotfia had 10 figs. Can you hold up 10 fingers?

STUDENTS DO: Hold up 10 fingers.

TEACHER SAY: Then she ate 3 of them. What do you think we could do with your fingers to show that she ate 3 of them? Whisper to your Shoulder Partner how you could show with your fingers that she had 10 figs and then ate 3 of them.

STUDENTS DO: Talk to their partners.

TEACHER SAY: What are some of your ideas? Please raise your hand and share them with the class.

STUDENTS DO: Raise their hands to volunteer.

TEACHER DO: Call on several students to share their thinking. They may pretend to eat 3 of their fingers or suggest putting 3 fingers down. If neither of these ideas are suggested, show the class how they can count 3 of their 10 fingers and then put them down. Allow time for students to practice this by counting on their partner's fingers.

STUDENTS DO: Selected students explain their strategies.

2. TEACHER SAY: Using your fingers to help you count is another good strategy. Now, I will hand out your math journals and we can practice drawing this problem.

TEACHER DO: Hand out math journals.

TEACHER SAY: Please turn to Lesson 80. First, we need to draw the 10 figs that Lotfia's mother bought. Can you draw the 10 figs on your page? Remember, in math our drawings are quick and do not need to be perfect. You could use a circle to draw a fig.

STUDENTS DO: Draw 10 figs in their math journals.

TEACHER DO: Walk around and see if they can draw 10 figs.

TEACHER SAY: Remember, good mathematicians, people who do math like you, always double check their work. After you draw 10 figs, double check by recounting them.

👥 **STUDENTS DO:** Recount the figs they drew in their math journals.

TEACHER SAY: Wonderful. Now, Lotfia ate 3 of those figs. How can you show in your drawing that she ate 3 of them? What could you do? Can you show me in your math journal?

👥 **STUDENTS DO:** Find a way to communicate in their drawing that 3 of the 10 figs were eaten.

TEACHER DO: Walk around and see how students are showing 10 minus 3. They may be erasing the figs that she eats, circling them, or crossing them out.

TEACHER SAY: How did you show in your drawing that she ate 3 of the 10 figs? Can someone raise their hand and bring their math journal to the front of the room, so we can share it with the class?

👥 **STUDENTS DO:** Raise their hands to share.

TEACHER DO: Call on a student to share. Recreate their drawings on the board as they explain their thinking (or have the student recreate the drawing on the board). Ask if anyone solved the problem in a different way in their drawing. If so, have them share their thinking and draw it for the class.

👥 **STUDENTS DO:** Selected students explain their strategies and share their drawings.

TEACHER SAY: Wonderful. Now remember, the question was: How many figs were left? Use your drawing and see if you can figure out how many of the figs were left. When you have an answer, please write it on your page.

👥 **STUDENTS DO:** Work on solving the problem and write the number 7 on their pages.

TEACHER SAY: How did you solve the problem? Who can raise their hand and share their thinking with the class?

👥 **STUDENTS DO:** Raise their hands.

TEACHER DO: Call on students to explain their thinking. Use the drawing that is on the board to demonstrate how to count the remaining figs.

👥 **STUDENTS DO:** Selected students explain their strategies and thinking process.

3. TEACHER SAY: Wonderful work using the problem-solving strategy of drawing pictures. Today we are going to play our Math Is Fun game again. We will practice subtraction, or taking numbers away, as we did earlier but without the number lines. First, I will hand out your tools. Today we will be using counters and game cards.

TEACHER DO: Hand out counters, keeping one set to model.

TEACHER SAY: We will practice first. If I say 2 less than 5, you will first count out 5 _____ (name of counting tool). Remember to touch each counter as you say the number and move it into a separate pile.

TEACHER DO: Count out 5 counters. Touch each one as you say its name and move it into a separate pile.

TEACHER SAY: 1, 2, 3, 4, 5. Now I have a group of 5 _____ (name of counters.) My problem says 2 less than 5. Do I need to put two more into my group, or do I need to take two away? Tell your Shoulder Partner what you think.

👥 **STUDENTS DO:** Talk to their partners.

TEACHER SAY: If you think I need to add 2 more _____ (name of counters), please touch your head. If you think I need to take 2 away, please touch your nose.

👥 **STUDENTS DO:** Respond to the question.

TEACHER SAY: Since my problem says 2 less than 5, I will take 2 away. The word less is a clue that I need to take away. Now I will remove two _____ (name of counters) from my pile of 5.

TEACHER DO: Remove two.

TEACHER SAY: My final step is to count the ones I have remaining to see what is 2 less than 5.

TEACHER DO: Count the 3 remaining. Touch each counter as it is counted.

TEACHER SAY: I am left with 3 _____ (name of counters.) Now it is your turn to practice. If my problem says I have 2 less than 6, what would you do first?

TEACHER DO: Walk students through the problem. First, have them create the number and then remove the corresponding amount.

Note to the Teacher: If this is challenging for the students, slow down and practice it several times. If they understand, move on to the game more quickly.

2. TEACHER SAY: Now we are ready to play the Math Is Fun game. In our last class, we added when we played the game. Today, we will subtract. It will be just like in our last class, but we will be talking about subtraction.

TEACHER DO: Hand out the game cards and review how to play. Teacher says a problem, students use beans to solve, and the corresponding number on the game board is covered. Remember to go over rows, columns, and moving diagonally. Remind students that they need 5 in a row to win. When they have 5 in a row, they will yell, "Math is fun."

TEACHER SAY: Are we all ready to play?

TEACHER DO: Play game as done in **Lesson 79**, beginning with the following questions and then creating more until a student has five in a row:
- 1 less than 10
- 2 less than 5
- 2 less than 8
- 3 less than 5
- 1 less than 1

👥 **STUDENTS DO:** Use their counters to figure out the number and also to mark it on their game boards.

TEACHER DO: Continue playing the game for multiple rounds.

TEACHER SAY: You all have worked so hard today on subtraction. I will use the Calling Sticks to pick two student volunteers. The first will collect the counters and the second will collect the game boards.

TEACHER DO: Call on two student helpers.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share I would like you use your fingers to answer the questions I am going to give you. Please hold up your fingers when you know the answer. What is 1 less than 4? Please hold up the number on your fingers.

STUDENTS DO: Hold up 3 fingers.

TEACHER SAY: What is 2 less than 8? You will need 2 hands for this problem.

STUDENTS DO: Hold up 6 fingers.

Note to the Teacher: This Share is a great informal assessment of students' understanding. Watch how they think about the problems. Look to see if they are using their fingers as tools to help them.

TEACHER SAY: Great work today learning about subtraction, or taking away, numbers.

KINDERGARTEN II

Mathematics

Chapter 3

Lessons 81-90

Lessons 81-90

COMPONENT	DESCRIPTION	TIME
Calendar and Movement	During this daily routine, students develop number sense, calendar sense, early place value concepts, counting fluency, and problem-solving skills. Students explore quantity and practice counting through patterns and movement.	15-20 minutes
Learn	During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction, and practice.	25-30 minutes
Share	During this daily routine, students develop their ability to express mathematical ideas by talking about their discoveries, using math vocabulary, asking questions to make sense of learning tasks, clarifying misconceptions, and learning to see things from other students' perspectives.	5-10 minutes

Learning Indicators

Throughout this chapter, students will work toward the following learning indicators:

COUNTING AND CARDINALITY
- Identify the number of objects in familiar groupings without counting (e.g., number of dots on a side of dice, numbers on playing cards).
- Use ordinal numbers (e.g. first, second, third) to describe objects up to tenth.

OPERATIONS AND ALGEBRAIC THINKING
- Represent addition and subtraction with objects; fingers; mental images; drawings; sounds; acting out situations; or verbal explanations, expressions, or equations.
- Add or subtract within 20 using strategies such as
  - Using objects or drawings to represent a problem.
  - Decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1).
  - Finding the number that makes 10 when added to any number 1-9.
- Fluently add and subtract within 10.

MEASUREMENT
- Recognize different units of money, including 1 Egyptian pound, 5 pounds, 10 pounds, 20 pounds.

GEOMETRY:
- Describe objects in the environment using names and shapes.
- Correctly use terms such as above, below, beside, in front of, behind, and next to.
- Correctly name two-dimensional shapes (circle, triangle, square, rectangle).
- Compose larger shapes by combing simple shapes.
- Identify shapes as either flat or solid (building to understanding of two-dimensional and three-dimensional shapes).

LESSON	INSTRUCTIONAL FOCUS
81	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 51. • Identify 1 LE. • Count using 1 LE notes. • Apply strategies to solve addition problems.
82	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 52. • Identify 1 LE. • Count using Egyptian pounds. • Apply strategies to solve addition problems.
83	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 53. • Count using Egyptian pounds. • Represent addition using Egyptian pounds.
84	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 54. • Identify a 5 LE note. • Understand that there are 5 ones in a 5 LE note. • Represent subtraction using Egyptian pounds.
85	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 55. • Compare and contrast the 1 LE and 5 LE notes. • Apply strategies to solve addition problems involving money.
86	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 56. • Count combinations of 1 LE and 5 LE notes. • Apply strategies to solve addition problems involving money.
87	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 57. • Identify the 10 LE note. • Compare and contrast the 1 LE, 5 LE, and 10 LE notes. • Demonstrate understanding how many ones and fives are in a 10 LE note. • Subtract within 10 using objects and drawings.

88

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 58.
- Count by tens using 10 LE notes.
- Subtract within 10 using objects and drawings.

89

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 59.
- Identify the 20 LE note.
- Determine how many ones, fives, and tens are in a 20 LE note.
- Add within 20 using objects and drawings.

90

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 60.
- Determine how many 5 LE notes are in a 20 LE note.
- Add within 20 using objects and drawings.

Chapter Preparation

Note to the Teacher: The following items will be used daily in some form throughout the rest of this chapter and into the next. Careful preparation of the items in advance is necessary for successful implementation of daily lessons.

- Gather enough Egyptian pound notes or pretend currency in 1, 5, and 10 denominations so that small groups of students can count and identify the notes. You will need approximately ten 1 LE notes and two 5 LE notes per student. For demonstration, you will need an additional ten 1 LE notes, ten 5 LE notes, ten 10 LE notes, and one 20 LE note.

- For **Lesson 81**:
  - Create a gallery of 10 items students can "buy." The gallery can be on a piece of chart paper and will remain up in the classroom for several days. The items may be shown as wrappers, drawings, advertisements from newspapers, or any other visual that will allow students to see what they will be "purchasing." Gallery items should cost between 1 LE and 10 LE. Label the price of each object clearly. You will also use the poster in **Lesson 82**, where students will be combining these items for purchase in combinations that equal 10 LE or less.
  - One 1 LE note per group of three or more students.

- For **Lesson 82**:
  - Gather enough 1 LE notes (play money or photocopies) so that groups of three or more students have 10 LE.
  - Prepare a poster for a **Venn Diagram** to highlight norms for successful group work. Make the categories for responses: Sounds Like, Looks Like. Write the following phrases on sticky notes or strips of paper that can easily be attached to the **Venn Diagram**:
    * Take turns talking
    * Eyes on the speaker
    * Still bodies
    * All ideas are respected
- For **Lesson 83**: Gather up to 31 one-pound notes (play money or photocopies). During Calendar Math, from this instructional day on, you will demonstrate counting money with student help. Students will learn to count out the exact number of Egyptian pounds to represent the date. For example, if it is the eighth day of the month, students will use eight 1 LE

notes to buy the date. After **Lesson 85**, incorporate 5 LE notes (if needed for the date) into the activity. For example, the eighth day of the month could be bought for eight 1 LE notes or one 5 LE note and three 1 LE notes. At **Lesson 87**, include the 10 LE note, and at **Lesson 89**, you may include the 20 LE note, if needed, to represent the date. Keep this set of notes to use as a teacher demonstration for Calendar Math in each successive lesson.

- For **Lesson 84**: Gather sets of 10 objects to use as counters. Decide if you will have students work alone, thereby needing 10 counters for each student, or have students work in pairs or small groups.

- For **Lesson 85**: One 1 LE note and one 5 LE note per group of three or more students.

- For **Lesson 86**: Prepare a set of envelopes (one per pair or group of students) labeled with a different letter on the front of each as an identifier. Place a combination of 1 LE and 5 LE notes (play money or photocopies) in each envelope. Create a list noting the amount of money in each envelope (e.g., A – 6 LE, B – 9 LE). Combinations should vary and not exceed a value of 10 LE.
  - Prepare a sample envelope for the teacher with one 5 LE and two 1 LE notes to model counting.
    * Prepare a **Ten Can** that contains a set of objects numbered from 0 to 10. Objects can be rocks, cards, or sticks. Numbers should be easily visible to students. Objects will be drawn randomly in games and activities.

- For **Lesson 87**: Gather sets of 10 objects to use as counters (one per student and one for the teacher). One non-transparent cup per pair of students.

- For **Lessons 89 and 90**: Prepare game cards for Spill the Beans (See Spill the Beans Game Card Blackline Master). Create sets of 22 dried beans (one set per pair of students). Two of the beans will be used as game markers, while the remaining 20 will be used as counters. Consider painting the two marker beans a different color or using two types of beans.

Teaching Strategies Used

See pages 3-5 of this guide for detailed instructions.

- **Shoulder Partner**
- **Hands Up, Pair Up**
- **Calling Sticks**
- **Venn Diagram**
- **Wait Time**
- **Zoo Can**
- **Popcorn**
- **Role Play**
- **Model**
- **Fishbowl**
- **Turn and Talk**
- **Thumbs Up**

Materials Used

Calendar math area

Math journal and pencil

Sets of play money (1 LE, 5 LE, 10 LE, 20 LE)

Chart paper

Cups (non-transparent)

Spill the beans game card
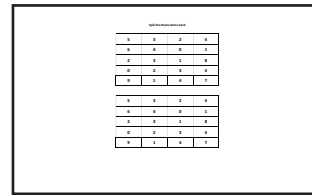
Beans as counters

Envelopes

Sets of counters

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 51.
- Identify 1 LE.
- Count using 1 LE notes.
- Apply strategies to solve addition problems.

- Add
- Pounds

- Calendar Math Area
- Ten frame
- Board space or chart paper labeled: What We Can Buy with Money
- Chart paper with wrappers, drawings, or images for items that cost less than 10 LE, labeled with prices

LESSON PREPARATION FOR THE TEACHER

- Prepare board space or a chart paper labeled: What We Can Buy with Money.
- Display chart paper with items that cost less than 10 LE. Include labels with prices. (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 51.

3. TEACHER DO: Prepare for Movement Math.

TEACHER SAY: Today for Movement Math we will pull an animal out of the Zoo Can and count backward from 20. I will use a Calling Stick to choose a volunteer to point to the numbers on the hundreds chart while we count.

TEACHER DO: Pull a **Calling Stick** and ask the student to point to each number as the students count. Pull a stick from the **Zoo Can** and have students count backward while acting like the animal.

STUDENTS DO: Count backward from 20 to 1.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today we are going start learning about money. I want you to think about what types of things we can buy with money. Remember what we have discussed about the market. When you have an idea, please give me a **Thumbs Up**.

STUDENTS DO: Think and give a **Thumbs Up** when they have an idea.

TEACHER SAY: I am going to call on a student to share, and I will draw and write their idea on the chart paper. First, I will call on _____ (student's name) and then they will **Popcorn** to another student. We will see how many different ideas we can write down.

TEACHER DO: Call on the first student. Write and draw their idea on chart paper.

STUDENTS DO: Give suggestions to the teacher while they **Popcorn** to other volunteers.

2. TEACHER SAY: Those are all wonderful ideas. Today I have brought in some one pound notes. When we write one pound, we write it like this.

TEACHER DO: Write 1 LE on the board. The LE stands for Egyptian pounds. Hold up a 1 LE note.

TEACHER SAY: You and your group are going to have a chance to look at the 1 LE note together. First, we are going to get into groups of three. We are going to get into our groups by playing **Round Up**. Do you remember **Round Up**? I will say, "round up three," and you will quickly and quietly form a group of three and hold hands. If everyone is in a group of three and you are leftover, you get to say, "Cannot round up me." Then I will help any extra students find a group. Ready? Okay, round up three.

STUDENTS DO: Gather into groups of three, holding hands in a circle.

TEACHER DO: If any students are left remaining after the groups are made, place them into a group of two.

TEACHER SAY: Great job. Now please sit down in a circle with your group with your hands in your laps. I will hand each group a 1 LE note and put it in the middle of your circle with the same side facing up for each group. Everyone will have one minute to look at the note without talking. Make sure you look carefully because we will use all that you see to play a game.

TEACHER DO: Hand out the notes and give the students one minute to carefully examine them.

TEACHER SAY: Now, we are going to play a game called I See Very Clearly. I will start by giving you a clue about something I see on the 1 LE note. I see very clearly, with my little eye, something that looks like a circle. Can you see where it is? Raise your hand if you see something that looks like a circle on the note.

STUDENTS DO: Raise their hands.

TEACHER SAY: Can you point to the circle on your group's note? Make sure everyone in your group can see where the circle is.

STUDENTS DO: Point to the circles on the notes.

TEACHER SAY: Great. Now, I see very clearly, with my little eye, a building. Raise your hand if you see something that looks like a building on the note.

TEACHER DO: Continue to play this game with both the obverse and reverse of the bill. Students can also take a turn.

TEACHER SAY: Great job looking closely at the 1 LE. First, I will collect the money, and second you may return to your seats.

TEACHER DO: Collect the money.

👥 **STUDENTS DO:** Return to their seats.

3. TEACHER SAY: Now, we are going to work on a story problem using our strategy of Role Playing. I will use our Calling Sticks to pick two volunteers to pretend to do some shopping.

TEACHER DO: Choose two names.

TEACHER SAY: _____ (Student's name) and _____ (student's name), please come to the front of the class. I have collected some things that can be purchased, or bought, and put them on this poster along with how much they cost.

TEACHER DO: Point to all of the items on the poster and their cost.

TEACHER SAY: Each one of you pick an item from the poster you would like to buy and tell the class.

👥 **STUDENTS DO:** Selected students choose an item and tell it to the class.

TEACHER SAY: _____ (Student's name) would like to buy a/an _____ (name of item). Looking at the poster, how much will _____ (name of item) cost? Can you all shout it out?

👥 **STUDENTS DO:** Shout out the cost.

TEACHER DO: Repeat above with the second student.

TEACHER SAY: Great. They want to buy a _____ (name of item) and a _____ (name of item). If the first item costs _____ (number of pounds) and the second item costs _____ (number of pounds), how many pounds will they need all together? Can you turn and tell your Shoulder Partner how we might figure out the answer to this problem? Volunteers, you may return to your seats.

👥 **STUDENTS DO: Turn and Talk.**

TEACHER SAY: Who has some strategies to share that we might use? Please raise your hand if you would like to share.

👥 **STUDENTS DO:** Raise their hands.

TEACHER DO: Call on different volunteers to share. Then practice different strategies suggested.

Note to the Teacher: Refer to the Story Problem Strategies poster made in Chapter 2. The poster should already include role play or acting it out and drawing a picture. Make sure that one strategy is to have each volunteer show on their fingers how much their item costs and then to add them together. Other suggestions may include: counters or using the money. You may ask the class, "How many of you also thought of that?" as a way to encourage more participation for reluctant students.

TEACHER SAY: We are going to double check our work. First, please help me count the money that each item costs. _____ (Name of item) is _____ (number of pounds). Help me count out _____ (number of pounds).

TEACHER DO: Count out the amount with 1 LE notes, creating a pile. Repeat the process with the second item, creating a second pile.

TEACHER SAY: Since we were wondering how much money they spent in all, we now need to add these two piles together. Please help me count.

TEACHER DO: Count out the first pile and then continue counting on as the second pile is counted.

TEACHER SAY: Great, we were correct, they spent (number of pounds) in all.

Share (5-10 minutes)

Directions

1. TEACHER SAY: **For Share today, you will work with your Shoulder Partner. Each one of you will pick an item you would like to buy. Your challenge is to figure out how much the items would cost if we add them together. Use one of the strategies on our Story Problem Strategies chart.**

STUDENTS DO: Talk to their partners. Select two items to buy and figure out the cost using one of the strategies on the Story Problem Strategies chart.

TEACHER DO: Call on several groups to share. Selected students model their strategies and explain their thinking.

Lesson 82 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 52.
- Identify 1 LE.
- Count using Egyptian pounds.
- Apply strategies to solve addition problems.

LESSON PREPARATION FOR THE TEACHER

- Prepare **Venn Diagram** on the board or on chart paper for discussion on group work norms. Label the diagram and prepare prewritten phrases. (See Chapter Preparation for additional instructions.)

KEY VOCABULARY

- Add
- Equals
- Pounds

MATERIALS

- Calendar Math Area
- Ten frame
- Chart paper with wrappers, drawings, or images for items that cost less than 10 LE, labeled with prices
- Math journals and pencils
- 10 pounds in 1 LE notes: enough for each group of three students to have their own
- **Venn Diagram** titled "Good Group Work" on the board or on chart paper showing "Looks Like" and "Sounds Like"
- The following phrases prewritten on sticky notes or strips of paper that can easily be attached to the **Venn Diagram**:
  - Take turns talking
  - Eyes on the speaker
  - Still bodies
  - All ideas are respected

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in Ten Frame Activity. Count by ones and tens to 52.

3. TEACHER DO: Prepare for Movement Math. Count backward as in **Lesson 81**.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Who can remind us what we learned in our last math class? Can you turn and tell your Shoulder Partner what we learned?

STUDENTS DO: Turn and Talk to their Shoulder Partner.

TEACHER SAY: Today we are going to continue to learn about money.

TEACHER DO: Point to the poster of items and their costs.

TEACHER SAY: Do you remember this poster of items and how much they cost? Let's review

what is on the board and their prices. I will call on one student and then that student will **Popcorn** to the next student until we have identified all of the items on the board and how much they cost.

TEACHER DO: Select a student to go first.

👥 **STUDENTS DO:** The first student names an item and its cost, then **Popcorns** to another student. Process continues until all items have been reviewed.

TEACHER SAY: Today, we will be working in groups. Before we start our math work, let's talk about what group work looks like and sounds like.

TEACHER DO: Gesture to the **Venn Diagram**.

TEACHER SAY: The heading of this Venn Diagram is: Good Group Work. The categories are Looks Like and Sounds Like. Remember, the space in the middle is for something that could be in both categories. I have examples for the categories and I need you to help me sort them into Looks Like or Sounds Like or both. My first example is: Uses quiet voices. Where should that go? Is that what good group work looks like or sounds like? Raise your hand and share your thinking.

👥 **STUDENTS DO:** Raise their hands. Selected student answers: Sounds Like.

TEACHER DO: Put the sticky note with "use quiet voices" in the Sounds Like category on the **Venn Diagram**. Continue with the following statements, allowing students to discuss which category they belong in and how they can be achieved. Examples are given after each statement if students need help formulating ideas.

Take turns talking: Each group starts with one speaker. When that speaker is finished, he/she calls on another student to share who has not previously shared. Or, students move around in a circle to share.

Eyes on the speaker: Remind students that looking at the speaker lets him/her know they are being heard. You listen with your eyes by looking at the person talking.

Still bodies: It is respectful to keep your bodies still so that the speaker knows you are paying attention to them.

All ideas are respected: Kind words are used during group work, and we listen respectfully. If we disagree, we do it kindly by saying things like, "Have you thought about," instead of, "You are wrong." Students may need to practice phrases to use in case they disagree specific to their classroom culture.

2. TEACHER SAY: Excellent job sorting and sharing what good group work should look and sound like. Now you will all have a chance to practice. I will give you and your group 10 LE in 1 LE notes. Your task is to work together as a group and make a combination of items you can buy from the poster for 10 LE or less. For example, you may choose _____ (name of item) for 6 LE (or whatever price is listed) and _____ (name of item) for 2 LE (or whatever price is listed). If we had 10 LE, would we have enough to buy those two items? Let's check with our money. First, I will count out 6 LE.

TEACHER DO: Count out 6 one-pound notes and place in a pile.

TEACHER SAY: Then, I will count out 2 LE.

TEACHER DO: Count out 2 one-pound notes and place in a separate pile.

TEACHER SAY: I still have money left over and that is fine. Let's now take the 6 LE pile and the 2 LE pile and add them together to see how much I spent in all.

TEACHER DO: Count the two piles together, touching each bill as it is counted.

TEACHER SAY: I spent 8 LE and have 2 LE remaining. That is one combination I could make. In my math journal, I will draw a picture of _____ (name of item) and _____ (name of item). Underneath I will write how much they cost and then I will show my math. I will write 6 + 2 = 8.

TEACHER DO: Model how to do this on the board. Point to the symbols as you explain them.

TEACHER SAY: The sign plus means to add or put together. The sign equals means equals. It is telling us that 6 plus 2 is the same thing as 8. Can someone look at the poster and try to make another combination of items that will cost 10 LE or less? Please raise your hand if you would like to share.

STUDENTS DO: Raise their hands. Selected students share their combination.

TEACHER DO: Repeat the process with a student example.

TEACHER SAY: Now it is your turn to work with your group and create combinations. You can write and draw in your math journal on the page for Lesson 82. Remember what good group work should look and sound like. I will use the **Calling Sticks** to put you in groups of three. Then I will tell you where in the classroom I would like your group to work. When you are with your group and your math journals, I will hand out the money. Remember, you need to both draw your items and write your math problems.

TEACHER DO: Call out and sort students into groups. Hand out math journals. Then hand out money.

STUDENTS DO: Work in small groups to figure out two items that cost 10 LE or less and document their ideas in their math journals.

TEACHER DO: Walk around the room, assessing students on their ability to work as a group, record their thinking, and create combinations of 10 LE or less.

Share (5-10 minutes)

Directions

1. TEACHER SAY: While you are still in your groups, I would like you to think about how well you worked together. If you think you and your group listened, took turns, and were respectful to each other, in a moment you will hold up three fingers, but not right now. If you think you were able to do some of those things, in a moment you will hold up two fingers. If you think your group needs to work harder, in a moment you will hold up one finger. This is just for me to know, so please close your eyes and put your heads down.

STUDENTS DO: Close their eyes and put their heads down.

TEACHER SAY: Now please hold up your fingers to let me see how your group work went today. Remember, it is okay if it was not perfect. We are all learning.

STUDENTS DO: Hold up their fingers, with heads down.

TEACHER SAY: Wonderful work. Sit up. Now please raise your hand if your group would like to share what combination of items you used.

STUDENTS DO: Share their work.

TEACHER SAY: You all tried really hard today. Nice job working together and working with money.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 53.
- Count using Egyptian pounds.
- Represent addition using Egyptian pounds.

KEY VOCABULARY

- Add
- Equals
- Pounds

MATERIALS

- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE notes

LESSON PREPARATION FOR THE TEACHER

- Gather up to 31 1 LE notes (play money or photocopies). (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 53.

3. TEACHER DO: Prepare for Buy the Date.

TEACHER SAY: Today we are going to add something new to our calendar routine. It is called Buy the Date. We have been learning about our money: the Egyptian pound. Today we are going to use the 1 LE note to Buy the Date. Today is the _____ (ordinal number) day of _____ (month). Since it is the _____ (ordinal number) day, we will count out _____ (same number as date) in 1 LE notes. Help me count out the money to match the date.

TEACHER DO: Count out by ones the same number of notes as the date. For example, if it is the eighth day of the month, count out eight 1 LE notes.

Note to the Teacher: As students learn about the 5 LE, 10 LE, and 20 LE notes, they will expand on Buy the Date. Take the time to make sure all students understand that the number of notes must equal the date. Praise students for their ability to make the date in any form. For example, eight 1 LE notes or one 5 LE and three 1 LE are both valid thinking.

STUDENTS DO: Help the teacher count out notes to match the date.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Let's take a moment to share with our Shoulder Partner what we worked on in our last math class. Can you please Turn and Talk to your partner?

STUDENTS DO: Turn and Talk with their partners.

2. TEACHER SAY: Today we are going to work in groups again to create different combinations of items that are 10 LE or less. Do you remember how in yesterday's class you came up with one combination? Today we are going to see how many different combinations each group can create. Before we begin, who can help us remember what good group work looks and sounds like? Please raise your hand if you can remember something we talked about in our last class and wrote down on our poster.

STUDENTS DO: Raise their hands.

TEACHER DO: Call on students to share. Read the expected behaviors to the class if they cannot remember them.

TEACHER SAY: Is there one group from yesterday who felt like they did a great job of using our group work behaviors? Please touch your nose if you think your group worked well together.

STUDENTS DO: Touch their noses.

TEACHER SAY: _____ (Names of students in group) will come to the front of the room and model what good group work looks and sounds like. Modeling is when someone shows us exactly how to do something. The rest of us will gather around them to watch. We call this Fishbowling because we will watch them like they are fish in a bowl.

STUDENTS DO: Group comes to the front of the room.

TEACHER SAY: Now, let's all gather around them. Our group is going to pretend that they are coming up with another combination of items to add to their math journals that cost 10 LE or less. We will silently watch as they show us exactly what good group work should look and sound like.

STUDENTS DO: Model how to work as a group.

TEACHER DO: Coach students through the process. Hand out math journals.

TEACHER SAY: Wonderful job. Let's all give our volunteer group a round of applause. Now, you will take out your math journals and open them to the page for Lesson 83. See how many different combinations your group can make of items that are 10 LE or less. Work with the same groups and in the same places as yesterday. When you are sitting with your group, I will bring around your money. Remember to write and draw all of the combinations in your math journals.

STUDENTS DO: Work in small groups to figure out different combinations of items that are 10 LE or less. Each idea should be documented in their math journals.

TEACHER DO: Walk around the room, assessing children on working as a group, recording their thinking, and creating combinations of 10 LE or less.

Note to the Teacher: This is a good time to sit close to you groups who are having difficulty with the math or with following directions. Provide more directed help as needed. You may note students' developing understanding from the previous day's journal entry.

Share (5-10 minutes)

Directions

1. TEACHER SAY: While you are still in your groups, I would like you to think about how well you worked together just as we did yesterday. If you think you and your group listened, took turns, and were respectful to each other, in a moment you will hold up three fingers, but not right now. If you think you were able to do some of those things, in a moment you will hold up two fingers. If you think your group needs to work harder, in a moment you will hold up one finger. This is just for me to know, so please close your eyes and put your heads down.

STUDENTS DO: Close their eyes and put their heads down.

TEACHER SAY: Now please hold up your fingers to let me see how your group work went today. Remember, it is okay if it was not perfect. We are all learning. Sit up all the way. Now, please count how many different combinations you and your group made.

TEACHER DO: Give **Wait Time** while students count.

TEACHER SAY: If you and your group had at least one combination, hold up your math journals.

STUDENTS DO: Hold up math journals.

TEACHER SAY: If you and your group had at least two combinations, hold up your math journals.

STUDENTS DO: Hold up math journals.

TEACHER DO: Continue this until the group with the most combinations still has their math journals in the air.

TEACHER SAY: You all worked really hard today. Nice job working together and working with money. We can put away our math journals.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS
Students will: • Participate in Calendar Math activities. • Count by ones and tens to 54. • Identify a 5 LE note. • Understand that there are 5 ones in a 5 LE note. • Represent subtraction using Egyptian pounds.	• Add • Equals • Minus • Pounds • Subtraction	• Calendar Math Area • Ten frame • Egyptian pounds for Buy the Date: 1 LE notes • Sets of 10 counters (one set per student, pair of students, or small group of students and one set for the teacher) • Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- Preview the lesson and decide if you will have students work independently, in pairs, or in small groups. Then, prepare materials accordingly. (This lesson describes the students working independently. If needed, change the wording to fit the grouping you selected.)
- Gather sets of 10 counters (one set per student, pair of students, or small group of students).

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 54.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Let's take a moment to share with our Shoulder Partner what we worked on in our last math class. Can you please Turn and Talk to your partner?

STUDENTS DO: Turn and Talk with their partners.

2. TEACHER SAY: Today we are going to work on using what we have learned about money to practice subtraction. Remember, subtraction is when we take a part away from a whole. Let's practice by visualizing. Everyone please close your eyes.

STUDENTS DO: Close their eyes.

TEACHER SAY: Pretend that you have 10 LE. You walk into a sweet shop and see a lollipop you want to buy. The lollipop costs 2 LE. You pay the owner of the shop. How much money do you have left? Please open your eyes.

STUDENTS DO: Open their eyes.

TEACHER SAY: If you think you have more than 10 LE, please touch your nose.

STUDENTS DO: Touch their noses if they think they would have more than 10 LE.

TEACHER SAY: If you think you have less than 10 LE, please touch your chin.

STUDENTS DO: Touch their chins if they think they would have less than 10 LE.

TEACHER SAY: Who can explain their thinking? Please raise your hand if you can share why you think the answer is either greater than 10 LE or less than 10 LE.

STUDENTS DO: Raise their hands. Selected students share their thinking.

TEACHER DO: Listen to how students visualized the problem. Encourage students to share, even if they got the incorrect answer, so they can learn from their mistakes.

TEACHER SAY: Let's double check our answer by using our counters.

TEACHER DO: Gather 10 counters.

TEACHER SAY: Each one of these counters represents 1 LE. Since there are 10 LE in the problem, I will count out 10 counters.

TEACHER DO: Count out 10 counters, touching each one while saying the number.

TEACHER SAY: The lollipop cost 2 LE. I will take out 2 of the counters to pay the shopkeeper.

TEACHER DO: Count out 2 counters and move them to a different pile.

TEACHER SAY: Now I will count the counters remaining to see how many I have left.

TEACHER DO: Count out the remaining 8 counters, touching each one while saying the number.

TEACHER SAY: Then I will draw a quick sketch of a lollipop in my math journal and write out my math problem underneath.

TEACHER DO: Draw a lollipop.

TEACHER SAY: 10-2 = 8. The minus sign means to take away.

TEACHER DO: Write the equation on the board.

TEACHER SAY: Now, I will hand out your math journals. Turn to the page for Lesson 84. You will practice sketching the item to buy and writing the math problem underneath. Please start with the one we did together on the next page of your math journal. As you are working, I will also hand out your 10 counters.

TEACHER DO: Hand out math journals and counters.

STUDENTS DO: Copy the teacher's work from the board so they have an example problem in their math journals.

TEACHER SAY: Now that you all have this problem written down in your journals as an example, I will give you a new problem. Put your hands in your lap and close your eyes so you can visualize. Pretend you go into the market with 10 LE. You buy a banana for 3 LE. How much money do you have left? Open your eyes and, if you need to, use your counters to solve the problem.

STUDENTS DO: Count out with their counters.

TEACHER SAY: When you think you know the answer, please draw it and write it down in your math journal.

STUDENTS DO: Sketch and write the equation.

TEACHER DO: Circulate around the room and note which students need to use the counters to help them and which students do not. Check to see if they are able to write the equation properly. If time allows, give them other problems to work through. When finished, collect counters and journals.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Wonderful job today working on subtraction. Can you turn and tell your Shoulder Partner what the word subtraction means?

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: Can you think of your very own shopping story problem? Raise your hand if you would like to try this challenge.

STUDENTS DO: Raise their hands.

TEACHER DO: Call on students to share. Help them with the steps if they become confused and solve the problems as a class.

TEACHER SAY: Wonderful work today with subtraction. You are all ready to help your families with the shopping.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 55.
- Compare and contrast the 1 LE and 5 LE notes.
- Apply strategies to solve addition problems involving money.

KEY VOCABULARY

- Add
- Equals
- Pounds
- Value

MATERIALS

- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE notes
- 1 LE and 5 LE notes (one each per group of three students
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- Cover five numbers on the hundreds chart between 1 and 30 for the students to determine.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 55.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Can you turn and tell your Shoulder Partner what we worked on in our last class?

STUDENTS DO: Turn and Talk to their partners.

2. TEACHER SAY: Today we are going to continue learning about money. We are going to examine the 5 LE note.

TEACHER DO: Show students five 1 LE notes and one 5 LE note.

TEACHER SAY: These two things, my stack of five 1 LE notes and this single 5 LE note have the same value. They are both worth 5 LE. It might seem strange because there are more in this pile.

TEACHER DO: Gesture to the pile of 1 LE notes.

TEACHER SAY: But they both have the same value. Value is what something is worth. If I wanted to buy some cheese at the market and it costs 5 LE, I could either use this one 5 LE note or five of these 1 LE notes. Your first task today is to examine, or closely look at, the 5 LE note. Just like we did before, we will start by playing Round Up and then we will work in our small groups to play I See Very Clearly. Ready? Round up three.

STUDENTS DO: Gather into groups of three, holding hands in a circle.

TEACHER DO: If any students are left remaining, place them into a group.

TEACHER SAY: Great job. Now please sit down in a circle with your group with your hands in your lap. I will put a 5 LE note in the middle of each circle with the same side facing up for each group. Everyone will have one minute to look at the note without talking. Make sure you look carefully because we will use all that you see to play a game.

TEACHER DO: Hand out the notes and give the students one minute to carefully examine them.

TEACHER SAY: Now, we are going to play the game called I See Very Clearly. I will start by giving you a clue about something I see on the 5 LE note. I see very clearly, with my little eye, something that looks like a circle. Can you see where it is? Raise your hand if you see something that looks like a circle on the note.

STUDENTS DO: Raise their hands.

TEACHER SAY: Can you point to it on the note in your circle? Make sure everyone in your group can see where the circle is.

STUDENTS DO: Point to the circle on the note.

TEACHER DO: Continue to play this game with both the obverse and reverse of the bill. Students can also take a turn.

TEACHER SAY: Great job looking closely at the 5 LE note. Now I will hand out 1 LE notes. I want you and your group to carefully examine how they are similar, or what they have in common, and how they are different.

TEACHER DO: Hand out the money.

STUDENTS DO: Compare and contrast both bills.

TEACHER DO: Give **Wait Time** for students to look and think.

TEACHER SAY: Who can raise their hand and tell us something they noticed that was the same about the two notes? I will call on the first student and then you can Popcorn to someone else.

STUDENTS DO: Raise their hands and share and then choose other students to share.

TEACHER DO: Listen to students until all ideas are shared.

TEACHER SAY: Now let's do the same thing, but this time share what you notice is different about the notes. I will call on the first student and then you can Popcorn to someone else.

STUDENTS DO: Raise their hands and share and then choose other students to share.

TEACHER DO: Listen to students until all ideas are shared. Then ask students to move back to their seats.

Share (5-10 minutes)

Directions

1. TEACHER SAY: For Share today, I would like you to imagine you want to buy a toy that costs 5 LE. Think of two different ways you could pay for the toy using 1 LE and 5 LE notes. Turn and tell your Shoulder Partner what you think.

STUDENTS DO: Share their thinking with their partners.

TEACHER SAY: Would someone like to share with the class? Please raise your hand if you can tell us two different ways to pay for a toy that costs 5 LE using 1 LE and 5 LE notes.

STUDENTS DO: Raise their hands and share that they could use one 5 LE note and five 1 LE notes.

TEACHER SAY: Now, here is a challenge question. Can you think of two different ways to make 6 LE using 1 LE and 5 LE notes? Turn and tell your Shoulder Partner what you think.

STUDENTS DO: Share their thinking with their partners.

TEACHER SAY: Would someone like to share with the class? Please raise your hand if you can tell us two different ways to make 6 LE with 1 LE and 5 LE notes.

STUDENTS DO: Raise their hands and share that you could use one 5 LE note and one 1 LE note or six 1 LE notes.

TEACHER SAY: Excellent job today.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 56.
- Count combinations of 1 LE and 5 LE notes.
- Represent addition using symbols and addition sentences.

KEY VOCABULARY

- No new vocabulary; reinforce existing vocabulary.

MATERIALS

- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE and 5 LE notes
- Math journals and pencils
- Sets of 10 counters (as needed)
- Sets of envelopes (one per pair or group of students) with differing combinations of 1 LE and 5 LE notes

LESSON PREPARATION FOR THE TEACHER

- Prepare sets of envelopes with combinations of 1 LE and 5 LE notes for students to count. Totals should not exceed 10 LE. Envelopes do not have to contain equal amounts. The example envelope has one 5 LE and two 1 LE notes. (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed. When the date is 5 or higher, Buy the Date in two ways: using 1 LE notes and using 5 LE notes.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 56.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Who can raise their hand and remind us what we worked on in our last class?

STUDENTS DO: Raise their hands and share their learning with the class.

2. TEACHER SAY: Today we are going to work on combining, or adding, 1 LE and 5 LE notes. I have a stack of envelopes and inside each one is a combination of notes.

TEACHER DO: Show students the envelopes.

TEACHER SAY: There is a letter on the front of each envelope. You and your Shoulder Partner will open up your math journal and write down the letter first. Then you will carefully take the money out of the envelope and count how much you have.

TEACHER DO: Pull the money out of the envelope and count it aloud. This envelope should contain 7 LE in the form of one 5 LE note and two 1 LE notes.

TEACHER SAY: I will always count my larger number first. I have a 5 LE note and I can hold up my five fingers to help me remember. I also have two 1 LE notes. So, I can hold up two

fingers on my other hand. Now I need to figure out how much money I have in all. Watch as I tap each finger as I count it.

TEACHER DO: Tap each finger down as all seven are counted.

TEACHER SAY: I have 7 LE. In my journal, beside the letter that I drew, I will write the number 7. Then I will carefully put the money back inside the envelope.

TEACHER DO: Put the money back in the envelope.

TEACHER SAY: I will hand each group one envelope. When you receive your envelope, it will have a letter one it. Write down the letter in your journal on the page for Lesson 86. Then count the money in the envelope and write down the number next to the letter. When you are finished, I will help you pass your envelope to another group. Once you have a new envelope, you will do the same thing. If you would like counters, please raise your hand.

TEACHER DO: Hand out math journals and envelopes to partner pairs and counters to those who request them.

STUDENTS DO: Record their counting in their math journals. Raise their hands when they have finished with their envelope.

TEACHER DO: Monitor students' work and take note of whether they count up to the number 5 or if they are able to start with the number 5 and count on. As students finish with their envelopes, help them to pass them to another group. Collect the envelopes when everyone is finished.

Share (5-10 minutes)

Directions

1. TEACHER DO: Take two envelopes for Share.

TEACHER SAY: Let's share our counting strategies. Inside this envelope we have _____ (name the number and denomination of the notes, not the total amount). Who can share how they counted them? I will use a Calling Stick to choose a volunteer.

TEACHER DO: Choose a stick and have a student share their strategy. Repeat the above with the second envelope.

TEACHER SAY: You all did a great job today of counting money. Give your Shoulder Partner a high five.

Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 57.
- Identify the 10 LE note.
- Compare and contrast the 1 LE, 5 LE, and 10 LE notes.
- Demonstrate understanding how many ones and fives are in a 10 LE note.
- Subtract within 10 using objects and drawings.

KEY VOCABULARY
- Equal
- Value

MATERIALS
- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE and 5 LE notes
- 1 LE, 5 LE, and 10 LE notes (enough of each to make 10 LE)
- Sets of 10 counters (10 per student and 10 for the teacher)
- Non-transparent cup (1 per pair of students)

LESSON PREPARATION FOR THE TEACHER

- Gather sets of 10 counters and one non-transparent cup for each pair of students. (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 57.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we learned in our last math class.

STUDENTS DO: Turn and Talk.

2. TEACHER SAY: Today I brought a 10 LE note to show all of you. How many ones make up our ten frame? Can you Whisper your answer aloud?

STUDENTS DO: Whisper: 10.

TEACHER SAY: That is right. Just like there are 10 ones in a ten frame, there are ten 1 LE notes in a 10 LE note. Can you help me count out ten 1 LE notes?

TEACHER DO: Count out ten 1 LE notes to make a stack.

TEACHER SAY: This stack of 1 LE notes has the same value as this one 10 LE note. If I went to the store to buy a bag of apples and it cost 10 LE, I could either pay with this stack of ten 1 LE notes or this 10 LE note. There is another way I can make 10 LE using 5 LE notes. Can you think in your head for a moment? How many fives would I need to make 10? When you have an answer, give me a Thumbs Up.

👥 **STUDENTS DO:** Give a Thumbs Up when they know.

TEACHER SAY: Please touch your nose if you would like to share with the class how you could make 10 LE with 5 LE notes.

👥 **STUDENTS DO:** Touch their noses until they are called on. Share that two fives make 10.

TEACHER SAY: Yes, two fives make a 10. Watch as I make a stack of two fives to equal 10. Now I have a stack of 10 ones, 2 fives, and 1 ten. They are all equal. Remember, equal means the same. I could buy a bag of apples with any of these stacks. They all equal 10 LE.

3. TEACHER SAY: Now, I am going to use the Calling Sticks to have three volunteers come to the front of the classroom.

TEACHER DO: Use the Calling Sticks to pick three students and ask them to come to the front of the classroom.

TEACHER SAY: I want you three to close your eyes. I will hand each of you a different note.

TEACHER DO: Hand each student either a 1 LE, 5 LE, or 10 LE note.

TEACHER SAY: Now, please open your eyes. Look at your note and see if you can find the number on it that tells you its value, or how much it is worth.

👥 **STUDENTS DO:** Look at their notes.

TEACHER SAY: Now, let's see if we can help put you in a line in order from smallest number or amount to largest number or amount. Friends, help them out. Can you show them on your fingers which number is the smallest? Is it 1, 5, or 10? Hold up the smallest number on your fingers.

👥 **STUDENTS DO:** Hold up one finger.

TEACHER SAY: Yes, the 1 LE note is the smallest. The person with the smallest note will stand here.

TEACHER DO: Gesture to a place on the right when facing the class.

👥 **STUDENTS DO:** The student with the 1 LE note moves to the designated place.

TEACHER SAY: Now we have a 5 and a 10 remaining. Friends, can you show on your fingers what the next smallest number is?

👥 **STUDENTS D O:** Hold up five fingers.

TEACHER SAY: Great, the student with the 5 LE note will stand beside, to the left of, the student with the 1 LE note.

👥 **STUDENTS DO:** Move beside student with the 1 LE note.

TEACHER SAY: Finally, what is the biggest note we have? What note has the greatest value? Can you show that number on your fingers?

👥 **STUDENTS DO:** Hold up 10 fingers.

TEACHER SAY: Perfect, the student with the 10 LE note will stand beside, to the left of, the student with the 5 LE note.

STUDENTS DO: Move beside student with the 5 LE note.

TEACHER SAY: Nice. Now they are in order from least to greatest. Students in line, please say the number of your note and hold it up so we can double check.

STUDENTS DO: Say 1, 5, and 10 while holding up their notes.

TEACHER SAY: Good thinking. Please give yourselves a pat on the back. Volunteers, you may return to your seats.

STUDENTS DO: Return to their seats.

TEACHER DO: Collect notes.

4. TEACHER SAY: Today we are going to play a new game called Peek-A-Boo 10. You will play this game with a partner. Can I have a volunteer who would like to Model playing this game with me?

TEACHER DO: Call on a raised hand. Have 20 counters and a cup ready to play.

STUDENTS DO: Volunteer comes to the front of the room.

TEACHER SAY: In order to play this game, you and your partner each need a set of 10 counters. We will line the counters up in a row in front of us.

TEACHER DO: Hand a set of 10 counters to student volunteer and keep one set.

TEACHER SAY: You will also need one cup.

TEACHER DO: Show students the cup.

TEACHER SAY: I will ask my partner to close his/her eyes.

STUDENTS DO: Volunteer closes eyes.

TEACHER SAY: Now, I will hide some of my 10 counters under this cup.

TEACHER DO: Hide 3 counters under the upside-down cup, leaving 7 counters in view.

TEACHER SAY: Now, I will ask my partner to open his/her eyes. He/she needs to figure out how many counters are hiding under my cup. My partner can use his/her set of 10 counters to help solve the problem.

TEACHER DO: Turn to volunteer and ask him/her to try to solve the problem. If the student does not use the counters, **Model** how to count out the 7 that are showing, and then count the remaining ones to figure out how many are under the cup.

TEACHER SAY: Great job. _____ (Student's name) said there should be 3 counters under my cup. Let's check. My partner will say, "Peek-A-Boo, I see you," and lift up the cup.

STUDENTS DO: Volunteer says, "Peek-A-Boo, I see you," and checks the number of counters under the cup.

TEACHER SAY: He/she was right. There are 3 counters under the cup. Now it is my turn to close my eyes and he/she will hide some counters under the cup.

TEACHER DO: Model this a second time, allowing the volunteer to hide the counters.

TEACHER SAY: For our partners in this game, we will do Hands Up, Pair Up. Remember, that means you will walk around the room quietly with one hand raised in the air. When I say, "Stop—Pair Up," you will clap hands together with a nearby student. Anyone with a hand still up needs a partner.

STUDENTS DO: Walk around the room quietly in preparation to pair up.

TEACHER DO: Signal pairing up and make any pairs for remaining students.

TEACHER SAY: Please sit beside your partners and I will hand out sets of counters and cups. There are 20 counters in each cup. Your first job will be to count out two groups of 10, so you each have your own set.

TEACHER DO: Hand out counters and cups.

STUDENTS DO: Play the game.

TEACHER DO: Walk around and make sure students understand how to play the game. Let them play several rounds together.

Note to the Teacher: Note whether students are using their counters, doing the work in their heads, or using an alternative strategy, such as counting on their fingers. If they have an alternative strategy, see if they are counting up from the number of counters seen or if they are subtracting from 10. Encourage subtraction for those who appear ready.

TEACHER SAY: Nice work playing Peek-A-Boo 10 today. Please place all of your counters in the cup and I will collect them.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Who would like to share a strategy that they used today while playing Peek-A-Boo 10? Please touch your nose if you would like to share something with the class.

STUDENTS DO: Touch their noses.

TEACHER DO: Call on several students to share.

STUDENTS DO: Share their strategies, modeling them, if possible

TEACHER SAY: Great work today learning a new game and working on how to make 10. If you have 10 coins, pebbles, or beans at home and a cup, you could show a parent, sibling, or friend how to play this game too.

Lesson 88 Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 58.
- Count by tens using 10 LE notes.
- Subtract within 10 using objects and drawings.

- No new vocabulary.

- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE and 5 LE notes
- Two 10 LE notes
- Sets of 10 counters (one set per student and one set for the teacher)
- Non-transparent cup (one per pair of students)
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 58.

4. TEACHER SAY: Today we are going to use our 10 LE notes to count to 20. I have a challenge question for you. Do any of you think you know how many tens are in 20? Think about it and give me a Thumbs Up if you have an idea.

TEACHER DO: Give **Wait Time**.

STUDENTS DO: Give a **Thumbs Up** when they have an idea. Selected students share their answer.

TEACHER DO: Using the 10 LE notes, count by tens as a class to 20.

Note to the Teacher: If students are ready, move on to how many tens are in 30, 40, 50, 60, 70, 80, 90, and 100.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we learned in our last math class.

STUDENTS DO: Turn and Talk.

2. TEACHER DO: Prepare for Peek-A-Boo 10. Have a set of 10 counters and a cup where all students can see them. Have some counters already hidden underneath the cup.

TEACHER SAY: Today we are going to play the game Peek-A-Boo 10 again. However, you are going to record your work in your math journal. Watch as I draw a circle. This circle is where I will draw the number of counters I think are hiding underneath the cup when we play the game.

TEACHER DO: Draw a circle.

TEACHER SAY: Let's pretend that my partner has already hidden some counters. Can you see what they have left for me?

TEACHER DO: Gesture to the set of counters and cup where some are already hidden.

TEACHER SAY: I can see _____ (number of counters) outside of my cup. Watch as I draw those counters.

TEACHER DO: Draw the counters outside of the circle.

TEACHER SAY: Now, I need to figure out how many counters are hiding underneath the cup. I can use my set of 10 counters to figure out the problem. I could also use my fingers or another strategy. Who thinks they know how many counters are underneath my cup?

TEACHER DO: Call on a student to share and explain their strategy for finding the answer.

TEACHER SAY: Yes, I think the number is _____ (number of counters underneath the cup). I will draw that many counters inside the circle.

TEACHER DO: Draw the counters inside the circle.

TEACHER SAY: They I will say, "Peek-A-Boo, I see you," and take the cup away to see if I was correct.

TEACHER DO: Take the cup away and check to see that the drawing shows the same number of counters.

TEACHER SAY: Then it will be my partner's turn. My partner will draw a circle in the math journal and then close his or her eyes while I hide some of my counters.

TEACHER DO: Model this several times as needed, until all students understand. Have students **Hands Up, Pair Up**. Then hand out counters, cups, and math journals.

TEACHER SAY: Turn to the page for Lesson 88 in your math journal. Remember to draw your circle to record how many counters are under the cup and how many counters are outside of the cup.

TEACHER DO: Walk around and make sure students understand how to record the game as they play several rounds together.

Note to the Techer: Since you introduced the symbolic notation for subtraction in a previous lesson, you may encourage the students who are ready to write it in their journals as they play the game. (For example, they may write 10-3 = 7.) Others may draw a circle to represent the cup and use numerals inside and outside of the circle. Still others may draw a circle with small counter-like marks inside and outside of the circle. Note students' levels of abstraction at this point in the year.

TEACHER SAY: Nice work playing Peek-A-Boo 10 today. Please place all of your counters in the cup and I will collect them.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Who would like to share a strategy that they used today while playing Peek-A-Boo 10? Please touch your nose if you would like to share something with the class.

STUDENTS DO: Touch their noses. Selected students share their strategies and model them, if possible.

TEACHER DO: Call on several different students to share.

TEACHER SAY: Great work today recording your work. Remember, if you have 10 coins, pebbles, or beans at home and a cup, you could show a parent, sibling, or friend how to play this game too.

Lesson 89 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 59.
- Identify the 20 LE note.
- Determine how many ones, fives, and tens are in a 20 LE note.
- Add within 20 using objects and drawings.

KEY VOCABULARY

- Equal
- Plus

MATERIALS

- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE, 5 LE, and 10 LE notes
- Spill the Beans game card (One per pair of students)
- One 20 LE note
- Cup (one per student group)
- 20 beans per pair of students to use as counters and 2 more beans per pair to use as game markers
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- Prepare materials for the game Spill the Beans, including game cards, cups, and beans as counters and game markers. (See Spill the Beans Game Card Blackline Master.) (See Chapter Preparation for additional instructions.)

📅 Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed. Use 10 LE if needed from this point on.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

👥 **STUDENTS DO:** Participate in the Ten Frame Activity. Count by ones and tens to 59.

💡 Learn (25-30 minutes)

Directions

Note to the Teacher: In previous lessons, any type of counter has worked for students to use as a manipulative to add and subtract within 20. This lesson's game is titled, Spill the Beans, so beans are used as counters and game markers. All references to counters and markers are written as beans. If you must substitute beans for a different material, please also change the name of the game and the Teacher Say text to reflect your counter material.

1. TEACHER SAY: Today we are going to look at the 20 LE note.

TEACHER DO: Hold up a 20 LE so all students can see it.

TEACHER SAY: In our last class, we counted by 10 LE notes to 20. Does anyone remember how many tens were in 20?

TEACHER DO: Give **Wait Time** and then call on a student.

👥 **STUDENT DO:** Reply: Two.

TEACHER SAY: Yes, there were 2 tens in 20. How many ones are in 20?

TEACHER DO: Give **Wait Time** and then call on a student.

👥 **STUDENT DO:** Reply: Twenty.

TEACHER SAY: Right, 20. Now, I have a challenge question that I will give you today and ask you about in our next class. Think now but do not yet answer out loud. How many fives do you think make up 20?

TEACHER DO: Make thinking face to show that students should be thinking.

2. TEACHER SAY: You all have been working so hard on adding and subtracting up to 10. Today we are going to play a new game that has you adding up to 20. It is called Spill the Beans. For this game, you will work with a partner. Each pair will have a game card with numbers on it, a cup, 2 beans to spill, 20 beans to count, and your math journals. Can I have a volunteer to help me show the class how to play this game?

👥 **STUDENTS DO:** Raise their hands.

TEACHER DO: Call on a student to be the volunteer.

TEACHER SAY: First, I will spill the beans on the game board by putting 2 in my cup and letting them gently fall onto the game card. My beans landed on the number _____ (name of number) and _____ (name of number). I now need to add these numbers together. I will do it in my math journal.

TEACHER DO: Write down the numbers.

TEACHER SAY: My partner and I also have 20 beans to use to help us count if we need to. I can count out both of my numbers with the beans and then add them together.

TEACHER DO: Count out both of the numbers separately and then add them together.

TEACHER SAY: I open up my journal to the page for Lesson 89, write my answer in my math journal, circle it, and then write that number on the line below. Then it is my partner's turn.

👥 **STUDENTS DO:** Volunteer does the same as above.

TEACHER SAY: We only use 2 beans for our first turn. After our first turn, we only put 1 bean in the cup.

TEACHER DO: Put 1 bean in the cup and then let it fall on the game board.

TEACHER SAY: I will then write my new number next to the answer I had from my first turn, which is the number I circled and wrote on the next line. I will put a plus sign in between the two numbers so I remember to add them. To find the answer, I can use my counting beans. Then I write an equal sign and the answer next to it. I circle the answer and then rewrite the number on the line below. Now it is my partner's turn. We keep playing this way until one of us reaches the number 20. When that happens, the game starts over.

TEACHER DO: Model how to record the new number and write a plus sign and an equal sign, then add the numbers together and circle the answer. Continue modeling this game with a partner until the class understands how to play.

Note to the Teacher: This game will also be played during the next lesson. Take as much time as needed during today's class to make sure that all students understand how to play. The game is complex, as it requires adding up to 20. Also, students are playing a multi-step game. Be sure to do examples where the sum is greater than 10, to practice place value. Also do examples reaching over 20, to show that more than 20 is also a winner.

TEACHER DO: When the class is ready, have them **Hands Up, Pair Up** and distribute game supplies and math journals. Monitor students as they play the game. This will help inform what

needs to be discussed and reviewed before they play again. Use **Attention Getting Signal**.

TEACHER SAY: Excellent work so far. Take a moment to give your math journal a high five if you have been writing numbers and math in it as you play Spill the Beans.

TEACHER DO: Notice any students who have yet to write in their math journals.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Would someone like to share something that was difficult today? Was there anything that challenged you? Please touch your nose if you would like to share.

STUDENTS DO: Touch their noses if they would like to share. Selected students share things they found challenging about the game Spill the Beans.

2. TEACHER SAY: Would someone like to share if they worked especially well with their partners today? Please touch your nose if you would like to share.

STUDENTS DO: Touch their noses if they would like to share. Selected students share what worked well with their partners.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 60.
- Determine how many 5 LE notes are in a 20 LE note.
- Add within 20 using objects and drawings.

KEY VOCABULARY

- Equal
- Plus

MATERIALS

- Calendar Math Area
- Ten frame
- Egyptian pounds for Buy the Date: 1 LE, 5 LE, 10 LE, and 20 LE notes
- Spill the Beans game card (one per pair of students)
- Cup (one per pair of students)
- 20 beans per pair of students to use as counters and 2 more beans per pair to use as game markers
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

2. TEACHER DO: Complete Buy the Date. See **Lesson 83** for instructions, if needed.

3. TEACHER DO: Complete Ten Frame Activity. Refer to **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity. Count by ones and tens to 60.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Yesterday, I asked you how many 5 LE notes you thought might be in 20 LE. Would anyone like to share their answer and their thinking? Please raise your hand if you would like to share.

STUDENTS DO: Share their answers.

TEACHER DO: Model how to skip count by fives on the hundreds chart to 20 to solve the problem.

TEACHER SAY: 5, 10, 15, 20. It takes four notes to have the same value as 20 LE.

2. TEACHER SAY: Today we will be playing the game Spill the Beans again. Can someone please raise their hand and remind us how we play?

STUDENTS DO: Raise their hands. Selected students review the steps of the game.

TEACHER DO: . Help students if they cannot remember.

TEACHER SAY: Are there two students who would like to come to the front of the class and

Model how to play this game as we all **Fishbowl** around them?

👥 **STUDENTS DO:** Raise their hands to volunteer. Selected students model the game.

TEACHER SAY: Thank you for helping us remember how to play the game. Please sit down. First you will all Hands Up, Pair Up. Second, I will hand out your supplies. Third, you will begin. Remember to record your work from Spill the Beans in your math journal.

🧑‍🏫 **TEACHER DO:** Hand out the game materials: 22 beans, game card, cup, and math journal. Have students open their journals to the page for **Lesson 90**. Help students with any parts they cannot remember and make sure they are properly recording their work in their math journals.

👥 **STUDENTS DO:** Play the game.

TEACHER DO: Walk around and monitor how students are playing. Check to make sure they are recording their work in their math journals.

👐 Share (5-10 minutes)

Directions

1. TEACHER SAY: I want you to think about playing the game yesterday and playing the game today. What was easier for you about playing the game the second time? I am going to give you a minute to think and when you have an answer, give me a Thumbs Up.

TEACHER DO: Give the students **Wait Time**.

👥 **STUDENTS DO:** Give a **Thumbs Up** when they have an idea. Selected students share their thinking.

TEACHER SAY: You all did a wonderful job of challenging your brains today. Pat your brain, which lives inside your head, and say, "Great work today."

KINDERGARTEN II

Mathematics

Chapter 4

Lessons 91-100

Lessons 91-100

COMPONENT	DESCRIPTION	TIME
Calendar and Movement	During this daily routine, students develop number sense, calendar sense, early place value concepts, counting fluency, and problem-solving skills. Students explore quantity and practice counting through patterns and movement.	15-20 minutes
Learn	During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction, and practice.	25-30 minutes
Share	During this daily routine, students develop their ability to express mathematical ideas by talking about their discoveries, using math vocabulary, asking questions to make sense of learning tasks, clarifying misconceptions, and learning to see things from other students' perspectives.	5-10 minutes

Learning Indicators

Throughout this chapter, students will work toward the following learning indicators:

OPERATIONS AND ALGEBRAIC THINKING
- Add or subtract within 20 using strategies such as
  - Using objects or drawings to represent a problem.
  - Decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1).
  - Finding the number that makes 10 when added to any number 1 to 9.
- Fluently add and subtract within 10.

NUMBERS AND OPERATIONS IN BASE TEN
- Compose and decompose numbers from 11 to 19 into 10 and some unit/ones using objects or drawings. For example, 12 means 10 and 2; 15 means 10 and 5.

MEASUREMENT
- Orally compare length, weight, and size by using longer than/shorter than, heavier/lighter, bigger/smaller.
- Collect and classify data using objects and drawings (up to 20).
- Classify objects into given categories (for example: length, weight, size, color) and sort categories by count.

LESSON	INSTRUCTIONAL FOCUS
91	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 61. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction story problems.
92	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 62. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction story problems.
93	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 63. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction problems.
94	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 64. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction problems.
95	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 65. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction problems.
96	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 66. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction problems.
97	**Students will:** • Participate in Calendar Math activities. • Count by ones and tens to 67. • Recognize and count Egyptian pounds. • Apply strategies to solve subtraction problems within 20. • Skip count by 5 to 100.

98

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 68.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems within 20.

99

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 69.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Collect class data.
- Analyze data to answer questions.

100

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 70.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Create a class book to celebrate the 100th day of school.

Term Preparation

Note to the Teacher: The following items will be used daily in some form throughout the rest of this chapter and into the next. Careful preparation of the items in advance is necessary for successful implementation of daily lessons.

- Gather enough Egyptian pound notes or pretend currency in 1 LE, 5 LE, 10 LE, and 20 LE denominations so that students can count notes for Buy the Day each day during Calendar Math. You will need approximately twenty 1 LE notes, two 5 LE notes, two 10 LE notes, and one 20 LE note.

Chapter Preparation

- For **Lessons 93-94**:
  - Gather Math is Fun game cards (one card per pair of students). (Cards were created for **Lesson 79**.)

- For **Lessons 95-96**:
  - Gather sets of Ten Frame Cards, 44 cards per set with Wild Cards removed. Ideally, have one set per student, but they can be used by partners, small groups, or the whole class. Store sets in envelopes to keep them organized. (Cards were created for **Lesson 76**.)
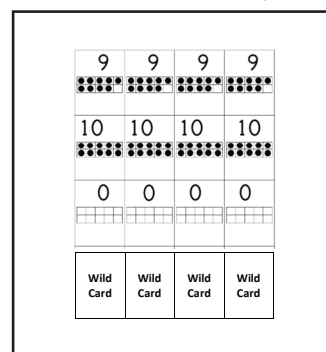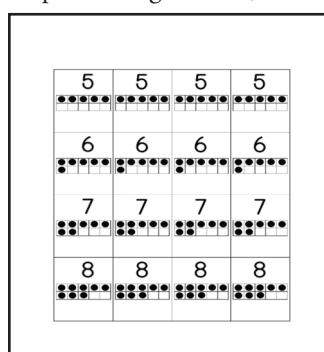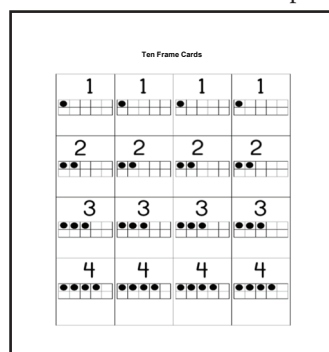
- For **Lessons 97-98**:
  - Gather materials to play Race to Zero, including sets of Ten Frame Cards, counters, and cups.

- For **Lessons 97-100**:
  - Obtain markers, such as sticky notes or push pins, to mark every second and fifth number on the 100s chart. From this visual, students will learn the pattern of skip counting by 2 and 5.

- For **Lesson 99**:
  - Prepare a graph with four columns called "Our Favorite Animals" on chart paper or on the board.
  - Number the graph from 0 to 20 on the vertical axis.
  - Students will generate the names of four types of animals to write on the horizontal axis of the graph (under each column).

- For **Lesson 100**:
  - Students will each need at least one piece of blank paper to make their *We Need 100 to Count* book. Include lines on the bottom of the page to help students with their writing. Make enough copies for students to have at least one sheet of paper.

Teaching Strategies Used

See pages 3-5 of this guide for detailed instructions.

- **Brainstorm**
- **Calling Sticks**
- **Fishbowl**
- **Hands Up, Pair Up**
- **Model**
- **Popcorn**
- **Round Up**
- **Role Play**
- **Shoulder Partner**
- **Thumbs Up**
- **Ten Can**
- **Wait Time**

Materials Used

Calendar math area

Math journal and pencil

Ten frame cards

Ten frame

Egyptian notes

Math is Fun game card

Ten Can

Sets of counters

Sticky notes, stickers, or push pins as place markers

Cups

Blank paper with writing lines on bottom

Crayons

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 61.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction story problems.

KEY VOCABULARY

- Subtraction

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- No additional preparation of materials beyond previous lessons.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

Learn (25-30 minutes)

Directions

1. TEACHER DO: Review previous math lesson.

STUDENTS DO: Briefly review their learning from the previous lesson.

2. TEACHER SAY: Today we are going to work on subtraction. Who can remember what the word subtraction means?

STUDENTS DO: Raise their hands. Selected students share their thinking.

TEACHER DO: If students cannot remember the definition, remind them that subtracting means to take away one amount, number, or quantity from another or to find the difference between two numbers.

TEACHER SAY: Today we are going to practice Role Playing and drawing subtraction problems. Let's pretend that 5 cats are all sitting under a tree together. I will use the Calling Sticks to pick five volunteers to Role Play the cats.

TEACHER DO: Pick 5 students to stand at the front of the room.

TEACHER SAY: I am going to give you instructions, but first can you all do your best impression of a cat sitting under a tree? What would that look like?

STUDENTS DO: Pretend to be cats.

TEACHER SAY: Suddenly, 2 of the cats see a mouse and run to chase it. Can two of you _____ (student's name) and _____ (student's name) pretend to chase the mouse? Please run back to your seat.

STUDENTS DO: Pretend to chase the mouse back to their seats.

TEACHER SAY: How many cats are left under the tree? Can you show me the number on your fingers?

STUDENTS DO: Hold up 3 fingers.

TEACHER SAY: Let's see if you were correct. As I point to each cat, please help me count.

STUDENTS DO: Count aloud to 3 with the teacher.

TEACHER SAY: Yes, there were 3 cats left. Great job Role Playing that problem. Can we thank our volunteers as they sit down by meowing like cats?

STUDENTS DO: Meow while volunteers sit down.

3. TEACHER SAY: I am going to hand out your math journals and we will draw a picture of the story problem.

TEACHER DO: Hand out math journals.

TEACHER SAY: Listen as I say each step and we will draw the story problem together. Please turn to the page for Lesson 91 Part 1. There were 5 cats sitting under a tree. Draw 5 cats sitting under a tree in your journal. Remember to keep your drawings simple.

STUDENTS DO: Open journals to the page for **Lesson 91** Part 1. Draw 5 cats sitting under a tree.

TEACHER DO: Walk around and check that students' drawings match the story problem.

TEACHER SAY: Two of the cats chased a mouse. Draw a mouse at the bottom of your page.

STUDENTS DO: Draw a mouse in their journals.

TEACHER SAY: Two cats chased the mouse. Those cats are no longer under the tree, so please let's show that by crossing them out.

STUDENTS DO: Cross out 2 cats.

TEACHER DO: Walk around and check that the students' drawings match the story problem.

TEACHER SAY: Circle the cats that are left. Then count them and write the number at the bottom of the page.

STUDENTS DO: Circle the remaining cats, count them, and write the number 3 at the bottom of the page.

TEACHER DO: Walk around and check that students' drawings match the story problem.

TEACHER SAY: Turn to your Shoulder Partner and share your work with each other.

STUDENTS DO: Share their work with their partners.

TEACHER SAY: **Great work. This time I will say the problem and you and your Shoulder Partner will figure out how to draw a picture of it. Turn to the page for Lesson 91 Part 2 in your math journal and listen as I say each step. Draw the story problem with your Shoulder Partner. Each of you will draw it in your own journal, but you will talk to each other about each step.**

STUDENTS DO: Open journals to the page for **Lesson 91** Part 2.

TEACHER DO: Read the story problem aloud. Make sure to pause and let the students draw each step.

TEACHER SAY: _____ **(Name of student in the class) had 10 buttons in their button collection. They gave 2 of them to _____ (name of different student). How many buttons did _____ (name of first student) have left? Remember to write your answer at the bottom of the page.**

STUDENTS DO: Draw the problem in their journals while talking to their partners about each step. Circle the remaining buttons. Count them and record their answers.

TEACHER DO: Walk around and check students' drawings to see if they are able to show each step of the problem.

Share (5-10 minutes)

Directions

1. TEACHER SAY: **For Share today, you and your Shoulder Partner are going to work with another group. Can you please round up four?**

TEACHER DO: Review the ways to play **Round Up** if needed. (See **Lesson 81** for a review of how to play **Round Up**.)

STUDENTS DO: Round up four.

TEACHER SAY: **Compare your drawings and see if you all got the same answer. If you did, give me a Thumbs Up.**

STUDENTS DO: Compare the work in their journals to see if their answers are the same or different.

TEACHER DO: Monitor the class to see if they agree.

TEACHER SAY: **I will use the Calling Sticks to select one student to share their thinking.**

STUDENTS DO: Selected student shares their thinking and explains how they solved the problem by sharing their drawing with the class.

TEACHER SAY: **Great work today on Role Playing and drawing your subtraction story problems.**

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 62.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction story problems.

KEY VOCABULARY

- Subtraction

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Ten Can**
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- Prepare a **Ten Can**. (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER SAY: Today I will pick a number from our Ten Can. Remember, our Ten Can has the numbers 0 to 10 written inside. We will start on the number I pick and count to 20. For example, if I picked a 5, we would say: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

TEACHER DO: Pull a number out of the **Ten Can**.

TEACHER SAY: My number is _____ (number). We will now count to 20 beginning with that number.

STUDENTS DO: Count aloud to 20 with the teacher, beginning with the number pulled from the **Ten Can**.

Note to the Teacher: If students need help, count while pointing at the hundreds chart so they can see where to begin.

Learn (25-30 minutes)

Directions

1. TEACHER DO: Review previous math lesson.

STUDENTS DO: Briefly review their learning from the previous lesson.

2. TEACHER SAY: **In our last math class, we used the strategies Role Playing and drawing to solve subtraction story problems. We are going to practice again today. Here is our first story problem: I baked 12 cookies. I ate 6 of them. How many do I have left? I will need volunteers to Role Play cookies. I will use Calling Sticks to select volunteers.**

STUDENTS DO: Selected students go to the front of the room to **Role Play** cookies.

TEACHER SAY: **Cookie volunteers, what can you do with your arms to show us you are a cookie? Can you make yourselves into a cookie shape using your arms?**

STUDENTS DO: Pretend to be cookies.

TEACHER SAY: **We have 12 cookies. I will eat 6 of them. I will walk behind 6 cookies, say, "Yum, yum, yum," tap them on the shoulder, and ask them to sit down.**

TEACHER DO: Move behind six students, say, "Yum, yum, yum," and tap them to sit down.

STUDENTS DO: Six students sit down.

TEACHER SAY: **How many cookies do I have left? Turn and tell your Shoulder Partner. When you agree on your answer, touch your head.**

STUDENTS DO: Discuss the problem and then touch their heads.

TEACHER SAY: **Who would like to share their answer and explain their thinking? Please raise your hand if you can share your answer and explain how you solved the problem.**

STUDENTS DO: Raise their hands. Selected students share their answers and explain their thinking.

TEACHER SAY: **You and your Shoulder Partner are going to draw your own cookie story problem. In the story, you and your partner will start with 12 cookies.**

TEACHER DO: Model drawing 12 cookies on the board.

TEACHER SAY: **You get to decide how many you will eat. For example, if I decided to eat 3 cookies, I will show that by crossing out 3 of my cookies.**

TEACHER DO: Model crossing out three cookies.

TEACHER SAY: **The next step is to figure out how many cookies you have left.**

TEACHER DO: Model counting the remaining cookies.

TEACHER SAY: **I have 9 cookies left. Finally, I will write my answer – 9 – and circle it to show it is my answer. Now it is your turn. First, I will hand out your math journals. Turn to the page for Lesson 92 and make your drawing for your story problem.**

TEACHER DO: Hand out math journals.

STUDENTS DO: Turn to the journal page for **Lesson 92**. Draw 12 cookies.

TEACHER SAY: **Then you need to decide how many cookies you will eat. Turn and Talk to your partner about how many cookies you will eat.**

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: Show how many cookies you ate by crossing them out.

STUDENTS DO: Cross out the eaten cookies.

TEACHER SAY: Count how many are left, write the number, and circle it.

STUDENTS DO: Count the remaining cookies, write the number of cookies left, and circle it.

TEACHER SAY: Now, you are going to be the teachers. I will pick a group to come to the front of the room. That group will explain their story problem, use the Calling Sticks to pick friends to Role Play cookies, say, "Yum, yum, yum," and tap the cookies they eat on the shoulders to sit back down. Raise your hand if you would like to come to the front of the room and be the teacher.

STUDENTS DO: Raise their hands to volunteer. Selected students go to the front of the room to create, tell, and **Role Play** a story problem.

TEACHER DO: Work through the problems with the students, allowing them to take ownership. Help them read the names on the **Calling Sticks** and walk them through the procedure step by step. Repeat this activity with as many students as possible so that all have a chance to participate.

Note to the Teacher: Allowing students to create their own story problems encourages higher-level thinking.

TEACHER SAY: Great work. I will collect your math journals and then we will share what we learned today.

TEACHER DO: Collect math journals.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today you got to be the teacher and create your own cookie story problems. How do the strategies of drawing and Role Playing help you solve story problems? Please touch your nose if you would like to share.

STUDENTS DO: Touch their noses. Selected students share their thinking.

TEACHER SAY: Wonderful work today. I would like to now give you a new challenge. As you go about your day, see if you can make up another story problem. Maybe at dinner you have two pieces of fruit and then you eat one. That could be a story problem. Maybe you have five pounds and spend one. That could also be story problem. Your challenge is to pay attention to the world around you and see if you can come up with a math story problem from your life. We can share them in our next class.

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 63.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems.

- Equals
- Equation
- Minus

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Math is Fun game card (one card per pair of students)
- Sets of 20 counters (one set per pair of students)

- Prepare Math is Fun game cards (one card per pair of students).
- Gather sets of 20 counters for Math is Fun (one set per pair of students). (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Ten Can** routine. See **Lesson 91** for instructions, if needed.

STUDENTS DO: Participate in the **Ten Can** routine.

Learn (25-30 minutes)

Directions

1. TEACHER DO: Review previous math lesson. Ask students if any of them thought about the challenge question, which was to come up with their own math story problem from their lives. If so, have them share.

STUDENTS DO: Share their math story problems.

2. TEACHER SAY: Today, we are going to play a game that we have played in the past. Do you remember how to play the game Math is Fun? We are going to play the game again, but this time I will give you equations to solve. Equations are like sentences in math. They tell us that everything on one side of the equal sign has to equal what is on the other side.

Note to the Teacher: This game was also played in Lessons 79 and 80. Review how to play, if needed. Briefly, the teacher says a problem, students use counters to solve it, and the corresponding number on each game board is covered. Students must choose where to put one counter per turn. Students win when they

have five counters in a row, in a column, or diagonally. When they have five in a row, they will say, "Math is fun."

TEACHER DO: Write 7 - 2 = on the board, emphasizing the = symbol as the equal sign.

TEACHER SAY: This is a math equation. The minus sign is telling me that I need to take 2 away from 7. I need to figure out what 7 minus 2 equals. I can use fingers to solve this problem or I can use counters.

TEACHER DO: Show students your set of counters.

TEACHER SAY: Who would like to come to the front of the classroom and solve this problem with the counters? Please touch your nose if you would like to show the class how to solve the problem.

STUDENTS DO: Touch their noses. Selected student goes to the front of the room to explain how to use counters to solve the problem.

TEACHER DO: Assist student as needed. Call on another student to show how to solve it using fingers.

STUDENTS DO: Selected student goes to the front of the room to explain how to use fingers to solve the problem.

TEACHER DO: Assist student as needed. Hand out Math is Fun game cards and counters to pairs of students.

TEACHER SAY: Are you ready to play?

TEACHER DO: Play the game as done in the previous class. Begin with the following questions. Write each one on the board, and create more until a student has five in a row:
- 3 - 2
- 8 - 1
- 10 - 0
- 10 - 2
- 2 - 2

STUDENTS DO: Use counters or fingers to solve the equations and mark their answers on their game boards.

Note to the Teacher: Monitor how students solve subtraction problems. If needed after a few problems, complete what is on the board with an equal sign and the answers. Students may be ready to solve problems of this level of difficulty on their own as a challenge.

TEACHER DO: Continue playing the game for multiple rounds.

TEACHER SAY: You have all worked so hard today on subtraction. I will use the Calling Sticks to pick two student volunteers. The first will collect the counters and the second will collect the game boards.

TEACHER DO: Call on two student helpers.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share I would like you to use your fingers to answer the questions I am going to give you. Please hold up your fingers when you know the answer. What is 10 minus 0? Please show me the answer using your fingers.

STUDENTS DO: Hold up 10 fingers.

TEACHER SAY: What is 3 minus 1?

STUDENTS DO: Hold up 2 fingers.

Note to the Teacher: This is a great informal assessment of students' understanding. Observe how they think about the problems and listen to their explanations. Note whether they are using fingers or counters to solve the problems.

TEACHER SAY: You all did a wonderful job of remembering how to play Math is Fun. You also worked hard with subtraction.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 64.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems.

- No new vocabulary. Reinforce previous vocabulary as needed.

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Math is Fun game card (one per pair of students)
- Sets of 20 counters (one set per pair of students)

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Ten Can** routine. See **Lesson 91** for instructions, if needed.

STUDENTS DO: Participate in the **Ten Can** routine.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today, we are going to play another round of the game Math is Fun with equations. Can you remember what an equation is? Please turn and tell your Shoulder Partner.

STUDENTS DO: Turn and Talk to their partners.

TEACHER SAY: If you said that an equation is like a math sentence, touch your head. If you remembered that both sides are equal, touch your shoulders. If you remembered both, do both.

STUDENTS DO: Touch their heads, shoulders, or both.

TEACHER SAY: I will hand out the game cards and the counters. Remember to use your counters to help you count.

TEACHER DO: Hand out the game cards and counters. Review how to play. See **Lesson 93**, if needed.

STUDENT DO: Play the Math is Fun game.

TEACHER DO: Begin with the following questions. Write each one on the board and then create more until a student has five in a row:

- 7 - 3
- 10 - 2
- 6 - 4
- 5 - 0
- 1 - 1

STUDENTS DO: Use their counters to solve the problem and mark their answers on their game boards.

TEACHER DO: Continue playing the game for multiple rounds.

TEACHER SAY: You all have worked so hard today on subtraction. I will use the Calling Sticks to pick two student volunteers. The first will collect the counters and the second will collect the game boards.

TEACHER DO: Call on two student helpers.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share I will pick a Calling Stick and let that volunteer give us a subtraction equation to solve.

TEACHER DO: Pull a Calling Stick.

TEACHER SAY: _____ (Student's name), can you please create an equation for the class to solve?

STUDENTS DO: Selected student makes up an equation for the class to solve.

TEACHER SAY: Friends, can you show the answer to the problem on your fingers?

STUDENTS DO: Use their fingers to solve the subtraction problem.

TEACHER SAY: Thank you, _____ (student's name). Now I will pick another volunteer with the Calling Sticks.

TEACHER DO: Repeat having several different students share while other students use their fingers to solve the subtraction problems.

TEACHER SAY: Great work today.

Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 65.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems.

- No new vocabulary. Reinforce previous vocabulary as needed.

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of Ten Frame Cards (with Wild Cards removed) (44 cards per set)
- Sets of 10 counters (one set per student)
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- Decide how students will play the Write the Equation game (individually, in pairs, in a small group, or with the whole class). Gather enough Ten Frame Cards to play the game plus one set for the teacher. Store cards in envelopes. (See Chapter Preparation for additional instructions.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Ten Can** routine. See **Lesson 91** for instructions, if needed.

STUDENTS DO: Participate in the **Ten Can** routine.

Learn (25-30 minutes)

Directions

1. TEACHER DO: Review previous math lesson.

STUDENTS DO: Briefly review their learning from the previous lesson.

2. TEACHER SAY: Today, we are going to continue our work with subtraction equations. Remember, an equation is a number sentence where the answers on both sides of the equal sign have the same value. You are going to do something that real mathematicians do. You are going to write the equations yourselves.

TEACHER DO: Show students a stack of number cards.

TEAHER SAY: Do you remember when we used these number cards before? We used them to make 10 pairs. Today, we are going to use them to play the game Write the Equation. This is a partner game. Is there a brave student who would like to help me Model how to play this game?

👥 **STUDENTS DO:** Raise hands to volunteer. Selected student goes to the front of the room.

TEACHER DO: Hand the student their math journal.

TEACHER SAY: Everyone move around us so we can Fishbowl. Remember, you need to quietly watch what we are doing like you are watching shy fish in a bowl.

👥 **STUDENTS DO:** Move so they can see the demonstration.

TEACHER SAY: I have a deck of cards face down in a stack so you cannot see the numbers. My partner has their own deck of cards.

TEACHER DO: Hand a deck of cards to the volunteer.

TEACHER SAY: We also both have our math journals so we can write the equation.

TEACHER DO: Turn to the appropriate page in personal math journal and have the volunteer do the same.

👥 **STUDENTS DO:** Volunteer turns to the page for **Lesson 95** in their journal.

TEACHER SAY: We also have a set of 10 counters.

TEACHER DO: Show students the counters.

TEACHER SAY: To play this game, my partner and I will both flip over our top cards and lay them out in front of us. Ready? Flip.

TEACHER DO: Flip top card.

👥 **STUDENTS DO:** Volunteer flips top card.

TEACHER SAY: Now we look at the numbers. I flipped a _____ (number on card) and my volunteer flipped a _____ (number on card). We will use our counters to subtract these two numbers. Which number should I build first with my counters? My number _____ (number on card) or my partner's _____ (number on card)? How do you know?

TEACHER DO: Try building both the larger number and the smaller number with the counters. For instance, if you have an 8 and a 5, build the 8 and then take away 5. Also build the 5 and then try to take away 8.

Note to the Teacher: Students should gain the understanding that you cannot subtract larger numbers from smaller numbers in this game. Demonstrate this game multiple times, especially if numbers flipped are the same value or if one is a zero.

TEACHER SAY: Then we record our equations in our math journal. At the top of our papers, we both write: _____ (number) minus _____ (number) equals _____ (answer). (Example: 8 - 5 = 3)

TEACHER DO: Model writing in journal and help partner write the equation in their journal.

👥 **STUDENTS DO:** Volunteer writes equation in their journal.

TEACHER SAY: Make sure you have enough room on the page to record all of your equations. Which number comes first in our subtraction equations? The bigger number or the smaller number? Shout it out.

👥 **STUDENTS DO:** Respond together: Bigger number.

TEACHER SAY: Great. Now I will hand out math journals and card decks.

TEACHER DO: Hand out math journals and cards.

TEACHER SAY: For this game, we will Hands Up, Pair Up. Take your journal with you. Once you have found a partner, open your journal to the page for Lesson 95.

STUDENTS DO: Do **Hands Up, Pair Up** to form pairs. Open their math journals to the page for **Lesson 95**.

TEACHER SAY: I will hand out counters to each pair. When you have your counters, you may begin. Remember to record your equations in your journals.

TEACHER DO: Hand out counters.

STUDENTS DO: Play the game by turning over their cards, solving the equations with counters, and writing the equations and answers in their math journals.

TEACHER DO: Walk around and observe students' work. Check to see that students are using their counters and recording their equations. Ask students: How did you know which number to build first? Can you point to the bigger number? What happens when you flip a zero?

STUDENTS DO: Continue playing the game until it is Share time.

TEACHER SAY: Put your personal card deck back in its envelope. I will collect the cards. Can I have one volunteer to collect the counters?

STUDENTS DO: Raise their hands. Selected student collects the counters.

TEACHER DO: Collect the card decks.

Share (5-10 minutes)

Directions

1. TEACHER SAY: For Share today, I would like you to Hands Up, Pair Up with a different partner. Bring your math journals with you.

STUDENTS DO: Pair up. Bring math journals with them.

TEACHER SAY: Check your work with your new partner. Make sure that your partner wrote the bigger number first in the equation and that you can read their numbers. Check to see if they solved their problems correctly.

STUDENTS DO: Check each other's work.

TEACHER DO: Listen to the conversations students are having. See if they are checking each other's work accurately.

TEACHER SAY: Great work today. Please close your math journals. You have all done a great job practicing writing equations just like real mathematicians.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 66.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems.

- No new vocabulary. Reinforce previous vocabulary as needed.

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of Ten Frame Cards (with Wild Cards removed) (44 cards per set)
- Sets of 10 counters (one set per student)
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Ten Can** routine. See **Lesson 91** for instructions, if needed.

STUDENTS DO: Participate in the **Ten Can** routine.

Learn (25-30 minutes)

Directions

1. TEACHER DO: Review previous math lesson.

STUDENTS DO: Briefly review their learning from the previous lesson.

2. TEACHER SAY: Today, we are going to continue our work with subtraction equations and play the game Write the Equation one more time. Remember, an equation is a number sentence where the answers on both sides of the equal sign have the same value. Can I have two student volunteers come to the front of the room and Model how to play? Please raise your hand if you would like to volunteer.

STUDENTS DO: Raise their hands. Selected students go to the front of the class.

TEACHER DO: Give volunteers math journals, counters, and card decks. Have the rest of the class **Fishbowl** around them to watch them **Model** how to play the game. Coach students as

needed through the process of turning over cards, deciding which number is larger, building that number with counters, taking the number on the smaller card away, recording equation in math journals, and leaving enough space to record multiple rounds of the game.

TEACHER SAY: Thank you, volunteers. Please return to your seats. For this game, we will Hands Up, Pair Up. Remember, you will record your equations in your math journal.

👥 **STUDENTS DO:** Get into pairs.

TEACHER DO: Hand out counters, math journals, and card decks. Have students open their journals to the page for **Lesson 96**.

👥 **STUDENTS DO:** Open their journals to the page for **Lesson 96**. Play the game by turning over their cards, using counters to solve the subtraction equations, and recording the equations in their math journals.

TEACHER DO: Walk around to observe students' work. Check to see that students are using their counters and recording their equations. Ask students: How did you know which number to build first? Can you point to the bigger number? What happens when you flip over a zero card?

👥 **STUDENTS DO:** Continue playing the game until it is Share time.

TEACHER SAY: Put your personal card deck back in its envelope. I will collect the cards and the math journals. Can I have one volunteer collect the counters?

👥 **STUDENTS DO:** Raise their hands and one volunteer collects the counters.

TEACHER DO: Collect the card decks and math journals.

👐 Share (5-10 minutes)

Directions

1. TEACHER SAY: Please turn to your Shoulder Partner and share something you have learned while playing Write the Equation.

👥 **STUDENTS DO: Turn and Talk** to their partners.

TEACHER SAY: Give me a Thumbs Up if you would like to share what you have learned.

👥 **STUDENTS DO:** Give a **Thumbs Up**. Selected students share their learning.

TEACHER SAY: Fantastic work today. You are wonderful mathematicians.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 67.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems within 20.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Sticky notes, stickers, or push pins (or another way to mark numbers on hundreds chart)
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 20 counters (one set per student and one set for the teacher)
- Cups (one per student)
- Sets of Ten Frame Cards (with Wild Cards removed) (44 cards per set)
- Math journals and pencils

LESSON PREPARATION FOR THE TEACHER

- Gather enough markers for counting on the hundreds chart by twos or fives. (See Chapter Preparation for additional instructions.)
- Gather materials to play Race to Zero, including sets of Ten Frame Cards, counters, and cups.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER SAY: We have worked on skip counting by twos. In today's lesson, we are going to do something new—skip counting by fives. When we skip count by fives, we start on the number 5 and then add 5 more. We keep adding 5 each time we count.

TEACHER DO: Move to the hundreds chart.

TEACHER SAY: First we will start with 5. I will mark this number on the hundreds chart.

TEACHER DO: Put finger on the number 5.

TEACHER SAY: Then we add 5 more. Watch as I count to 5 while touching each new number.

TEACHER DO: Point to 6 and count 1. Point to 7 and count 2. Point to 8 and count 3. Continue until the number 10 is reached. Put a counter on the 5 and the 10.

TEACHER SAY: When I add 5 to the number 5, I get to 10. I will mark this number on the hundreds chart.

TEACHER DO: Continue to skip count by fives. Have the students help until all of the numbers are marked from 5 to 100.

TEACHER SAY: What do you notice about the numbers marked on the hundreds chart? Turn and Talk to the person beside you.

STUDENTS DO: Talk to their partners about what they notice about the numbers marked on the hundreds chart.

TEACHER SAY: Raise your hand if you can share your thinking.

STUDENTS DO: Raise their hands and share.

TEACHER DO: Call on several different students to share.

Note to the Teacher: If students do not see the pattern, point it out. Also bring awareness to the fact that all of the numbers have a 5 or 0 in the ones place.

TEACHER SAY: Great job thinking about what skip counting by fives looks like on the hundreds chart. Let's now count together by fives to 100 using the hundreds chart to help us.

TEACHER DO: Count by fives with the students. Point to each number on the hundreds chart as it is stated.

Note to the Teacher: Keep the indicators of multiples of 5 on the hundreds chart so they can be used for the rest of the chapter. Seeing the sticky notes on the multiples of 5 helps students learn them.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we learned in our last math class.

STUDENTS DO: Turn and Talk to their Shoulder Partners.

2. TEACHER SAY: Today, we will play a new game with our card decks. It is called Race to Zero. Each partner will have a deck of cards, 20 counters, a cup, and their math journal. The object of the game is to be the first player to get to zero. Raise your hand to volunteer to help me show the class how to play this game.

STUDENTS DO: Raise their hands. Selected student goes to the front of the room.

TEACHER DO: The student and teacher will need a deck of cards, their math journal, a cup, and a set of 20 counters each.

TEACHER SAY: Since we are starting with 20 counters, our subtraction problem will read 20 minus blank equals blank. This has already been written in your math journal.

TEACHER DO: Write 20 – _____ = _____ on the board.

TEACHER SAY: The line after the subtraction symbol is waiting for the number on the card I will flip over. The blank line is just so I remember where to put the number.

TEACHER DO: Flip over the top card in the deck.

TEACHER SAY: I flipped over the top card of my deck. I got a _____ (number on card). I write a _____ (number on card) on the first blank line. This is the number I will subtract from 20.

TEACHER DO: Write the number from the card on the first line. For example, if a 5 card was chosen, the equation would read 20 - 5 =_____.

TEACHER SAY: I will use my counters to answer my equation. I started with 20 counters and now I will take away _____ (number on card). I will put the counters that I am taking away into my cup.

TEACHER DO: Count out the number you are taking away from 20 and put that many counters in the cup.

TEACHER SAY: Next, I count the remaining counters to see what 20 minus _____ (number on card) equals.

TEACHER DO: Count each of the remaining counters aloud.

TEACHER SAY: I fill in the answer blank in my problem. Twenty minus _____ (number on card) equals _____ (answer). I now have _____ (number of counters left). In my math journal, I write _____ (new number of counters) minus blank equals blank. Then it is my partner's turn.

STUDENTS DO: Volunteer also records remainder of problem and the answer in their math journal.

TEACHER DO: Repeat the process. Help the student volunteer move through the steps. Continue to **Model** how to play this game several times until someone wins by reaching zero.

Note to the Teacher: Make sure that students see that at some point, the number on the card will be greater than the starting number. When this happens, the student who drew the card skips their turn. This game will be played during the next lesson, too. Take as much time as needed during today's lesson to make sure that all students understand how to play. Not only are they now working on subtracting numbers from 20, but they are also practicing playing a multi-step game.

TEACHER SAY: It is your turn to play Race to Zero with your Shoulder Partner. I will hand out math journals, card decks, cups, and counters. You may begin as soon as you have all of your materials. Remember, the first part of the problem is written for you. If you play more than once, you will have to write 20 minus blank equals blank in your journal. I will write it on the board to help you remember.

TEACHER DO: Write 20 - ____ = ____. Hand out materials.

STUDENTS DO: Play the game by flipping over cards, solving subtraction problems using their counters, and recording their work in their math journals.

TEACHER DO: Walk around to observe students as they work. Check to make sure students understand how to play and remind them of the rules.

TEACHER SAY: Excellent job playing Race to Zero. Raise your hand if you made it all the way down to zero.

STUDENTS DO: Raise their hands.

TEACHER SAY: Wonderful work. I will collect your materials and then we will share.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Who would like to share something that was difficult today? Was there anything that challenged you? Please touch your nose if you would like to share.

STUDENTS DO: Touch their noses. Selected students discuss aspects of the game they found challenging. All students listen attentively.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 68.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to solve subtraction problems within 20.

- No new vocabulary. Reinforce previous vocabulary as needed.

- Calendar Math Area
- Ten frame
- Sticky notes, stickers, or push pins (or another way to mark numbers on hundreds chart)
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 20 counters (one set per student and one set for the teacher)
- Cups (one per student)
- Sets of Ten Frame Cards (with Wild Cards removed) (44 cards per set)

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER SAY: Today, we will practice skip counting to 100 by fives again. However, this time I will pull a Calling Stick to have a student volunteer come to the front of the classroom and lead us by pointing to the numbers on our hundreds chart.

TEACHER DO: Choose a student by picking a **Calling Stick**.

STUDENTS DO: Selected student goes to the hundreds chart and leads the routine by pointing to each number and saying it aloud with the class.

TEACHER DO: Count aloud with students.

TEACHER SAY: _____ (Student's name), thank you for leading the class. Please sit down. Nice job counting, everyone.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: **Please turn and tell your Shoulder Partner what we learned in our last math lesson.**

STUDENTS DO: Turn and Talk to their **Shoulder Partners**.

2. TEACHER SAY: **Today, we will play Race to Zero again. Can I have a student volunteer remind us how to play the game?**

STUDENTS DO: Raise hands to volunteer. Selected student explains how to play the game.

TEACHER DO: Help volunteer as needed. Use the materials if needed to **Model**, and refer to the previous lesson for instruction.

TEACHER SAY: **It is your turn to play. We will Hands Up, Pair Up today. I will hand out math journals, card decks, cups, and counters. You may begin as soon as you have all of your materials.**

TEACHER DO: Hand out materials.

STUDENTS DO: Play the game by flipping over cards, subtracting using their counters, and recording their work in their math journals.

TEACHER DO: Walk around to observe students as they work. Check to make sure students understand how to play and remind them of the rules.

TEACHER SAY: **Wonderful job playing Race to Zero. Please raise your hand if you made it all the way down to zero.**

STUDENTS DO: Raise their hands.

TEACHER SAY: **I will collect your materials and then we will share.**

Share (5-10 minutes)

Directions

1. TEACHER SAY: **Who would like to share something that was difficult yesterday but easier today? Was there anything that was made simpler by playing the game a second time? Please touch your nose if you would like to share.**

STUDENTS DO: Touch their noses. Selected students share their thinking. All students listen attentively.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS
Students will: • Participate in Calendar Math activities. • Count by ones and tens to 69. • Skip count by 5 to 100. • Recognize and count Egyptian pounds. • Collect class data. • Analyze data to answer questions.	• Data • Graphs	• Calendar Math Area • Ten frame • Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day • Our Favorite Animals graph

LESSON PREPARATION FOR THE TEACHER

• Display graph titled, "Our Favorite Animals." (See Chapter Preparation for details.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Skip Counting by Fives routine. See **Lesson 98** for instructions, if needed.

STUDENTS DO: Participate in the Skip Counting routine.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we learned in our last math lesson.

STUDENTS DO: Turn and Talk to their **Shoulder Partners**.

2. TEACHER SAY: We have been practicing the kind of math that involves counting and subtracting. Another way that adults use math is to gather and understand data. Data is a math word for information. Data can be organized into graphs so it is easier to read. Data can help us answer questions. Graphs are pictures that help us understand data. We learned about graphs and data earlier in the year. Raise your hand to tell me what you remember about data and graphs.

👥 **STUDENTS DO:** Raise hands to volunteer. Selected students share their learning about graphs.

TEACHER SAY: We are going to collect data about ourselves today. I would like to know what your favorite animals are. That is the title of the graph and the question we will be answering. But first, I need your help. We need to write four types of animals along the bottom of our graph. Turn and Talk with your Shoulder Partner about your favorite animals.

👥 **STUDENTS DO: Turn and Talk to their Shoulder Partners.**

TEACHER DO: Give **Wait Time** for students to work with their partners to **Brainstorm** ideas for their animals. Then use **Attention Getting Signal** to let the class know it is time to move on.

TEACHER SAY: Great job working with your partners. What were some of the animals you came up with? Let's Brainstorm a list and then we will pick four to use. Raise your hand if you would like to share. We will Popcorn around the room.

👥 **STUDENTS DO:** Raise their hands to volunteer. Selected students share the name of an animal and **Popcorn** to another student.

TEACHER DO: Write a list of about 10 types of animals on the board as suggested by students.

TEACHER SAY: Now, I will look at our list and pick four animals to use in our graph. I will circle the ones we will use.

TEACHER DO: Circle four animals for the graph.

TEACHER SAY: I will write the names of the animals on the bottom of the graph.

TEACHER DO: Write the names of the animals on the horizontal axis of the graph. Consider adding a quick sketch or cut-out image of each animal to help students associate the written

TEACHER SAY: When I call on you (or your table), come to the front of the room and make an X above the animal you like the most out of these four.

TEACHER DO: Call students up one-at-a-time or by table. Have each student pick one of the four animals as a favorite and draw an X above the animal's name on the graph. Remind students to try to draw all of their X's the same size. Continue this process until all students have added their data to the graph.

TEACHER SAY: Now, let's look at our graph and see what it tells us. First, help me count how many people liked each animal.

👥 **STUDENTS DO:** Count the X's in each category aloud with the teacher.

TEACHER SAY: Which of these animals is the most popular animal in our class? How do you know? Raise your hand to volunteer.

👥 **STUDENTS DO:** Raise hands to volunteer. Selected students answer the question and explain their thinking.

TEACHER SAY: Can you pretend to be that animal?

👥 **STUDENTS DO:** Act like the animal that is the favorite on the graph.

Note to the Teacher: If any of the animals receive an equal number of responses, discuss what that means with the students. Later, you will be looking for responses such as, "There are three more people who like dogs than who like cats."

TEACHER SAY: Which of these animals is the least popular animal in our class? How do you know? Raise your hand to volunteer.

👥 **STUDENTS DO:** Raise hands to volunteer. Selected students answer the question and explain their thinking.

TEACHER SAY: Let's pretend to be the least favorite animal.

STUDENTS DO: Act like the least favorite animal on the graph.

TEACHER SAY: What other information can we learn by looking at this graph? Touch your nose if you have any other information you would like to share.

STUDENTS DO: Touch their noses. Selected students share their ideas and explain their thinking.

TEACHER SAY: You all have done a wonderful job of gathering data, making a graph, and answering questions about the data.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Tell your Shoulder Partner how graphs can be helpful. What can they show us? How can we use them?

STUDENTS DO: Talk to their Shoulder Partners.

TEACHER SAY: Raise your hand if you would like to share your thinking with the class.

STUDENTS DO: Selected students share their thinking and give examples.

TEACHER SAY: Graphs are great ways to show us information. We are able to look at them and learn new things. Think about other things you would like to know about your classmates—maybe favorite colors, favorite foods, favorite places, or favorite books. You may get to ask some of these questions the next time we work with data and graphs.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count by ones and tens to 70.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Create a class book to celebrate the 100th day of school.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Blank paper for students, with lines for writing a sentence on the bottom margin
- Crayons

LESSON PREPARATION FOR THE TEACHER

- Prepare a sheet of paper with lines at the bottom.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math activities.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER SAY: Today is a very important day. As of today, we have spent 100 days learning about math and we are 100 days smarter. Today, we are going to have a special 100th Day celebration. Throughout the math lesson I will say, "Stop, it is time to celebrate our 100th Day. Count to 100 and…" Then I will give you an action. You will stand up and count to 100 while doing that action. Let's try together. "Stop, it is time to celebrate our 100th Day. Count to 100 and run in place." Please stand up and follow along with me as I run in place and count by ones to 100.

STUDENTS DO: Run in place and count to 100 with the teacher.

TEACHER SAY: Great job. We will stop and celebrate several times today during math.

Learn (25-30 minutes)

Directions

Note to the Teacher: Today is a celebration. Counting up to 100 may be easier for some students than others. The object of today's lesson is not to make sure all students can count to 100. It is for students to celebrate working hard in math over the course of 100 days and to experience how fun math can be.

1. TEACHER SAY: Tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their thinking with their **Shoulder Partners**.

TEACHER SAY: Do you think we have more than 100 students in our class or fewer than 100 students? Give me a Thumbs Up if you think we have more than 100.

STUDENTS DO: Give a **Thumbs Up** if they think there are more than 100 students in the class.

TEACHER SAY: How could we check to see if we have more or less than 100 students? Raise your hand if you can tell us.

STUDENTS DO: Raise their hands to volunteer. Selected students share their thinking.

TEACHER DO: Count aloud the number of students in the class.

2. TEACHER SAY: Can you think of a time we might use the number 100? What might we be counting? To give you an idea, I might say that I could count 100 crayons in a big box of crayons. Tell your Shoulder Partner your ideas.

STUDENTS DO: Tell their **Shoulder Partners** their ideas.

TEACHER SAY: Let's Brainstorm as many ideas as we can about when we could count to 100. I will write all of your ideas on the board. Raise your hand if you and your partner thought of a time you could count to 100.

STUDENTS DO: Raise their hands to share. Selected students share their ideas.

TEACHER DO: Record all reasonable answers on the board. If students have a hard time coming up with examples, suggest ideas such as leaves on trees, legs on a centipede, the age of an older relative, students in several combined classes, people on the beach, people at the mosque, cars on a busy road, or people on an airplane.

TEACHER SAY: Stop, it is time to celebrate our 100th Day. Count to 100 while doing jumping jacks.

STUDENTS DO: Count with the teacher to 100 while doing jumping jacks.

TEACHER SAY: Great job counting. Now, let's get back to our work. You have thought of great ways to count to 100. Today we are going to make our own class book. It will be titled *We Need 100 to Count*. Each one of you will illustrate a page of the book. You will write a sentence on the bottom of your sheet that says, "I use 100 to count _____."

TEACHER DO: Write, "I need 100 to count _____." on the board.

TEACHER SAY: Then you will decide what you will illustrate. My sentence might say, "I need 100 to count crayons in a big box of crayons." Then I would draw a big box of crayons. I might even draw 100 crayons in it.

TEACHER DO: Finish your sentence on the board and draw a big box of crayons.

TEACHER SAY: If you want a challenge, try to draw 100 of the object you listed.

Note to the Teacher: Students need to understand that 100 is a big number. It is great if they take the challenge, but the learning is in the thinking about when people use this number in the real world.

TEACHER SAY: I will hand each of you a piece of paper. Your first job is to write your sentence on the bottom of the paper. Copy my sentence from the board, but write your own idea in the blank space. Use our list on the board to help you with your spelling. Your second job is to draw your picture and color it.

TEACHER DO: Hand out papers.

STUDENTS DO: Write their sentences on the bottom using the sentence and the list on the board for support.

TEACHER DO: Walk around the room to observe students as they work. Offer support as needed. After students have worked for about 10 minutes, stop them for a 100th day celebration.

TEACHER SAY: Stop, it is time to celebrate our 100th Day. Count to 100 while clapping your hands.

STUDENTS DO: Count to 100 while clapping their hands with the teacher.

TEACHER SAY: Great counting. Now let's quickly get back to work.

STUDENTS DO: Continue writing their sentences and drawing their pictures.

TEACHER DO: Walk around and ask students questions about their drawings. If they finish early, they can illustrate another page. Give them a 10-minute warning before the end of class, so they can finish their work and be prepared for Share.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share, I would like you to show your classmates your drawings and read your sentences. We will Popcorn until all students have had a chance to share. Please raise your hand if you would like to go first.

STUDENTS DO: Raise their hands. The first student shares and then picks another student to share until everyone has read their sentences aloud.

TEACHER SAY: Nice job today being both mathematicians and authors. I will put all of your pages together into a book for us to read again another time.

TEACHER DO: After class, staple the pages of the book together so students and visitors to the classroom can read it.

KINDERGARTEN II

Mathematics

Chapter 5

Lessons 101-110

Lessons 101-110

COMPONENT	DESCRIPTION	TIME
Calendar and Movement	During this daily routine, students develop number sense, calendar sense, early place value concepts, counting fluency, and problem-solving skills. Students explore quantity and practice counting through patterns and movement.	15-20 minutes
Learn	During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction, and practice.	25-30 minutes
Share	During this daily routine, students develop their ability to express mathematical ideas by talking about their discoveries, using math vocabulary, asking questions to make sense of learning tasks, clarifying misconceptions, and learning to see things from other students' perspectives.	5-10 minutes

Learning Indicators

Throughout this chapter, students will work toward the following learning indicators:

OPERATIONS AND ALGEBRAIC THINKING
- Add or subtract within 20 using strategies such as
  - Using objects or drawings to represent a problem.
  - Decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1).
  - Finding the number that makes 10 when added to any number 1 to 9.
- Fluently add and subtract within 10.

NUMBERS AND OPERATIONS IN BASE TEN
- Compose and decompose numbers from 11 to 19 into 10 and some unit/ones using objects or drawings. For example, 12 means 10 and 2; 15 means 10 and 5.

MEASUREMENT
- Compare orally between length, weight, and size using longer than/shorter than, heavier/lighter, bigger/smaller.
- Collect and classify data using objects and drawings (up to 20).
- Classify objects into given categories (for example: length, weight, size, color) and sort categories by count.

Pacing Guide

LESSON	INSTRUCTIONAL FOCUS
101	**Students will:** • Participate in Calendar Math activities. • Skip count by 5 to 100. • Recognize and count Egyptian pounds. • Collect data. • Analyze data to answer questions.
102	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compose 10 using two addends.
103	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compose 10 using two addends.
104	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compose 10 using two addends.
105	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compose 10 using two addends.
106	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Apply strategies to subtract within 10.
107	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Apply strategies to subtract within 10.
108	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Apply strategies to subtract within 10.

109

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to add and subtract within 10.

110

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to add and subtract within 10.

Chapter Preparation

- For **Lesson 101**:
  - Prepare a graph with four columns called "Our Favorite Colors" on chart paper.
  - Label the vertical axis "Number of Students."
  - Write blue, green, purple, and red on the horizontal axis. Label this axis "Colors."
  - Draw four circles 10-15 cm in size. Color one blue, one green, one purple, and one red. Cut them out and display one circle in each corner of the room.
  - You will create additional graphs after this one, so have extra chart paper available.

- For **Lessons 102-110**:
  - Add the numbers 11 to 20 to the **Ten Can** to make it a **Twenty Can**. See **Lesson 76**. The **Twenty Can** will be used for Calendar Math.

- For **Lessons 102-104**:
  - Gather sets of Ten Frame Cards (44 cards per set with wild cards removed). Ideally, have one set per student, but they can be used by partners, small groups, or the whole class.
  - Store sets in envelopes to keep them organized.
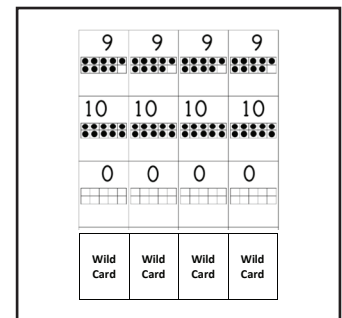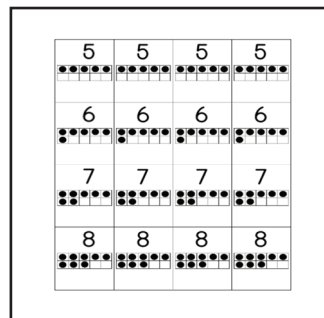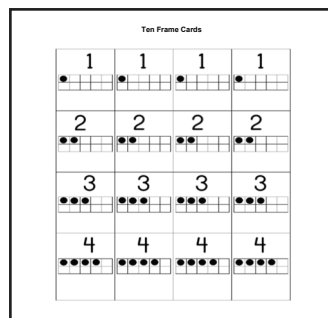
- For **Lesson 105**:
  - Write the addition problems below on sticky notes or index cards (one problem per note/card) and place them around the room in random order. Students will record problems and their answers in their math journals.
    - $0 + \underline{\hspace{1cm}} = 10$
    - $1 + \underline{\hspace{1cm}} = 10$
    - $2 + \underline{\hspace{1cm}} = 10$
    - $3 + \underline{\hspace{1cm}} = 10$
    - $4 + \underline{\hspace{1cm}} = 10$
    - $5 + \underline{\hspace{1cm}} = 10$
    - $6 + \underline{\hspace{1cm}} = 10$
    - $7 + \underline{\hspace{1cm}} = 10$
    - $8 + \underline{\hspace{1cm}} = 10$
    - $9 + \underline{\hspace{1cm}} = 10$
    - $10 + \underline{\hspace{1cm}} = 10$

- For Lessons **107-108**:
  - Create headbands: Make each student a strip of paper 5-6 cm wide that can fit around their head.
  - Create a model headband showing a subtraction problem written in large numbers in the front center (forehead) of the headband. The problem should not include the answer. Example: 5 - 3 = _____.
  - Students will write their own subtraction problems on their headbands and then decorate their headbands. Gather materials for students to use to decorate and personalize their headbands (glue, scissors, strips of construction paper, stickers, markers, feathers, beads, glitter, crayons).

- For **Lesson 110**:
  - Review students' work from **Lesson 109**. Choose five addition problems and five subtraction problems. Write these problems on sticky notes, index cards, or paper, and place them around the room.
  - Create a model parking lot problem of 7 + 2 = _____ on a sticky note, index card, or sheet of paper.

Teaching Strategies Used

See pages 3-5 of this guide for detailed instructions.

- **Calling Sticks**
- **Fishbowl**
- **Four Corners**
- **Gallery Walk**
- **Hands Up, Pair Up**
- **Model**
- **Shoulder Partner**
- **Ten Can**
- **Twenty Can**
- **Think Aloud**
- **Think Time**
- **Thumbs Up**
- **Turn and Talk**

Materials Used

Calendar math area

Math journal and pencil

Play money in denominations of 1 LE, 5 LE, 10 LE, and 20 LE

Chart paper

Circles: blue, green, purple, and red
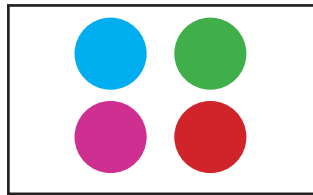
Tape

Markers

Twenty Can

Sets of ten frame cards
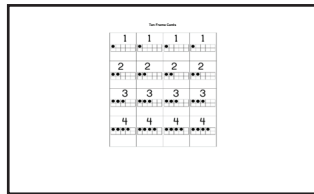
Sets of 10 counters and a cup (one set per pair of students)

Extra paper

Folded paper tents
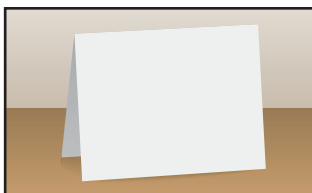
Materials for students' headbands, including decorative materials

Stapler or tape

Ten frame
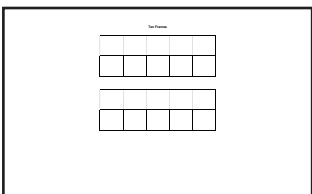
LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Skip count by 5 to 100.
- Recognize and count Egyptian pounds.
- Collect data.
- Analyze data to answer questions.

- No new vocabulary. Reinforce previous vocabulary.

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- "Our Favorite Colors" graph
- Additional sheets of chart paper
- Circles: blue, green, purple, and red
- Tape
- Markers
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- Display the "Our Favorite Colors" graph. (See Chapter Preparation for details.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Skip Counting by Fives routine. See **Lesson 98** for instructions, if needed.

STUDENTS DO: Participate in the Skip Counting by Fives activity.

Learn (25-30 minutes)

Directions

Note to the Teacher: In this lesson, students move to corners of the room to record their answers to a question. In this way, you can quickly collect data from all students and graph it. The engaging part of the lesson comes from how students analyze the data. Ask questions such as: What is most common? How many more students chose purple than green? Did any colors get the same number of votes? These questions will help students see how a graph is used to record and then display data in a meaningful and useful way.

1. TEACHER SAY: Turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the previous lesson.

TEACHER SAY: I took all of your drawings from our 100th Day and put them in a book called *I Need 100 to Count* that I would now like to read to you.

TEACHER DO: Read the book aloud to students.

👫 **STUDENTS DO:** Listen attentively to the book they created to celebrate 100th Day.

TEACHER SAY: You all did a wonderful job being authors and illustrators.

2. TEACHER SAY: Today, we are going to learn more about graphs and data. First, we are going to participate in an activity called Four Corners. I will choose a graphing question and then pick four different answers. Each answer will have a corner representing that answer. My first question is: Which of these four colors is your favorite? When it is time, if your favorite color is blue, you will go to this corner.

TEACHER DO: Point to the corner with the blue circle.

TEACHER SAY: If your favorite color is green, you will go to that corner.

TEACHER DO: Point to the corner with the green circle.

TEACHER SAY: If your favorite color is purple, you will go that that corner.

TEACHER DO: Point to the corner with the purple circle.

TEACHER SAY: If your favorite color is red, you will go to that corner.

TEACHER DO: Point to the corner with the red circle. Then review all of the colors for each corner.

TEACHER SAY: I know your most favorite color might not be part of our data, but pick which one of these colors you like the most. Are you ready? Move to your favorite color corner.

👫 **STUDENTS DO:** Move to their corners.

TEACHER SAY: Let's count how many students are in each corner. I will record our answers on the chart. Look at your group and count how many people there are.

👫 **STUDENTS DO:** Count the number of students in their corners.

TEACHER DO: Ask students in each corner to share their numbers with the class.

👫 **STUDENTS DO:** Tell the class the total number of students in their corners.

TEACHER DO: Draw circles to represent the number of "votes." Draw blue circles to represent votes for blue, green circles to represent votes for green, and so on. Have students return to their seats to view the graph. Model Think Aloud.

TEACHER SAY: What can we learn from this graph? What do you notice? Give me a Thumbs Up if you can tell us something about the graph.

👫 **STUDENTS DO:** Give a Thumbs Up to volunteer.

TEACHER DO: Call on several different students to share. Make sure they understand what color most students like and what color is the least favorite. Point out that the circles you drew are the same size. It is important to do that so it is easy to compare data.

TEACHER SAY: Let's do it again with a different question. Can someone give us an idea for another graphing question? In our last lesson on graphing, you thought about other things you would like to learn about your classmates. Do you remember those questions? Now is the time to share them. Please raise your hand if you would like to share.

👫 **STUDENTS DO:** Raise their hands. Selected students share their ideas for class data.

Note to the Teacher: Challenge the students to come up with at least one question that has zero as a possible answer. Discuss what it means that you can still graph the number of students who moved to the zero corner, because we graph the number of people who answered, not the number that they answered.

TEACHER DO: When someone has a good, graphable question, do the following:
- **Brainstorm** as a class four categories related to their question that could be included on the graph.
- Teacher creates the graph and lists the categories.
- Teacher assigns each category to a corner.
- Students move to the corners.
- Students count and report the number of students in their corners.
- Students help decide what shape or picture the teacher will draw to represent "votes."
- Teacher records the data on a graph.
- Students return to their seats to analyze the data.
- Students make statements based on the graph.

STUDENTS DO: Move to corners, report the number of students in their corners, decide on a shape for the graph, return to seats, and analyze data.

TEACHER DO: Repeat two or three times, depending on how long each graphing activity takes.

TEACHER SAY: You all are getting so good at graphing that I am going to give you a serious challenge this time. Before you go to the corner for our next graphing activity, I will hand out your math journals. When you get your journal, open it to the page for Lesson 101. This time you will record the data in your journals.

TEACHER DO: Hand out math journals.

STUDENTS DO: Open math journals to the page for **Lesson 101**.

TEACHER SAY: Ready? Move to your corner. Take your journal and your pencil.

STUDENTS DO: Move to the corners that match their answers. Take journals and pencils.

TEACHER DO: Move through the same procedure as above. Students will be recording the same data as the teacher. Slow down and help students organize the data in their journals.

STUDENTS DO: Draw a graph in their math journals.

TEACHER DO: Walk around the classroom and help the students. If multiple students are stuck on the same problem, stop the class and reteach.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please leave your math journals open to your graph to share with the class. We will do a Gallery Walk to see everyone's hard work. When we do a Gallery Walk, we pretend that we are in a museum where important things are on display. We walk slowly to admire the work of others. Today, we will carefully look at each other's graphs.

STUDENTS DO: Walk around and admire each other's work.

TEACHER SAY: That was a big challenge and the kind of work that real mathematicians do. Give yourselves a pat on the back for working hard and a tap on the head for thinking hard. Well done.

STUDENTS DO: Pat backs and tap heads.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compose 10 using two addends.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Sets of Ten Frame Cards (44 cards per set with wild cards removed)
- Sets of 10 counters and a cup (one set per pair of students plus one set for the teacher)

LESSON PREPARATION FOR THE TEACHER

- Gather Ten Frame Cards (one set per pair of students plus one set for the teacher).
- Gather sets of 10 counters in cups (one set per pair of students plus one for the teacher).
- Create a **Twenty Can**. (See Chapter Preparation for details.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER SAY: I have added the numbers 11 through 20 to our Ten Can. It is now a Twenty Can. I will pick a number and we will count to 100 starting at that number.

TEACHER DO: Draw a number from the **Twenty Can**.

TEACHER SAY: I picked the number _____ (number drawn from can). Using the hundreds chart, I will point to each number as we say them starting on _____ (number drawn from can). Ready? Let's begin.

TEACHER DO: Beginning with the number chosen from the can, count to 100 with the class.

STUDENTS DO: Count aloud with the teacher.

☀ Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we worked on in our last math lesson.

👥 **STUDENTS DO:** Share their learning from the last math lesson.

2. TEACHER SAY: Today, we are going to play a new game. It is called Fishing for 10. To play this game, you will need a deck of Ten Frame Cards. You play this game with a partner. Who would like to volunteer to Model how to play this game with me? Please raise your hand if you would like to volunteer.

👥 **STUDENTS DO:** Raise their hands to volunteer. Selected student goes to the front of the room.

TEACHER SAY: Everyone else, please Fishbowl around us. I will shuffle the deck. My partner and I will sit facing each other. Each player gets five cards.

TEACHER DO: Deal five cards to the student and five cards to yourself.

Note to the Teacher: Students can play this game in several different ways. They can hold their cards in their hands or lay the cards face up in front of them. They can also put up a folded piece of paper between their cards and their partner's cards to keep them private. This lesson is written with the students playing with their cards face up. Once they understand how to play the game, you can increase privacy (and therefore strategy) in subsequent lessons.

TEACHER SAY: I stack the remaining cards face down in a pile.

TEACHER DO: Stack the rest of the cards in a deck face down.

TEACHER SAY: Next, my partner and I lay all of our cards face up. We look at our own cards to see if we have any combinations that make 10. I can use my counters if I am unsure.

TEACHER DO: Model looking for combinations of 10 with own cards and with the volunteer's cards.

👥 **STUDENTS DO:** Volunteer checks cards to find combinations that make 10.

TEACHER SAY: If I have any combinations, I put them together and put the pair of cards to the side. Then I draw more cards so that I still have five cards.

👥 **STUDENTS DO:** Volunteer tells the teacher how many cards they need, if any.

TEACHER DO: Put any combinations that make 10 (for example: 0 and 10, 2 and 8, 3 and 7) together in a separate pile. Lay them so everyone can see how many pairs each player has. Help the volunteer do the same, if needed.

TEACHER SAY: Then we take turns asking each other for a card we need that will make 10 with a card we have. For example, I have a _____ (card you are holding). If I add _____ (number that will make 10) to it, I will make 10. Therefore, I ask my partner if they have a _____ (card needed).

TEACHER DO: Ask the volunteer for a card.

TEACHER SAY: Then my partner looks at their cards. If they have the card I asked for, they hand it to me. If they do not have the card, they say, "Go fish," and I have to pick a new card from the deck of unused cards.

👥 **STUDENTS DO:** Check cards to see if they have the card the teacher is looking for. Hand over the card if they have it. Say, "Go fish," if they do not have it.

TEACHER SAY: If I am lucky, I will draw the card I need. Then I can make a 10 and lay down my pair of cards. Sometimes, I will not get the card I asked for, but I still might be able to combine it with one of my other cards to make 10.

TEACHER DO: Take the volunteer's card if they have the right one. Otherwise, take a card from the pile in the middle. If possible, make a 10 and lay down a pair of cards. If you cannot make a pair, it is the volunteer's turn. Do not discard.

Guide the volunteer through taking his/her turn as you continue to **Model** game play for students. Show the students how to use their counters if they need the extra help adding. Play a few rounds to make sure students understand how to play. If a player runs out of cards, have them pick two new ones.

Note to the Teacher: Since students are playing with their cards facing up, each player only gets one turn in a row. If students are holding the cards in their hands (or otherwise hiding them from their opponents) the rules can be changed so students get another turn if they make a pair.

3. TEACHER SAY: Now it is time for you to play the game. You will work with your Shoulder Partner. I will hand out your Ten Frame Cards. There will be one deck per student pair. Please raise your hand if you would also like a set of 10 counters.

TEACHER DO: Distribute materials.

👥 **STUDENTS DO:** Work with their partners to play the game.

TEACHER DO: Walk around to observe students as they work and to offer help, as needed. Check to see if students understand the rules and how to play. Notice what they are using to help them count. Are they using their counters, their fingers, or do they know some of their addition facts for the 10 family? At the end of the lesson, pull **Calling Sticks** to have student volunteers collect supplies.

Share (5-10 minutes)

Directions

1. TEACHER SAY: For Share today, I would like you to think of something that went well during the game. Give me a Thumbs Up when you have an idea.

👥 **STUDENTS DO:** Give a **Thumbs Up**.

TEACHER DO: Call on a student to share. Then repeat the process but ask them what was a challenge.

TEACHER SAY: Wonderful work playing Fishing for 10 today. We will play the game again in our next class.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compose 10 using two addends.

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Sets of Ten Frame Cards (44 cards per set with wild cards removed)
- Sets of 10 counters and a cup (one set per pair of students plus one set for the teacher)
- Paper (one sheet per student)

📅 Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

👥 **STUDENTS DO:** Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

👥 **STUDENTS DO:** Participate in the **Twenty Can** Activity.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we worked on in our last math lesson.

👥 **STUDENTS DO:** Share their learning from the last math lesson.

2. TEACHER SAY: Today, we are going to play Fishing for 10 again. Who would like to help me Model how to play the game today?

TEACHER DO: Go over the steps for the game with a student volunteer. See **Lesson 102** for the procedure. Today, place a piece of paper folded lengthwise between each player's cards, so opponents cannot see each other's cards. You may also adjust the rules so that players who successfully make a pair get a second turn.

TEACHER SAY: For our partners today, we will **Hands Up, Pair Up.**

STUDENTS DO: Hands Up, Pair Up.

TEACHER SAY: I will now hand out decks of cards and privacy paper. Please also raise your hand if you would like counters.

TEACHER DO: Hand out materials.

STUDENTS DO: Fold the paper to create a privacy tent. Play the game.

TEACHER DO: Walk around the classroom to observe students as they work. Check to see if students understand the rules and are playing fairly. Notice what they are using to help them count. Are they using their counters, their fingers, or do they know some of their 10 family facts? At the end of the lesson, pull **Calling Sticks** to have student volunteers collect supplies. Have students keep their folded paper tents for the next lesson. Keep a deck of Ten Frame Cards to take for Share.

Note to the Teacher: Keep a record of how students are counting. Use this record to inform what needs to be retaught or emphasized during the beginning of the next lesson's Learn.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share I will hold up a card and I would like you to show me on your fingers what number I can add to it to make 10. For example, if I held up a 7, you would hold up 3 fingers because 7 and 3 make 10. Ready? Let's go.

TEACHER DO: Hold up a card.

STUDENTS DO: Hold up fingers to show how many more are needed to make 10.

TEACHER DO: Repeat by holding up different cards for as long as time allows.

TEACHER SAY: You all are doing such a good job learning how to combine numbers to make 10. Nice work today.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compose 10 using two addends.

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Sets of Ten Frame Cards (44 cards per set with wild cards removed)
- Sets of 10 counters and a cup (one set per pair of students plus one set for the teacher)
- Folded paper tents

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: Today, we are going to play Fishing for 10 for the last time. Raise your hand if you want to tell us how to play the game.

STUDENTS DO: Raise hands to volunteer. Selected students explain how to play Fishing for 10.

TEACHER SAY: For our partners today, we will Hands Up, Pair Up.

STUDENTS DO: Hands Up, Pair Up.

TEACHER SAY: I will now hand out Ten Frame Cards. Take out the folded paper tents you used in our last math lesson. Raise your hand if you would like counters.

TEACHER DO: Hand out materials.

STUDENTS DO: Play the game.

TEACHER DO: Walk around the classroom to observe students as they work. Check to see if students understand the rules and are playing fairly. Notice what they are using to help them count. Are they using their counters, their fingers, or do they know some of their 10 family facts? At the end of the lesson, pull **Calling Sticks** to have student volunteers collect supplies. Keep a deck of Ten Frame Cards to take for Share.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Today for Share I would like you to turn to your Shoulder Partner. The student with the shorter hair will go first. They will say a number between 0 and 10. The partner will say the number that can be combined with that number to make 10. For example, if I said 5, what should my partner say? Call it out.

STUDENTS DO: Respond together: 5.

TEACHER SAY: Then you will switch roles and the other partner will go first. Let's begin.

STUDENTS DO: Practice finding combinations of two numbers that make 10.

TEACHER SAY: Wonderful work today. In our next class we will see how much you have learned.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compose 10 using two addends.

- Assessment

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Sets of 10 counters and a cup (one set per pair of students plus one set for the teacher)
- Parking lot problems
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- Place a set of 10 addition problems written on sticky notes or index cards around the room. (See Chapter Preparation for additional instructions.) Be sure students can easily find the problems and have a place to put their journals as they write.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

Note to the Teacher: Today's lesson is an assessment of the students' understanding of combining two addends to make 10. This assessment allows students to move around the classroom and answer up to 10 missing addend problems where the sum is always 10. Multiple students can be answering a problem in their journals at the same time. Use your class size and room size to determine the maximum number of students to work on each problem at one time. Students will do an assessment in this style in a future lesson, so take the time to go over the steps.

1. TEACHER SAY: Turn and tell Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: You have all worked hard practicing making 10. Today, we are going to have an assessment to see how much you have learned. An assessment is a test, which helps me

understand what you are learning and what you might need help with. We will take our assessment by playing Parking Lot Math. I have placed 10 math problems around the room.

TEACHER DO: Hold up an example.

TEACHER SAY: This card has an addition problem written on it. Your job is to first find a card. Then, in your math journal, copy the problem, and solve the problem. Find the number that goes in the blank.

TEACHER DO: **Model** how students should notice there is space available at a problem.

TEACHER SAY: Watch me. I read the problem. I write down the problem. The problem is _____ (read the problem out loud).

TEACHER DO: **Model** writing the problem in your math journal.

TEACHER SAY: Then I can use counters or my fingers or just my brain to solve the problem. Once I know the answer, I write it in the blank in my journal.

TEACHER DO: Record answer.

TEACHER SAY: It is called Parking Lot Math because I then pretend to be a car and I have to drive to find a new place to park in front of a different math problem. This is the fun part: You can make car noises while you are looking for a new place to park. If you are using counters, remember to take your counters with you. There can only be _____ (number of students you wish to have at a problem at one time) at a problem at one time. When you finish solving a problem, you will need to look around to find available parking.

TEACHER DO: Make engine noises and move to the next math problem. Verbally repeat the steps for the next problem without solving it.

TEACHER SAY: Now it is your turn. I will hand out your math journals and counters inside cups for each of you. Please turn to the page for Lesson 105 in your math journal. You will record the problems and your answers on that page. Work on as many Parking Lot Math problems as you can today. You may not get to visit all 10. Do your best.

TEACHER DO: Hand out supplies.

STUDENTS DO: Move to first problem and begin working.

TEACHER DO: Monitor students as they are working. Allow students to work until the end of the period. Students who finish early may visit math centers or work with a partner to play a math game.

Note to the Teacher: Note which students are using counters, fingers, or no manipulatives to solve the problems. Observe to see if there are any students using the counting on or subtraction strategies. You can also make notes in their math journals about the ways they are solving the problems. These notes will be a helpful reference for you later when you check their work.

TEACHER DO: Collect all supplies.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Excellent job with Parking Lot Math today. **Turn and Talk** to your **Shoulder Partner** and talk about the work you did today. Did you do the same problems or did you do different ones?

STUDENTS DO: Turn and Talk to their **Shoulder Partners**.

TEACHER SAY: Next time we play Parking Lot Math, maybe you will get to be the teacher and make the parking lot math problems.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to subtract within 10.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

📅 Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

💡 Learn (25-30 minutes)

Directions

1. TEACHER SAY: Turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: Today, we are going to work on subtracting numbers within 10. We have been working on adding and will now transition to subtracting. Let's help our brains by moving our bodies. We are going to play Round Up, but we will use it to help us practice subtraction. Can someone remind us how to play? Raise your hand if you can remember.

STUDENTS DO: Raise their hands. Selected student explains the activity.

TEACHER SAY: If you do not fit in a group when the number is called, sit down near me so you can be my helper. Ready? Round Up 10.

STUDENTS DO: Make circles of 10 students holding hands. Remaining students sit near the teacher.

TEACHE SAY: Now we have groups of 10 students rounded up. I will write our problem on the board.

TEACHER DO: Write 10 on the board.

TEACHER SAY: Now, we will subtract 3. Can 3 people in each circle sit down?

STUDENTS DO: Three students in each circle sit down.

TEACHER DO: Continue writing the problem on the board so it now reads 10 - 3 = _____.

TEACHER SAY: How many students are left standing in your group? Talk to your group and make sure you all agree on the answer. When you do, give me a Thumbs Up.

STUDENTS DO: Count the number of people still standing in their group and give a Thumbs Up when they all agree on the answer.

TEACHER SAY: Can you whisper your answer into the air like little mice?

STUDENTS DO: Whisper: 7.

TEACHER SAY: Great, let's double check. Please count with me as I touch each student standing up on the head. Helpers, make sure I count correctly.

TEACHER DO: Move to one group and count out loud the number of students standing up while touching each student on the head.

TEACHER SAY: Yes, you are right. 10 minus 3 equals 7. I will write 7 on the board to solve our problem.

TEACHER DO: Finish the equation so it now reads: 10 - 3 = 7.

TEACHER SAY: Now that we know how to play this game, let's play it several more times.

TEACHER DO: Repeat the steps above with different subtraction problems, asking students to **Round Up** in varying numbers (up to 10) and then subtract a certain number. Record the problems on the board and remember to double check by counting the students still standing. Play the game until students understand the procedure.

3. TEACHER SAY: Now that we have played Round Up and subtracted long enough for everyone to understand the rules, I will pull a Calling Stick and have one of you be the teacher. You will ask your classmates to Round Up a number between 0 and 10 and then have them subtract another number. You will also be responsible for recording our work on the board.

TEACHER DO: Use a **Calling Stick** to select a student.

STUDENTS DO: Selected student goes to the front of the room to lead the game.

TEACHER DO: Continue playing the game. Use the **Calling Sticks** to let other students come to the front of the room and be the teacher. Help each one record the subtraction problems and answers on the board.

*Note to the Teacher: If students are ready for an extra extension, **Model** how to create story problems to go along with the equations. For example, if you **Round Up** 5, you could say: There were 5 birds sitting on a fence. Two of the birds flew away. How many birds were left?*

Share (5-10 minutes)

Directions

1. TEACHER SAY: **For Share today, I would like you to take out your math journals and open them to the page for Lesson 106. Once you have your journal open to the right page, write your own subtraction problem. Use numbers between 0 and 10, just as we did today in class.**

STUDENTS DO: Take out their journals and open them to the page for **Lesson 106**, then write a subtraction problem.

TEACHER DO: Observe students as they work. When students are finished, give the next set of directions.

TEACHER SAY: **Now, trade math journals with your Shoulder Partner and solve each other's subtraction problem.**

STUDENTS DO: Trade math journals and solve their partner's subtraction problem.

TEACHER SAY: **Wonderful work. In our next math lesson, we will play a game in which you all write subtraction problems and solve them.**

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to subtract within 10.

- No new vocabulary. Reinforce previous vocabulary as needed.

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Materials for students' headbands, including decorative materials
- Sample completed headband
- Stapler or tape to join the ends of students' headband
- Sets of 10 counters and a cup (one set per pair of students plus one set for the teacher)
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- Create a headband strip for each student. (See Chapter Preparation.)
- Gather materials for students to decorate and personalize their headbands. (See Chapter Preparation.)
- Create a model headband with a subtraction problem in the front center of the headband in large numbers. (See Chapter Preparation.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the previous lesson.

2. TEACHER SAY: Today, we are going to play a new subtraction math game called Headband Hop. First, each one of you will get a strip of paper that you will wear like a headband around your head. On this strip of paper, you will write a subtraction problem. You may not use any

numbers greater than 10. You will write the problem, but you will not write the answer. I will use the **Calling Sticks** to pick five volunteers to give us examples of subtraction problems using the numbers 0 to 10.

STUDENTS DO: Selected students give examples of subtraction problems using numbers less than or equal to 10.

TEACHER DO: Write students' equations (unsolved) on the board.

TEACHER SAY: You will need to write the problem large enough so that someone sitting in front of you can see it. Once you have written the problem, you will decorate your headband.

TEACHER DO: Hold up a completed sample of the headband.

TEACHER SAY: This is what my headband looks like. I have written a subtraction problem in large numbers in the front center of my headband. I did not include the answer to the problem. I also decorated it. Once you are finished with your headband, raise your hand and I will fasten your headband so that it fits your head. You can use _____ (materials available) to decorate your headband. Do you have any questions?

STUDENTS DO: Raise hands to ask questions, if needed.

TEACHER DO: Hand out materials.

STUDENTS DO: Create their headbands.

TEACHER DO: Walk around and observe students as they work, offering help as needed. Make sure students have written valid subtraction problems within 10. When students are finished decorating, help them fasten their headbands by putting the ends together with tape or staples.

3. TEACHER SAY: Now that you have all finished designing your headbands, please make sure your name is on it. It is time to play Headband Hop. You will take a pencil and your math journal and walk around the room. When I say Hands Up, Pair Up, you will find a partner. You may move around the room. Hands Up, Pair Up.

STUDENTS DO: Move around the room, then **Hands Up, Pair Up**.

TEACHER DO: Put students in groups of three if needed.

TEACHER SAY: Sit in front of your partner. You will record their headband problem in your math journal and then solve the problem. I need two student volunteers to Model how we will do the Headband Hop. The rest of the class will Fishbowl around and watch.

STUDENTS DO: Raise hands to volunteer. Selected students go to the front of the class with their math journals and wearing their headbands while the rest of the class **Fishbowl**s.

TEACHER DO: Coach students through turning to the page for **Lesson 107** in their math journal, recording their partner's problem, and then solving it and recording the answer.

TEACHER SAY: Let's give our volunteers a round of applause.

STUDENTS DO: Applaud the volunteers.

TEACHER SAY: I have 10 counters in a cup available if you would like to use them to help you solve the problems. Raise your hand if you would like me to bring you counters.

STUDENTS DO: Raise their hands if they need counters.

TEACHER DO: Hand out counters as needed.

STUDENTS DO: Record their partner's subtraction problem in their journals. Solve the problem and record the answer.

TEACHER DO: Walk around and monitor students as they work.

TEACHER SAY: Thank your partner. We will now Headband Hop to a different partner. You may move around the room.

STUDENTS DO: Move around the room.

TEACHER SAY: Hands Up, Pair Up.

STUDENTS DO: Hands Up, Pair Up.

TEACHER DO: Walk around the room to observe students as they work. Offer help when needed and note how students are solving problems. Let them Headband Hop to as many partners as time allows. They will play this game during the next class as well, so learning the rules is an important step. Collect materials and keep headbands available for the next class.

Note to the Teacher: Consider making a few extra headbands for the next class if students do not have enough variety or if the student-created ones are difficult to read.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Let's talk about what we worked on in class today. I am going to use ordinal numbers. What did we do first?

STUDENTS DO: Raise hands to volunteer. Selected student explains what they did first.

TEACHER SAY: What did we do second?

STUDENTS DO: Raise hands to volunteer. Selected student explains what they did second.

TEACHER DO: Continue this process until students have explained all the steps or lesson time has expired.

TEACHER SAY: You did wonderful work today playing Headband Hop. We will come back to this game during our next math class.

Note to the Teacher: This Share activity is a great way to review ordinal numbers and can be applied throughout the curriculum. Students can review the steps down or the order of instructions.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to subtract within 10.

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Materials for Headband Hop, including sample completed headband
- Sets of 10 counters and a cup (one set per pair of students plus one set for the teacher)
- Math journal and pencil

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

Note to the Teacher: Today's lesson allows the students to practice the games they played in the last couple of lessons. Notice if subtraction becomes easier for the students as they repeat these activities. Since they understand the expectations of the games, they should be able to focus more easily on the math content.

1. TEACHER SAY: We are going to begin today's lesson by playing Round Up with subtraction like we did in our last class. Touch your nose if you can remind us how we played the game.

STUDENTS DO: Touch their noses to share. Selected student explains the steps.

TEACHER DO: See **Lesson 107** for a review, if needed. Begin the game by choosing a volunteer with a **Calling Stick**. That student will take on the teacher role.

TEACHER SAY: Let's begin. I will pick a student volunteer with a Calling Stick.

👥 **STUDENTS DO:** Play **Round Up** with subtraction.

TEACHER DO: Monitor the game and help students record their equations on the board. Play several rounds of the game to allow many students to be the teacher. After 10 to 15 minutes, move on to Headband Hop.

2. TEACHER SAY: Today, we are also going to play Headband Hop again. I will hand out your math journals and headbands from yesterday.

👤 **TEACHER DO:** Hand out headbands and math journals.

TEACHER SAY: Remember, when I say **Hands Up, Pair Up**, you will find a partner. Find someone you have not worked with yet during this game. Then you will sit in front of your partner. You will record their headband problem in your math journal on the page for Lesson 108 and then solve the problem.

TEACHER DO: If necessary, have student volunteers review how to play Headband Hop. If you do not think it is necessary, skip the review and go directly to game play.

TEACHER SAY: Are there two student volunteers who would like to **Model** how we will work once we are in our partner groups? The rest of the class will **Fishbowl** around and watch.

👥 **STUDENTS DO:** Volunteer to **Model**.

TEACHER DO: Have two students come to the front of the class with their math journals and wearing their headbands while the rest of the class **Fishbowl**s. Coach them through turning to the correct page in their math journal, recording their partner's problem, and then solving it and writing down the answer.

TEACHER SAY: Let's give our volunteers a round of applause.

👥 **STUDENTS DO:** Applaud their classmates.

TEACHER SAY: Please raise your hand if you would like me to bring you counters.

👥 **STUDENTS DO:** Raise their hands if they need counters.

TEACHER SAY: Remember to take your pencil and math journal with you while you prepare to **Hands Up, Pair Up**. Please begin walking around the room.

👥 **STUDENTS DO:** Move around.

TEACHER SAY: Hands Up, Pair Up.

👥 **STUDENTS DO:** Create partner groups.

TEACHER DO: Put students in a group of three, if needed. Monitor students as they work.

TEACHER SAY: Thank your partner. We will now Headband Hop to a different partner. You may move around the room.

👥 **STUDENTS DO:** Move around the room.

TEACHER SAY: Hands Up, Pair Up.

👥 **STUDENTS DO:** Create partner groups.

TEACHER DO: Continue to monitor students as they work. Allow students to Headband Hop to as many partners as time allows. When finished, collect the materials.

Note to the Teacher: Offer help when needed and note how students are solving problems, including what types of strategies they are using. Record this informal assessment in their math journals or in teacher notes.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Think about playing Round Up with subtraction and Headband Hop. Was it easier to play them today than it was before? I would like to hear your thinking.

TEACHER DO: Give students Think Time.

TEACHER SAY: Raise your hand if you would like to share and explain your thinking.

STUDENTS DO: Raise their hands to share. Selected students share their opinions and their reasoning.

TEACHER DO: Call on several students. If it is not brought up by students, remind them that when we practice new skills, those skills become easier and we grow as learners.

TEACHER SAY: Nice work today practicing something new and growing as learners.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to add and subtract within 10.

- No new vocabulary. Reinforce previous vocabulary.

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Cups with counters (10 per student and 10 for the teacher)
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today, we are going to get ready for the assessment we will do tomorrow. Remember that an assessment is a chance for you to show what you know so you and I can see your thinking and how you have grown as math learners. First, we will review all that we know about addition and subtraction. Second, you will get a chance to help me write the parking lot problems for our Parking Lot Math assessment. For our assessment, we will be adding and subtracting. Since you will be adding and subtracting today, you have to pay special attention to what the problem is asking you to do. Raise your hand if you want counters.

STUDENTS DO: Raise hands if they want counters.

TEACHER DO: Hand out cups with 10 counters in them.

TEACHER SAY: I will write a problem on the board. Use your counters if you need them to help you solve it. When you think you have an answer, turn to your Shoulder Partner and see if they agree. Your first problem is 3 plus 4.

TEACHER DO: Write 3 + 4 = _____ on the board.

STUDENTS DO: Solve the problem and check with their partners to see if they agree on the answer.

TEACHER DO: Call on a student to share their answer and explain their thinking. Repeat this process with additional problems like the examples listed below:

- 10 - 2 = _____
- 4 + 4 = _____
- 5 - 2 = _____
- 10 - 0 = _____
- 8 + 2 = _____
- 6 - 1 = _____
- 9 - 4 = _____
- 3 + 5 = _____
- 7 - 5 = _____

Create additional problems if students need more practice moving between subtraction and addition.

TEACHER SAY: Great job warming up your brains. Do I have a brave student who would like to create a problem for us all to solve? It can be addition or subtraction. Please raise your hand if you would like to volunteer.

STUDENTS DO: Raise their hands to volunteer. Selected student suggests addition or subtraction problems.

TEACHER DO: Record student's problem on the board and have the class solve it. Ask for additional students to share both addition and subtraction problems. Leave several problems on the board.

2. TEACHER SAY: Now, I will hand out your math journals and you will create and solve your own math problems. Your challenge is to work with your Shoulder Partner to write and answer five addition problems and five subtraction problems. Remember to write the problems and the answers in your own math journal.

TEACHER DO: Hand out math journals.

TEACHER SAY: Please turn to the page for Lesson 109. Remember, you can use your counters to help you and you may not use any numbers greater than 10. If you really need help, you can use the ones on the board to help you. You can also think about what you wrote on your headband or look back at the problems in your math journal.

STUDENTS DO: Work in pairs to create and solve problems.

TEACHER DO: Walk around and check students' work. If they create a problem with an answer that is greater than 10, see if they are able to solve it and note how. If they are unsure, suggest that they put their counters together.

Share (5-10 minutes)

Directions

1. TEACHER SAY: Hold up all of your math journals and show the rest of the class your hard work.

STUDENTS DO: Hold up their math journals.

TEACHER SAY: What was difficult today? Why was it difficult? Raise your hand if you would like to share something difficult.

STUDENTS DO: Raise their hands. Selected students discuss things they found difficult.

TEACHER SAY: What was easy today? Why was it easy? Raise your hand if you would like to share something easy.

STUDENTS DO: Raise their hands. Selected students discuss things they found easy.

TEACHER SAY: You all showed creative thinking and problem solving today. I cannot wait to take your problems and use them to create tomorrow's assessment.

Note to the Teacher: Collect students' math journals and review their equations. Select 10 problems (five addition and five subtraction) to use in the assessment for **Lesson 110**.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Apply strategies to add and subtract within 10.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- Sets of 10 counters (one set per student)
- Example parking lot problem
- Student parking lot problems
- Math journal and pencil

LESSON PREPARATION FOR THE TEACHER

- Place a set of 10 addition problems written on sticky notes or index cards around the room. (See Chapter Preparation for additional instructions.) Be sure students can easily find the problems and have a place to put their journals as they write.
- Create a model problem of 7 + 2 = 9 on the same sticky notes, index cards, or A4 paper.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: I really enjoyed reading all of the problems that you and your partner wrote yesterday. You have worked so hard on addition and subtraction. I picked 10 of the problems you wrote, created parking lot problems, and placed them around the room.

TEACHER DO: Hold up an example parking lot problem.

TEACHER SAY: Remember, this card is a parking lot problem. Your job is to find a parking lot problem, write the problem in your journal, and then solve the problem.

TEACHER DO: Using your example parking lot problem, **Model** how students should find a parking lot problem and work on it.

TEACHER SAY: **First, I write down the problem. The problem is 7 + 2 = _____.**

TEACHER DO: Write the problem in the math journal.

TEACHER SAY: **If I need them, I can use my counters to help me solve the problem.**

TEACHER DO: **Model** how to count out the first number with the counters while touching each one. Then count out the second number with the counters while touching each one. Then count all of the counters together.

TEACHER SAY: **This is an addition problem, so I know I have to make two groups of counters and put them together. When I count them, I see that 7 plus 2 equals 9. I then write my answer in my math journal.**

TEACHER DO: **Model** how to record answer.

TEACHER SAY: **Once I am done, I pretend to be a car and drive to find a new place to park in front of a different parking lot problem. You can make quiet car noises while you are looking for a new place to park. Remember to take your counters with you. We can park no more than _____ (number of students allowed at each problem) cars at each parking lot problem. You will not all be moving at the same time, so you need to look around to find available parking. Do you have any questions?**

STUDENTS DO: Raise hands to ask questions, if needed.

TEACHER DO: Answer students' questions. Hand out counters, cups, and math journals and have students turn to the page for **Lesson 110**.

STUDENTS DO: Turn to the page for **Lesson 110** in their math journals.

TEACHER SAY: **Ready? Find a parking lot problem and begin working.**

STUDENTS DO: Move to their first parking lot problem and begin working. Once they have solved and recorded a problem, they move to the next one until the teacher signals for them to stop.

TEACHER DO: Walk around and monitor students while they are working. Notice how many are using counters. At the end of the lesson, collect all supplies and students' math journals. When you have time, check their work.

Share (5-10 minutes)

Directions

1. TEACHER SAY: First, I think you all need to give yourselves a big round of applause.

STUDENTS DO: Clap for themselves and each other.

TEACHER SAY: You have done something really extraordinary today. Not only have you worked hard on adding and subtracting within 10, but you have also helped make your own assessment. You are taking control of your own learning. The best part about learning new things is that it is something you can always do. You can add and subtract inside a classroom or on your own when you are home. Your challenge is to find someone—a friend, neighbor, or sibling—and teach them all that you know about addition and subtraction. We will check in during our next math class and see if anyone was able to teach someone else. Great work today.

KINDERGARTEN II

Mathematics

Chapter 6

Lessons 111-120

Lessons 111-120

COMPONENT	DESCRIPTION	TIME
Calendar and Movement	During this daily routine, students develop number sense, calendar sense, early place value concepts, counting fluency, and problem-solving skills. Students explore quantity and practice counting through patterns and movement.	15-20 minutes
Learn	During this daily routine, students learn and apply various math skills as the teacher guides them through review, instruction, and practice.	25-30 minutes
Share	During this daily routine, students develop their ability to express mathematical ideas by talking about their discoveries, using math vocabulary, asking questions to make sense of learning tasks, clarifying misconceptions, and learning to see things from other students' perspectives.	5-10 minutes

Learning Indicators

Throughout this chapter, students will work toward the following learning indicators:

OPERATIONS AND ALGEBRAIC THINKING
- Add or subtract within 20 using strategies such as
  - Using objects or drawings to represent a problem.
  - Decomposing numbers into pairs in more than one way (e.g., 5=2+3 and 5=4+1).
  - Finding the number that makes 10 when added to any number 1 to 9.
- Fluently add and subtract within 10.

NUMBERS AND OPERATIONS IN BASE TEN
- Compose and decompose numbers from 11 to 19 into 10 and some unit/ones using objects or drawings. For example, 12 means 10 and 2; 15 means 10 and 5.

MEASUREMENT
- Compare orally between length, weight, and size using longer than/shorter than, heavier/lighter, bigger/smaller.
- Collect and classify data using objects and drawings (up to 20).
- Classify objects into given categories (for example: length, weight, size, color) and sort categories by count.

LESSON	INSTRUCTIONAL FOCUS
111	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare lengths using the terms longer and shorter. • Apply strategies to compose and decompose 11.
112	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare lengths using the terms longer and shorter. • Apply strategies to compose and decompose 12.
113	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare weights using the terms heavier and lighter. • Apply strategies to compose and decompose 13.
114	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare weights using the terms heavier and lighter. • Apply strategies to compose and decompose 14.
115	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare the weights of three items. • Apply strategies to compose and decompose 15.
116	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare sizes using the terms bigger and smaller. • Apply strategies to compose and decompose 16.
117	**Students will:** • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare sizes using the terms bigger and smaller. • Apply strategies to compose and decompose 17.

LESSON	INSTRUCTIONAL FOCUS

118

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare and order three quantities from least to greatest.
- Apply strategies to compose and decompose 18.

119

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare and order three quantities from least to greatest.
- Apply strategies to compose and decompose 19.

120

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Sort objects by color.
- Apply strategies to compose and decompose 20.

Chapter Preparation

Note to the Teacher: The following items will be used in some form throughout the chapter daily. Careful preparation of them in advance is necessary for successful implementation of daily lessons.

- For **Lesson 111**:
  - Gather four pairs of objects (eight objects total). You will show students the objects in pairs. They will compare the lengths of the objects to identify the longer object and the shorter object. Select items that are not close in length, so students can clearly see the differences from their seats.
  - Create a line on the floor using colored tape or a piece of yarn. The line should be long enough for a group of up to 20 students to gather on one side or the other. You will use this line in subsequent lessons.
  - Create a magic math problem line paper for each student using construction paper or another kind of heavy paper or light cardboard. Turn the paper so it is longer horizontally than it is vertically. Use a marker to draw a line down the center (or use colored tape to split the paper into two sections) to create a magic math problem line. Students will use this resource in subsequent lessons.
  - Gather sheets of loose paper for the books students are creating: *I Am a Master Mathematician*. Students will create one page each day throughout this chapter.
  - Use students' previous work to help you identify students who would benefit from additional instruction, additional challenge, partnering with a peer, or modified instructions. Consider the following ideas for differentiating instruction for students who need challenge or support:
    - * Have struggling students create drawings of the math problems instead of writing equations.
    - * Have struggling students work with a partner who is excelling.
    - * Students who are ready for a challenge could try to create more addition problems, subtraction problems, or story problems with the daily number.

- For **Lesson 112**:
  - Have available one box of new, unused pencils.

- For **Lesson 113**:
  - Gather different pairs of objects that students can use to compare weights (for example: eraser, book, rock, feather, paper clip, or shoe). You will need two objects per small group of students, plus two for the teacher demonstration.
    * Students will work in small groups to compare the weights of two items using their sense of touch.

- For **Lesson 114**:
  - Gather additional pairs of objects that students can use to compare. Swap out some of the objects students compared in the previous lesson. You will need two objects per small group of students, plus two for the teacher demonstration.
    * Students will work in small groups to compare the weights of two items using their sense of touch.

- For **Lesson 116**:
  - Gather five different pairs of objects that students can use to compare size. The objects in each pair should be visibly different in size. Objects can be things found around a house or in a school, such as a plush toy, marker, coat, pen, hat, and barrette.

- For **Lesson 118**:
  - Gather one cup for each student. Inside each cup place one to five counters. Try to make an equal number of each cup/quantity (for example: five cups with one counter, five cups with two counters, five cups with three counters, and so on).

- For **Lesson 120**:
  - Give each student an object that is either red, blue, green, yellow, or orange. These objects can be crayons, markers, or other colorful objects.
  - Create a title page for students' books. The title should read: *I Am a Master Mathematician* and have a line at the bottom with a place for students to write their names.
  - Organize students' book pages into piles, sorted by student. Use paper clips, sticky notes, or other methods to separate and organize the pages.

Teaching Strategies Used

See pages 3-5 of this guide for detailed instructions.

- **Calling Sticks**
- **Fishbowl**
- **Hands Up, Pair Up**
- **Model**
- **Shoulder Partner**
- **Thumbs Up**
- **Twenty Can**
- **Turn and Talk**
- **Round Up**
- **Pair Up, Share Up**

Materials Used

Calendar math area

Math journal and pencil

Play money in denominations of 1 LE, 5 LE, 10 LE, and 20 LE

Sets of 20 counters (one per student)

Extra paper

Twenty Can

Four pairs of objects for comparing lengths

1 box of new, unsharpened pencils

2 used pencils of different lengths

Pairs of objects for comparing weights

Pairs of objects for comparing sizes

Cups with 1 to 5 counters

Poster paper or chart paper

Stapler or tape

Ten frame
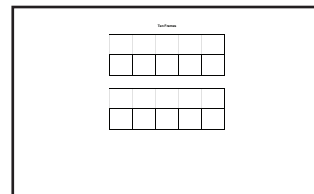
Objects for students to sort by color (one object per student)
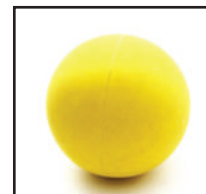
LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare lengths using the terms longer and shorter.
- Apply strategies to compose and decompose 11.

KEY VOCABULARY

- Equation
- Length
- Longer
- Shorter

MATERIALS

- Calendar Math Area
- Ten frame
- **Twenty Can**
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Four pairs of objects for comparing lengths
- Sets of 11 counters (one set per student)
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Gather four pairs of objects to compare length. (See Chapter Preparation for details.)
- Place a magic math problem line on the floor. (See Chapter Preparation for details.)
- Prepare a magic math problem line paper for each student. (See Chapter Preparation for details.)
- Gather sheets of loose paper for the books students are creating: *I Am a Master Mathematician.*

📅 Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

👥 **STUDENTS DO:** Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

👥 **STUDENTS DO:** Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

👥 **STUDENTS DO:** Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Turn and tell your Shoulder Partner what we worked on in our last math lesson.

👥 **STUDENTS DO:** Share their learning from the last math lesson.

2. TEACHER SAY: Today we are going to review something we learned earlier in the year. When we review something, we look at it again. I would like us to review the words longer and shorter. I will draw two lines on the board.

TEACHER DO: Draw two lines on the board with the same starting point. Make one line longer than the other.

TEACHER SAY: These lines start at the same place. Which one is longer? Turn and Talk to your Shoulder Partner about which line is longer.

👥 **STUDENTS DO:** Talk to their partners.

TEACHER SAY: I am going to use the Calling Sticks to select a volunteer to come to the board and point to the line that is longer.

👥 **STUDENTS DO:** Selected student goes to the front of the room and points to a line.

TEACHER SAY: How do you know that line is the longer line?

👥 **STUDENTS DO:** Selected student explains their thinking.

TEACHER DO: Correct any misconceptions the student may have if they chose the incorrect line. Praise correct responses and explanations that use math vocabulary.

TEACHER SAY: Thank you, _____ (student's name). Please go back to your seat.

👥 **STUDENTS DO:** Volunteer sits.

TEACHER SAY: I have four pairs of objects. I will hold up one pair in front of you so that you can all see it.

TEACHER DO: Hold up two objects so students can compare their lengths. Whether you hold the objects up or set them down, be sure both objects have the same starting point.

TEACHER SAY: Using your eyes, see if you can determine which object is the longer object.

👥 **STUDENTS DO:** Quietly look at objects to determine which is the longer object.

TEACHER SAY: You will now show your answers by moving your bodies. When I say go, you will jump in the air if you think this object is the longer object.

TEACHER DO: Point to the first object.

TEACHER SAY: You will clap your hands when I say go if you think this one is the longer object.

TEACHER DO: Point to the second object.

TEACHER SAY: Ready and go.

👥 **STUDENTS DO:** Jump in the air or clap their hands.

TEACHER SAY: Raise your hand if you would like to explain your choice and why you think that object is the longer object.

STUDENTS DO: Raise hands to volunteer. Selected students explain their choice and their reasoning.

TEACHER SAY: Good work. Repeat after me: The _____ (name of longer object) is the longer object.

STUDENTS DO: Repeat after the teacher.

TEACHER SAY: The _____ (name of shorter object) is the shorter object.

STUDENTS DO: Repeat after the teacher.

TEACHER DO: Repeat the procedure with the rest of the objects, using the words longer and shorter each time.

STUDENTS DO: Compare the remaining objects using the terms longer and shorter with accuracy. Explain their reasoning.

3. TEACHER SAY: You have been working so hard all year long in our math lessons. Think about what you knew about math in the beginning of the school year and how much more you know now. You are amazing. For our final project, you will put all of the skills that you have learned as mathematicians, writers, readers, and artists and into your very own book. It will be titled, *I Am a Master Mathematician*. Each day for the next 10 days, you will write a new page of your book. Each page will show a number and ways to make the number using numbers and pictures. Today's number will be 11.

TEACHER DO: Write the number 11 on the board.

TEACHER SAY: I will use the Calling Sticks to have 11 students come to the front of the room.

STUDENTS DO: Selected students go to the front of the room.

Note to the Teacher: Students will create equations with their bodies daily during this chapter. If at any point the number is greater than the number of students in the class, use counters instead for the activity.

TEACHER SAY: I have made a magic math problem line on the floor to show where we can separate a number into two groups.

TEACHER DO: Point to the line on the floor.

TEACHER SAY: First, I will ask all 11 students to move to one side of the magic math problem line.

STUDENTS DO: Selected students move to one side of the line.

TEACHER SAY: Let's count the students on this side of the magic math problem line. Please count with me as I gently tap each student on the head.

TEACHER DO: Gently tap each student as you count aloud to 11.

STUDENTS DO: Count aloud with the teacher.

TEACHER SAY: We have 11 students on this side of the magic math problem line. How many students do we have on the other side of the line? Can you whisper your answer into the air?

STUDENTS DO: Whisper: 0.

TEACHER SAY: That is correct. We have 0 students on this side of the line. If I were going to write a math problem to show this, I could write 11 + 0 = 11.

TEACHER DO: Write 11 + 0 = 11 on the board.

TEACHER SAY: Now we are going to make it into a game. I will look at my group of 11

students and say: Math maker, math maker, it is math problem time. Send _____ (student's name) and _____ (another student's name) over the line.

Note to the Teacher: Have fun with this. Use a silly accent, sing the words, or make it like a magic spell.

👥 **STUDENTS DO:** Selected students move to the other side of the line.

TEACHER SAY: Now, we have a new problem. To create our math problem, we need to count how many students are on both sides of the magic math problem line. Count with me as I tap and count the first group.

TEACHER DO: Move to the group of two. Tap each student while counting aloud.

👥 **STUDENTS DO:** Count aloud with the teacher.

TEACHER SAY: We have two students on this side of the magic math problem line. I will write a 2 on the board as the first part of my magic math problem.

TEACHER DO: Write a 2 on the board. Then repeat the process with the students on the other side of the line.

👥 **STUDENTS DO:** Count aloud to 9 with the teacher.

TEACHER SAY: We have 9 students in this group. How many students do we have all together? Do you remember?

👥 **STUDENTS DO:** Respond together: 11.

TEACHER DO: If students do not remember the total number of volunteers, count them aloud together.

TEACHER SAY: I can now finish the math problem on the board.

TEACHER DO: Write $2 + 9 = 11$ on the board. Play at least one more round, creating a new math problem by changing the number of students who cross the magic math problem line.

4. TEACHER SAY: It is your turn. I will hand out 11 counters and a sheet of paper that has a magic math problem line. You will use your magic math problem line just like we used the one on the floor. It will help you to see your math problems.

TEACHER DO: Hand out counters and magic math problem line papers.

TEACHER SAY: Now I will give you your first sheet of paper for your book.

TEACHER DO: Hand out paper to students.

TEACHER SAY: Write the number 11 at the top of the paper, right in the center.

👥 **STUDENTS DO:** Write 11 at the top center of their papers.

TEACHER SAY: You will write your magic math problems on this sheet of paper. Today's number is 11, so you will use your counters and your magic math problem line to create and solve math problems, just as we did together at the beginning of the lesson. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 11. That means you can record more than five problems, but not fewer than five problems. Who has questions?

👥 **STUDENTS DO:** Raise hands to ask questions.

TEACHER DO: Answer students' questions. Make sure all students understand the assignment before they begin working. If you have made modifications to the assignment for students who need additional instruction or challenge, take those aside to explain the directions they will follow. (Taking them aside helps minimize distraction and allows other students to begin working.)

STUDENTS DO: Work on finding and recording ways to compose 11.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please make sure your name is on the back of your paper. For Share today, I would like you to talk to your Shoulder Partner and show him or her your work.

STUDENTS DO: Share their work with their **Shoulder Partners**.

TEACHER SAY: Give yourselves a pat on the back for completing the first page of your *I Am a Master Mathematician* book. Tomorrow we will work on another page.

STUDENTS DO: Pat backs.

*Note to the Teacher: Collect and store students' book pages. Use paper clips, sticky notes, or another method to separate and organize students' pages. Each day you will add pages to the piles (and will return all pages to students during **Lesson 120**), so it is wise to maintain organization each day. Look through the students' work to find quality examples to share with students in the next lesson. Students will create their final books in **Lesson 120**.*

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare lengths using the terms longer and shorter.
- Apply strategies to compose and decompose 12.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- **Twenty Can**
- One box of new, unsharpened pencils
- Two used pencils of different lengths
- Sets of 12 counters (one set per student)
- Four pairs of objects for comparing lengths
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Have available one box of unsharpened, new pencils.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete **Twenty Can** Activity. See **Lesson 102** for instructions, if needed.

STUDENTS DO: Participate in the **Twenty Can** Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: **Please turn and tell your Shoulder Partner what we worked on in our last math lesson.**

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: **Today, before we continue working on our books, we are going to practice comparing the lengths of objects. What words do we use when we are comparing lengths? Give me a Thumbs Up if you know.**

STUDENTS DO: Give a **Thumbs Up** if they know. Selected students answer: long, short, longer, and shorter.

TEACHER SAY: Good. We are going to play a game using those words. It is called Pencil Share, Pencil Compare. When I buy a box of new pencils, they are all the same length.

TEACHER DO: Show students a box of new pencils. Pull them out and compare their lengths.

TEACHER SAY: But as the school year goes on, the pencils all become different lengths.

TEACHER DO: Hold up two used pencils of varying lengths.

TEACHER SAY: Why do you think the lengths of the pencils change? Why do they become shorter? Turn and Talk to your Shoulder Partner.

STUDENTS DO: Talk to their **Shoulder Partners**.

TEACHER SAY: Raise your hand if you think you know why you think pencils get shorter over time.

STUDENTS DO: Raise their hands. Selected students share their thinking.

TEACHER DO: Accept all reasonable answers. Make sure students understand that as we work with pencils, we have to sharpen them, which makes them shorter. You can also discuss that as we make mistakes and use the erasers, they get shorter, too.

TEACHER SAY: Great thinking. To play Pencil Share, Pencil Compare, everyone will grab their pencil. You will walk slowly around the room. When I say Hands Up, Pair Up, you will sit down with a partner. Once you are with your partner, you will compare the lengths of your pencils. Together, figure out which pencil is longer and which is shorter. I will pull two Calling Sticks to have volunteers demonstrate what you will do with your partner.

TEACHER DO: Use **Calling Sticks** to pick two classroom volunteers.

TEACHER SAY: _____ (First helper) and _____ (second helper), please come to the front of the class and bring your pencils with you.

STUDENTS DO: Helpers go to the front of the classroom with their pencils.

TEACHER SAY: Our two friends will compare their pencils to see which one is longer and which one is shorter. How might you two do that?

STUDENTS DO: Helpers explain how they can compare their pencils.

TEACHER DO: Make sure student helpers know how to line up their pencils with the same starting point.

TEACHER SAY: If you have the longer pencil, hold it in the air.

STUDENTS DO: Helper with the longer pencil holds it in the air.

TEACHER SAY: Great. Now if you have the shorter pencil, hold it in the air.

STUDENTS DO: Helper with the shorter pencil holds it in the air.

Note to the Teacher: At some point in this game, students may have pencils that are the same length. If so, add, "If you have pencils that are the same length, hold them in the air," as another option.

TEACHER SAY: Great job. Let's give a round of applause to our helpers as they go back to their seats. Now it is your turn to play. After you have partnered up and compared, I will say "Pencil Share" to get your attention. You will say "Pencil Compare" to show me that I have your attention. Once everyone is silent, I will ask you questions. We will work together step by step. Please begin by picking up your pencils and standing up.

STUDENTS DO: Stand up with their pencils.

TEACHER SAY: Begin slowly walking around the room.

STUDENTS DO: Slowly walk around the room.

TEACHER SAY: Hands Up, make sure the hand up is empty. Your pencil is in the other hand, Pair Up. Please find a partner and sit down together.

STUDENTS DO: Sit down with their partners.

TEACHER SAY: Compare the lengths of your pencils to see which one is longer and which one is shorter. Remember to line them up so they have the same starting point.

STUDENTS DO: Compare the lengths of their pencils.

TEACHER SAY: Pencil Share.

STUDENTS DO: Say, "Pencil Compare," and stop talking.

TEACHER SAY: If your pencil is longer than your partner's pencil, please hold it in the air.

STUDENTS DO: Hold pencils up if they are longer than their partner's.

TEACHER SAY: Put your hands down. If your pencil is shorter than your partner's pencil, please hold it in the air.

STUDENTS DO: Hold pencils up if they are shorter than their partner's.

TEACHER SAY: Great, let's play another round. Everyone, stand up and begin walking around the room.

TEACHER DO: Play several rounds of this game. Make sure that students find a way to have the same starting point for their pencils. They could do this by standing the pencils side by side vertically with the erasers touching the floor or by laying them down and lining up the erasers or points.

3. TEACHER SAY: Before we begin working on our books, I want to show you some examples of the good work our class has done so far.

TEACHER DO: Hold up exemplary work.

TEACHER SAY: Look at this page and raise a hand if you see something these students did well.

STUDENTS DO: Raise their hands to volunteer. Selected students share their thinking.

TEACHER DO: Add anything important students missed. Repeat with three to four examples, if possible.

4. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician*, and apply what you learned from those great examples. Today's number is 12.

TEACHER DO: Write the number 12 on the board.

TEACHER SAY: I will use the Calling Sticks to have 12 students come to the front of the room.

TEACHER DO: Use the Calling Sticks to pick volunteers.

TEACHER SAY: Remember, I made a magic math problem line on the floor to show where we can separate a number into two groups.

TEACHER DO: Point to the line on the floor.

TEACHER SAY: First, I will ask all of the students to move to one side of the magic math problem line.

STUDENTS DO: Move to one side of the line.

TEACHER SAY: Let's count the students on this side of the magic math problem line. Please count with me as I gently tap each student on the head.

TEACHER DO: Gently tap each student on the head as you count aloud.

STUDENTS DO: Count aloud with the teacher.

TEACHER SAY: Twelve. We have 12 students on this side of the magic math problem line. How many students do we have on the other side of the line? Can you whisper your answer into the air?

STUDENTS DO: Whisper: 0.

TEACHER SAY: That is correct. We have 0 students on this side of the line. If I were going to write a math problem to show this, I could write 12 plus 0 equals 12.

TEACHER DO: Write 12 + 0 = 12 on the board.

TEACHER SAY: We are going to make our work into a game, as we did yesterday. I will look at my group of 12 students and say: Math maker, math maker, it is math problem time. Send _____ (first student's name), _____ (second student's name), and _____ (third student's name) over the line.

Note to the Teacher: Have fun with this. Use a silly accent, sing the words, or make it like a magic spell.

STUDENTS DO: Selected students move to the other side of the line.

TEACHER SAY: Now, we have a new math problem. We need to count how many students are on both sides of the magic math problem line. Count with me as I tap and count the first group.

TEACHER DO: Move to the group of three. Tap each child while counting aloud.

STUDENTS DO: Count aloud with the teacher.

TEACHER SAY: We have three students on this side of the magic math problem line. I will write a 3 on the board as the first part of my magic problem.

TEACHER DO: Write a 3 on the board. Then repeat the process with the students on the other side of the line. Count 9 students aloud.

TEACHER SAY: We have 9 students in this group. I will now finish the problem on the board. 3 plus 9 equals 12.

TEACHER DO: Write 3 + 9 = 12 on the board. Play at least one more round by repeating the process but changing the number of students to come across the magic math problem line.

5. TEACHER SAY: Now it is your turn. I will give each of you 12 counters and a magic math problem line paper.

TEACHER DO: Hand out counters and magic math problem line paper.

TEACHER SAY: Next, I will hand out your second piece of paper for your book. When you get your paper, write the number 12 at the top of the paper right in the center.

STUDENTS DO: Write 12 at the top center of their papers.

TEACHER SAY: You will write your magic math problems on this sheet of paper. Today's number is 12, so you will use your counters and your magic math problem line to create and

solve math problems, just as you did yesterday. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 12. That means you can record more than five problems, but not fewer than five problems. Who has questions?

STUDENTS DO: Raise hands to ask questions.

TEACHER DO: Answer students' questions. Make sure all students understand the assignment before they begin working. If you have made modifications to the assignment for students who need additional instruction or challenge, take those aside to explain the directions they will follow. (Taking them aside helps minimize distraction and allows other students to begin working.)

STUDENTS DO: Work on finding and recording ways to compose 12.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please make sure your name is on the back of your paper. For Share today, talk to your Shoulder Partner and show them your work.

STUDENTS DO: Share their work with their **Shoulder Partners**.

TEACHER SAY: Who would like to share one of their problems with the class? Please raise your hand if you would like to share.

STUDENTS DO: Raise their hands to share. Selected students write their problems on the board.

TEACHER DO: Check volunteers' work with the class using counters.

TEACHER SAY: Wonderful work today. Your book now has two pages.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare weights using the terms heavier and lighter.
- Apply strategies to compose and decompose 13.

KEY VOCABULARY

- Heavier
- Lighter
- Weight

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 13 counters (one set per student)
- Pairs of objects for comparing weights (one pair per small group of students)
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Gather pairs of objects for comparing weights. (See Chapter Preparation for details.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Before we continue to work on our books, we are going to practice comparing objects by weight. Give me a Thumbs Up if you remember the words we use when we compare weights.

STUDENTS DO: Give a **Thumbs Up** if they remember the vocabulary terms. Selected students respond: heavy, light, heavier, lighter.

TEACHER DO: If necessary, provide terms students do not mention.

TEACHER SAY: I have two objects, a _____ (name of object) and a _____ (name of other object). What should I do if I want to know which one is heavier? Give me a Thumb Up if you have an idea.

STUDENTS DO: Give a **Thumbs Up** to volunteer. Selected students share their ideas.

TEACHER DO: Accept all reasonable answers. Students might say to weigh the objects on a scale or to simply pick them up and feel which is heavier. For this lesson, they will be using the latter method. If it is not brought up by students, suggest it as an option.

TEACHER SAY: Do you think I could compare their weights by picking them up? Give me a Thumbs Up if you think yes.

STUDENTS DO: Give a **Thumbs Up** if they think they could compare weights by picking objects up.

TEACHER SAY: Let's try. First, I will pick up the _____ (name of object).

TEACHER DO: Hold the object in one hand.

TEACHER SAY: Then I will pick up the _____ (name of other object).

TEACHER DO: Hold the second object in your other hand. **Model** comparing the weights using your hands.

TEACHER SAY: I can tell by my sense of touch that the _____ (name of heavier object) is heavier. We can also compare the weights of two objects using a balance. Pretend your hands are a balance. The heavier item is in the hand that you write with. Show me what that would look like.

STUDENTS DO: Hold one hand up and one hand down to show heavier and lighter weights.

TEACHER SAY: Today, you will work in groups to compare weights. Each group will receive two objects. Take turns holding and comparing the weights of the objects. Make sure everyone gets a turn. Then talk to each other about which object you think is heavier and which you think is lighter. Touch your nose if you understand the directions.

STUDENTS DO: Touch their noses to show understanding.

TEACHER DO: Call on a student who is touching their nose to repeat the directions to the class. Divide students into small groups. Give each group two objects. Direct students to leave the items in the middle of the group until you tell them to begin working.

TEACHER SAY: Every group has two objects. Begin working. You have two minutes to work, so make sure everyone gets a turn.

STUDENTS DO: Work with their friends to compare the weights of the two objects. Discuss their findings and share their reasoning.

TEACHER DO: Walk around and listen to students' discussions. Do not ask them to share with the whole class at this time.

TEACHER SAY: Freeze please. Pass your two objects to the next group and wait for directions.

STUDENTS DO: Pass their objects to the next group. Receive new objects from another group.

TEACHER DO: Repeat until all groups have compared the weights of at least three sets of objects. Then, collect the objects, but keep them in pairs. For each object, ask students to tell you which one was heavier or which one was lighter. Begin by holding up one pair of objects.

TEACHER SAY: If you compared these two objects, tell me which one is heavier.

STUDENTS DO: Call out the answer (if they compared the objects).

TEACHER DO: Repeat for each pair of objects.

2. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician.* **Today's number is 13.**

TEACHER DO: Write the number 13 on the board.

TEACHER SAY: I will use the Calling Sticks to have 13 students come to the front of the room.

TEACHER DO: Repeat the routine of using the magic math problem line on the floor to create two problems with today's number. Use the chant: Math maker, math maker, it is math problem time. Send _____ (student's name) and _____ (another student's name) over the line. Modify to include all of the students you are calling over the line. See **Lesson 111** for complete instructions.

3. TEACHER SAY: Now it is your turn. I will hand out 13 counters and a magic math problem line paper. Then I will hand out your next piece of paper for your book. When you get your paper, write the number 13 at the top in the center.

TEACHER DO: Hand out supplies.

TEACHER SAY: Record at least five different ways you can make 13. That means you can record more than five problems, but not fewer than five problems. Who has questions?

STUDENTS DO: Work on finding and recording ways to compose 13.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please make sure your name is on the back of your paper. For Share today, I would like you to talk to your Shoulder Partner and show him or her your work.

STUDENTS DO: Share their work with their **Shoulder Partners**.

TEACHER SAY: I would like two students to share one of their problems with the class today Please raise your hand to volunteer.

STUDENTS DO: Raise their hands to volunteer. Selected students write their problems on the board.

TEACHER DO: Check the volunteers' work with the class by using counters.

TEACHER SAY: Wonderful work today. Your book now has three pages. How many pages will your book have after tomorrow?

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare weights using the terms heavier and lighter.
- Apply strategies to compose and decompose 14.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 14 counters (one set per student)
- Pairs of objects for comparing weights (one pair per small group of students)
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Gather additional objects for students to use to practice comparing weights. Swap out some of the objects used in **Lesson 113** for these new objects. (See Chapter Preparation for details.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER SAY: Today, we are going to see how high we can count in a different way. I am going to draw an imaginary line down the center of the classroom. Half of you will be on one side and half of you will be on the other side. We are going to Volley Count. When we Volley Count, one side of the classroom says one number and then the other side says the next. This side will start with the number 1.

TEACHER DO: Point to one side of the classroom.

TEACHER SAY: Then they will pretend to toss a ball to the other side of the classroom. The other side of the classroom will then say 2.

TEACHER DO: Point to the other side of the classroom.

TEACHER SAY: Then they will pretend to toss the ball back to the other side. What do you think they will say? Can you say it aloud?

STUDENTS DO: Say: 3.

TEACHER SAY: Great. We will keep going back and forth and see how high we can count.

Note to the Teacher: Let the students count as high as they can. If they cannot count all the way to 100, mark the number they do reach on the hundreds chart and then review the numbers. For example, if they can only count to 39, stop counting and mark the number on the hundreds chart. Then practice counting the next 10 numbers (40, 41, 42, 43, 44, 45, 46, 47, 48, 49) as a class. This will give the students a goal to reach the next time they play. If counting to 100 is easy for them, change the game by skip counting by 5, 2, or 3 (in that order).

TEACHER SAY: Great job playing Volley Count.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: Before we continue to work on our books, we are going to play our game from last class where we compared objects by weight. First, I will give each small group two objects. Do not touch the objects until I tell you to begin working.

TEACHER DO: Hand out objects.

TEACHER SAY: Who can remind us how we play this game? Raise your hand if you can help us remember.

STUDENTS DO: Raise their hands to share.

TEACHER DO: Call on students to share. Make sure they know all of the steps, including: take turns comparing the objects using their senses, talk to group to make sure they agree, pass objects to the next team when told, be ready to answer questions.

TEACHER SAY: Great, let's begin. You have two minutes for each person in your group to compare the weights of the objects and make sure you all agree. Work together, take turns, and give everyone a turn.

STUDENTS DO: Compare the weights of two items using their senses. Describe the weights using the terms heavy, light, heavier, and lighter. Pass objects to the next group. Receive objects from another group and repeat the procedure.

TEACHER DO: Play three rounds of the comparing weight game. See **Lesson 113** for detailed instructions.

3. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician***. Today's number is 14.**

TEACHER DO: Write the number 14 on the board.

TEACHER SAY: I will use the Calling Sticks to have 14 students come to the front of the room.

TEACHER DO: Repeat the routine of using the magic math problem line on the floor to create problems with today's number. Use the chant: Math maker, math maker, it is math problem time. Send _____ (student's name) and _____ (another student's name) over the line. Modify to include all of the students you are calling over the line. See **Lesson 111** for complete instructions.

4. TEACHER SAY: Now it is your turn. I will give each of you 14 counters and a magic math problem line paper.

TEACHER DO: Hand out counters and magic math problem line paper.

TEACHER SAY: Next, I will hand out your fourth piece of paper for your book. When you get your paper, write the number 14 at the top of the paper right in the center.

STUDENTS DO: Write 14 at the top center of their papers.

TEACHER SAY: You will write your magic math problems on this sheet of paper. Today's number is 14, so you will use your counters and your magic math problem line to create and solve math problems, just as you did yesterday. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 14. That means you can record more than five problems, but not fewer than five problems. Who has questions?

STUDENTS DO: Raise hands to ask questions.

TEACHER DO: Answer students' questions. Make sure all students understand the assignment before they begin working. If you have made modifications to the assignment for students who need additional instruction or challenge, take those aside to explain the directions they will follow. (Taking them aside helps minimize distraction and allows other students to begin working.)

STUDENTS DO: Work on finding and recording ways to compose 14.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Note to the Teacher: As students create their pages, look for exemplary work and stop students to draw their attention to it. This should be a quick, mid-lesson share where students put down their work, look at the example, and listen to teacher comments about one or two things the student is doing well.

Share (5-10 minutes)

Directions

1. TEACHER SAY: We have been practicing comparing length and weight. Why is it important that we know how to compare lengths and weights? I will give you a moment to think about it, then I will call on some of you.

STUDENTS DO: Think quietly for about a minute.

TEACHER SAY: Give me a **Thumbs Up** if you would like to share your thinking about why we might need to be able to compare lengths and weights.

STUDENTS DO: Give a **Thumbs Up** to volunteer. Selected students share their thinking.

TEACHER DO: Take note of students' ideas. Help them use math vocabulary to explain their thinking.

TEACHER SAY: Thank you for sharing your thinking. It is wonderful to hear you talk about how we can use what we learn in our math lessons when we are out in the world.

Lesson 115 Overview

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare the weights of three items.
- Apply strategies to compose and decompose 15.

KEY VOCABULARY
- No new vocabulary. Reinforce existing vocabulary.

MATERIALS
- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 15 counters (one set per student)
- Magic math problem line paper
- Sheets of paper for students' books
- Math journal

LESSON PREPARATION FOR THE TEACHER

- Draw on the board a truck, feather, and loaf of bread.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Volley Count Activity. See **Lesson 114** for instructions, if needed.

STUDENTS DO: Participate in Volley Count Activity.

Note to the Teacher: Remember, once students can Volley Count to 100 counting by ones, skip count by 5, 2, and 3.

Learn (25-30 minutes)

Directions

1. TEACHER DO: Hand out math journals.

TEACHER SAY: Open your math journals to the page for Lesson 115.

STUDENTS DO: Open math journals to the page for **Lesson 115**.

TEACHER SAY: Before we continue to work on our books, we are going to do a quick assessment so you can show me what you know about weighing objects. I have drawn three pictures on the board. A picture of a truck, a picture of a feather, and a picture of a loaf of bread. I want you to think how you would order them from lightest to heaviest.

TEACHER SAY: First, draw these three pictures in your journal. Do not worry about creating a perfect drawing. Just do your best.

STUDENTS DO: Draw the truck, feather, and loaf of bread in their journals.

TEACHER SAY: Think about which of these items is the lightest. When you have decided, write the number 1 under that item. Keep your work private.

STUDENTS DO: Write a 1 under the item they think is the lightest.

TEACHER SAY: Next, think about which item is the heaviest. When you have decided, write the number 3 under that item. Keep your work private.

STUDENTS DO: Write a 3 under the item they think is the heaviest.

TEACHER SAY: Finally, write the number 2 under the last item.

STUDENTS DO: Write a 2 under the last item.

TEACHER SAY: Close your journals. I will look at your work later.

TEACHER DO: Review students' work to assess their understanding of comparing weights. Consider writing a symbol on the pages of students who get all three correct, such as stars or smiley faces.

2. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician*. Today's number is 15.

TEACHER DO: Write the number 15 on the board.

TEACHER SAY: I will use the Calling Sticks to have 15 students come to the front of the room.

TEACHER DO: Repeat the routine of using the magic math problem line on the floor to create problems with today's number. Use the chant: Math maker, math maker, it is math problem time. Send _____ (student's name) and _____ (another student's name) over the line. Modify to include all of the students you are calling over the line. See **Lesson 111** for complete instructions.

3. TEACHER SAY: Now it is your turn. I will give each of you 15 counters and a magic math problem line paper.

TEACHER DO: Hand out counters and magic math problem line paper.

TEACHER SAY: Next, I will hand out your second piece of paper for your book. When you get your paper, write the number 15 at the top of the paper right in the center.

STUDENTS DO: Write 15 at the top center of their papers.

TEACHER SAY: You will write your magic math problems on this sheet of paper. Today's number is 15, so you will use your counters and your magic math problem line to create and solve math problems, just as you did yesterday. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 15. That means you can record more than five problems, but not fewer than five problems. Who has questions?

STUDENTS DO: Raise hands to ask questions.

TEACHER DO: Answer students' questions. Make sure all students understand the assignment before they begin working. If you have made modifications to the assignment for students who need additional instruction or challenge, take those aside to explain the directions they will follow. (Taking them aside helps minimize distraction and allows other students to begin working.)

STUDENTS DO: Work on finding and recording ways to compose 15.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Note to the Teacher: If some students need a challenge, they can either write more problems or pick one of their problems and illustrate it.

Share (5-10 minutes)

Directions

1. TEACHER SAY: I am curious about what you would like to learn more about math. What are you curious about? What kind of math do you wish you could do? Talk to your Shoulder Partner.

STUDENTS DO: Share their thinking with their **Shoulder Partners**.

TEACHER SAY: Give me a Thumbs Up if you would like to share your thinking.

STUDENTS DO: Give a **Thumbs Up** to volunteer. Selected students discuss math skills and concepts they would like to learn about.

TEACHER DO: Take note of students' thoughts and ideas. If there is any extra time left before the end of the school year, consider giving students a little "taste" of the skills and concepts they are interested in.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare sizes using the terms bigger and smaller.
- Apply strategies to compose and decompose 16.

KEY VOCABULARY

- Bigger
- Smaller

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 16 counters (one set per student)
- Pairs of objects for comparing sizes (one pair per small group of students)
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Gather five different pairs of objects that students can use to compare size. (See Chapter Preparation.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Volley Count Activity. See **Lesson 114** for instructions, if needed.

STUDENTS DO: Participate in Volley Count Activity.

Note to the Teacher: Remember, once students can Volley Count to 100 counting by ones, move to skip counting by 5, 2, and 3.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Today, we are going to review something else we learned earlier in the year. When we review something, we look at it again. I would like us to review the words bigger and smaller. Please Turn and Talk to your Shoulder Partner and see if you can agree on what the words bigger and smaller mean.

STUDENTS DO: Talk to their **Shoulder Partners**.

TEACHER SAY: Raise your hand if you would like to share what you and your partner think.

STUDENTS DO: Raise their hands to share. Selected students share their thinking about the words bigger and smaller.

TEACHER DO: Accept all reasonable answers.

TEACHER SAY: I have several pairs of items. I will hold up two items at a time and I want you to think about which item is bigger. The first two objects are a _____ (name of item) and a _____ (name of other item). Think in your head, which one is bigger?

TEACHER DO: Hold up two items. One item should be significantly bigger than the other. Give students **Wait Time**.

STUDENTS DO: Observe items to determine which is bigger.

TEACHER SAY: I am going to use the Calling Sticks to have a volunteer come to the front of the room and point to the item that is bigger.

TEACHER DO: Pull a **Calling Stick** and invite the student volunteer to the front of the room.

STUDENTS DO: Volunteer comes to the front of the room and points to the bigger item.

TEACHER SAY: How do you know that item is bigger?

STUDENTS DO: Volunteer explains their thinking.

TEACHER DO: Correct any misconceptions student may have if they choose the incorrect item.

TEACHER SAY: Thank you, _____ (student's name) for volunteering. Please go back to your seat.

STUDENTS DO: Volunteer returns to their seat.

TEACHER SAY: I have four more pairs of objects. I will hold up one pair of objects in front of you so that you can see them.

TEACHER DO: Hold up two objects so students can compare their sizes.

TEACHER SAY: Using your sense of sight, compare the two objects and decide which object is bigger. You will now show your answers by moving your bodies. When I say go, you will jump in the air if you think this object is the bigger object.

TEACHER DO: Point to the first object.

TEACHER SAY: And you will clap your hands if you think that object is the bigger object.

TEACHER DO: Point to the second object.

TEACHER SAY: Ready and go.

STUDENTS DO: Jump in the air or clap their hands.

TEACHER DO: Call on a student to share their answer and explain their thinking.

TEACHER SAY: The _____ (name of the bigger object) is the bigger object. That means the _____ (name of the smaller object) is the smaller object.

TEACHER DO: Repeat the procedure with the rest of the objects, using the words bigger and smaller each time.

2. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician*. Today's number is 16.

TEACHER DO: Write the number 16 on the board.

TEACHER SAY: I will use the Calling Sticks to have 16 students come to the front of the room.

TEACHER DO: Repeat the routine of using the magic math problem line on the floor to create problems with today's number. Use the chant: Math maker, math maker, it is math problem time. Send _____ (student's name) and _____ (another student's name) over the line. Modify to include all of the students you are calling over the line. See **Lesson 111** for complete instructions.

3. TEACHER SAY: Now it is your turn. I will give each of you 16 counters and a magic math problem line paper.

TEACHER DO: Hand out counters and magic math problem line paper.

TEACHER SAY: Next, I will hand out your second piece of paper for your book. When you get your paper, write the number 16 at the top of the paper right in the center.

STUDENTS DO: Write 16 at the top center of their papers.

TEACHER SAY: You will write your magic math problems on this sheet of paper. Today's number is 16, so you will use your counters and your magic math problem line to create and solve math problems, just as you did yesterday. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 16. That means you can record more than five problems, but not fewer than five problems. Who has questions?

STUDENTS DO: Raise hands to ask questions.

TEACHER DO: Answer students' questions. Make sure all students understand the assignment before they begin working. If you have made modifications to the assignment for students who need additional instruction or challenge, take those aside to explain the directions they will follow. (Taking them aside helps minimize distraction and allows other students to begin working.)

STUDENTS DO: Work on finding and recording ways to compose 16.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please make sure your name is on the back of your paper. For Share today, I would like you to Pair Up, Share Up and show someone new your work.

STUDENTS DO: Pair Up, Share Up and share their work with each other.

TEACHER SAY: You are all amazing mathematicians. Your book now has six pages and is a wonderful collection of all of your hard work.

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS
Students will: • Participate in Calendar Math activities. • Count on from any number to 100. • Recognize and count Egyptian pounds. • Compare sizes using the terms bigger and smaller. • Apply strategies to compose and decompose 17.	• No new vocabulary. Reinforce previous vocabulary as needed.	• Calendar Math Area • Ten frame • Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day • Sets of 17 counters (one set per student) • Five posters for bigger than/ smaller than • Magic math problem line paper • Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Using chart paper, create five different posters for bigger than/smaller than. (See Chapter Preparation.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Volley Count Activity. See **Lesson 114** for instructions, if needed.

STUDENTS DO: Participate in Volley Count Activity.

Note to the Teacher: Remember, once students can Volley Count to 100 counting by ones, move to skip counting by 5, 2, and 3.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: Let's do a quick review of the vocabulary words bigger and smaller. Work with a partner to find two objects in the room to compare. Your object can be anything in the room, including things you can pick up and things you cannot pick up. When you have found your objects, you and your partner sit down together. If you can carry your objects, take them

with you. If you cannot carry your object, that is fine. You will just tell us what your object is. You have two minutes to find your two objects and sit down. Begin.

STUDENTS DO: Walk around the room and find two objects to compare. Sit down with their partners when they have selected two objects.

TEACHER SAY: Talk to your Shoulder Partner about your two objects. Which one is bigger? Which one is smaller? Talk to each other now. You have about 30 seconds.

STUDENTS DO: Compare their objects to determine which is bigger and which is smaller.

TEACHER DO: Walk around and listen to students' conversations.

TEACHER SAY: It is time to share your comparisons. You worked with your partner to select two objects. One of you select one of the objects. One of you select the other. Take about 20 seconds to decide which of you will take which object.

STUDENTS DO: Select one of the objects chosen by their pair.

TEACHER SAY: If you have the bigger object, you will sit. If you have the smaller object, you will stand. Work with your partner to compare your objects and decide who will sit and who will stand.

STUDENTS DO: Compare their objects. One sits, one stands.

TEACHER DO: Walk around the room and check students' work. Correct any students who have made errors. As you finish checking a pair of students, have them return their objects and go to their seats. This should be a quick review and practice of comparing by size.

STUDENTS DO: Answer the teacher's questions, return objects to where they found them, and go back to their seats.

3. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician*. Today's number is 17.

TEACHER DO: Write the number 17 on the board.

TEACHER SAY: I will use the Calling Sticks to have 17 students come to the front of the room.

TEACHER DO: Repeat the routine of using the magic math problem line on the floor to create problems with today's number. Use the chant: Math maker, math maker, it is math problem time. Send _____ (student's name) and _____ (another student's name) over the line. Modify to include all of the students you are calling over the line. See **Lesson 111** for complete instructions.

4. TEACHER SAY: Now it is your turn. I will give each of you 17 counters and a magic math problem line paper.

TEACHER DO: Hand out counters and magic math problem line paper.

TEACHER SAY: Next, I will hand out your second piece of paper for your book. When you get your paper, write the number 17 at the top of the paper right in the center.

STUDENTS DO: Write 17 at the top center of their papers.

TEACHER SAY: You will write your magic math problems on this sheet of paper. Today's number is 17, so you will use your counters and your magic math problem line to create and solve math problems, just as you did yesterday. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 17. That means you can record more than five problems, but not fewer than five problems. Who has questions?

STUDENTS DO: Raise hands to ask questions.

TEACHER DO: Answer students' questions. Make sure all students understand the assignment before they begin working. If you have made modifications to the assignment for students who need additional instruction or challenge, take those aside to explain the directions they will follow. (Taking them aside helps minimize distraction and allows other students to begin working.)

STUDENTS DO: Work on finding and recording ways to compose 17.

TEACHER DO: Walk around and observe students as they work. Offer help as needed. Make sure all students understand the assignment.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please make sure your name is on the back of your paper. For Share today, I would like you to Pair Up, Share Up and show someone new your work.

STUDENTS DO: Pair Up, Share Up, and share their work with a new partner.

TEACHER SAY: Excellent, your book now has seven pages.

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare and order three quantities from least to greatest.
- Apply strategies to compose and decompose 18.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 18 counters (one set per student)
- Cups with one to five counters (one cup per student)
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER

- Provide one cup for each student. Inside each cup should be one to five counters. (See Chapter Preparation for details.)

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Volley Count Activity. See **Lesson 114** for instructions, if needed.

STUDENTS DO: Participate in Volley Count Activity.

Note to the Teacher: Remember, once students can Volley Count to 100 counting by ones, move to skip counting by 5, 2, and 3.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: Please turn and tell your Shoulder Partner what we worked on in our last math lesson.

STUDENTS DO: Share their learning from the last math lesson.

2. TEACHER SAY: Today, we are going to play a game called Count and Sort. To play the game, you will each get a cup and counters. Your first job is to see how many counters you have in your cup. You do not all have the same number of counters.

TEACHER DO: Hand out cups and counters.

STUDENTS DO: Count the number of counters in their cups.

TEACHER SAY: You will play the game in groups, so I will say Round Up to get you into groups as we have practiced before. Take your cup of counters with you. Are you ready?

STUDENTS DO: Indicate they are ready.

TEACHER SAY: Round Up three.

STUDENTS DO: Move to form groups of three. Take their cups of counters.

TEACHER SAY: Now, you will play Count and Sort. Here is how you play: Sit with your group, tell your group the number of counters you have, then sort yourselves from least to greatest. I would like three volunteers to help me explain how to play the game. Raise your hand to volunteer.

STUDENTS DO: Raise hands to volunteer. Selected students go to the front of the room with their cups of counters.

TEACHER SAY: First, we need to find out how many counters everyone in the group has. Tell everyone how many counters you have.

STUDENTS DO: Tell everyone their counter numbers.

Note to the Teacher: Some of the students might have the same number of counters. That is fine. Discuss with the students how they could organize themselves to show it. Possible ideas include standing side-by-side or standing one behind the other.

TEACHER SAY: Now that we know how many counters you each have, you can organize yourselves from least to greatest. Which of our volunteers has the smallest number of counters?

STUDENTS DO: Call out their answers. Volunteer with the fewest counters stands first in line.

TEACHER SAY: Which of our volunteers has the greatest umber of counters?

STUDENTS DO: Call out their answers. Volunteer with the greatest number of counters stands a little apart from the first person in line.

TEACHER SAY: Our last volunteer has a number of counters that is in between the other two numbers. Where should they stand?

STUDENTS DO: Call out their answers. Last volunteer stands between the first two volunteers.

TEACHER DO: Write the three numbers on the board so all students can see them ordered from least to greatest. Praise students for a job well done. Have volunteers return to their groups.

STUDENTS DO: Volunteers return to their groups and sit.

TEACHER SAY: First, we will play this game with three in a group. But as you get better, we will play with four or five people in a group. Will it be easier or more difficult to put yourselves in order from least to greatest?

STUDENTS DO: Call out their answers.

TEACHER SAY: If you said it may be more difficult, I agree with you. But, you are such strong math students, it would not surprise me if you get very good at this game right away. And, you can help each other. Go ahead and play Count and Sort with the group you are in right now. I will come around and check your work.

STUDENTS DO: Play Count and Sort.

TEACHER DO: Walk around and observe students as they work. Check as many groups as possible before having students move to new groups.

TEACHER SAY: Round Up three.

STUDENTS DO: Move to new groups and play Count and Sort.

TEACHER DO: Walk around and observe students as they work. Check as many groups as possible before having students move to new groups. If time allows, play one more round. Otherwise, have students return to their seats so they have enough time to work on the next page of their books.

STUDENTS DO: Round Up three and play Count and Sort if asked. Return to seats.

3. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician*. Today's number is 18.

TEACHER DO: Write the number 18 on the board.

TEACHER SAY: I will give you 18 counters, a magic math problem line paper, and a sheet of paper for your book. When you get your paper, write the number 18 at the top of the paper, right in the center.

TEACHER DO: Hand out supplies.

STUDENTS DO: Write 18 at the top center of their papers.

TEACHER SAY: Use your counters and your magic math problem line to create and solve math problems, just as you did yesterday. Once you have created and solved a magic math problem, write the equation on the sheet of paper I gave you. Record at least five different ways you can make 18.

STUDENTS DO: Work on creating equations for 18.

TEACHER DO: Walk around and monitor the class. Make sure all students understand the assignment. Take note of two problems that you will show on the board in during Share.

Share (5-10 minutes)

Directions

1. TEACHER SAY: **When you are finished, please make sure your name is on the back of your paper. I will collect them and pick two student problems to write on the board.**

TEACHER DO: Choose two problems to write on the board and check the work with the class.

STUDENTS DO: Help the teacher check the two student problems on the board.

TEACHER SAY: **Great learning today. Your book is getting thicker every day, and you learned a new game.**

LEARNING OUTCOMES	KEY VOCABULARY	MATERIALS

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Compare and order three quantities from least to greatest.
- Apply strategies to compose and decompose 19.

KEY VOCABULARY
- No new vocabulary. Reinforce previous vocabulary.

MATERIALS
- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 19 counters (one set per student)
- Cups with one to five counters (one cup per student)
- Magic math problem line paper
- Sheets of paper for students' books

LESSON PREPARATION FOR THE TEACHER
- No new preparation needed.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Volley Count Activity. See **Lesson 114** for instructions, if needed.

STUDENTS DO: Participate in Volley Count Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: We are going to play Count and Sort again today. We will use Round Up to get into our groups. Raise your hand if you can remind us how we play.

STUDENTS DO: Raise their hands to volunteer. Selected students explain the steps of the game.

TEACHER DO: Remind students of any missing steps. See **Lesson 118** for detailed instructions.

TEACHER SAY: I will hand out the cups and counters. When you get your cup, count your counters.

TEACHER DO: Hand out the cups. Begin the game by having students **Round Up** three.

STUDENTS DO: Get into groups of three and play Count and Sort.

TEACHER DO: Walk around and observe students as they work. Check the work of as many groups as possible before moving on to the next round.

TEACHER SAY: Round Up four.

STUDENTS DO: Get into groups of four and play Count and Sort.

TEACHER DO: Walk around and observe students as they work. Check the work of as many groups as possible before moving on to the next round.

TEACHER SAY: Round Up five.

STUDENTS DO: Get into groups of five and play Count and Sort.

TEACHER DO: Walk around and observe students as they work. Check the work of as many groups as possible before ending game play.

2. TEACHER SAY: Great job. Now it is time to work on your book, *I Am a Master Mathematician*. Today's number is 19.

TEACHER DO: Write the number 19 on the board.

Note to the Teacher: By now, students should understand the task. If necessary, review directions. Otherwise, distribute materials and allow students to begin working.

TEACHER DO: Walk around and monitor the class. Take note of two problems to write on the board for Share.

Share (5-10 minutes)

Directions

1. TEACHER SAY: When you are finished, please make sure your name is on the back of your paper. I will collect them and pick two student problems to write on the board.

TEACHER DO: Choose two problems to write on the board and check the work with the class.

STUDENTS DO: Help the teacher check the two student problems on the board.

TEACHER SAY: Great work today. In the next class, you will create your final page. Your book is almost complete. Give yourselves a pat on the back.

STUDENTS DO: Pat backs.

Lesson 120 Overview

LEARNING OUTCOMES

Students will:
- Participate in Calendar Math activities.
- Count on from any number to 100.
- Recognize and count Egyptian pounds.
- Sort objects by color.
- Apply strategies to compose and decompose 20.

KEY VOCABULARY

- No new vocabulary. Reinforce previous vocabulary as needed.

MATERIALS

- Calendar Math Area
- Ten frame
- Combinations of 1 LE, 5 LE, 10 LE, and 20 LE notes for Buy the Day
- Sets of 20 counters (one set per student)
- Objects for students to sort by color (one object per student)
- Magic math problem line paper
- Sheets of paper for students' books
- Stapler
- Title pages for books (one per student)

LESSON PREPARATION FOR THE TEACHER

- Gather red, blue, green, yellow, or orange objects, such as crayons, markers, or other colorful objects. (See Chapter Preparation for details.)
- Create a title page for students' books. The title should read: *I Am a Master Mathematician* and have a line at the bottom with a place for students to write their names.

Calendar and Movement (15-20 minutes)

Directions

1. TEACHER DO: Complete Calendar Math routine. See **Lesson 61** for instructions, if needed.

STUDENTS DO: Participate in Calendar Math routine.

2. TEACHER DO: Complete Buy the Day. See **Lesson 83** for instructions, if needed.

STUDENTS DO: Participate in Buy the Day.

3. TEACHER DO: Complete Ten Frame Activity. See **Lesson 64** for instructions, if needed.

STUDENTS DO: Participate in the Ten Frame Activity.

4. TEACHER DO: Complete Volley Count Activity. See **Lesson 114** for instructions, if needed.

STUDENTS DO: Participate in Volley Count Activity.

Learn (25-30 minutes)

Directions

1. TEACHER SAY: We have been reviewing and practicing comparing and sorting. We are going to compare and sort objects a different way today—by color. I am going to give each one of you an object. The objects may not all be the same, but they are all either red, blue, green, yellow, or orange. When I say go, your challenge will be to find other students with the same color object and stand together in a circle. You may be thinking it is so easy to sort by color, but this time you have to do it without talking. Everyone, put your voices in your pocket for this activity.

TEACHER DO: Pretend to take your voice and put it inside a pocket.

STUDENTS DO: Pretend to put voices in pockets.

TEACHER DO: Hand out objects to students.

TEACHER SAY: Let's see how quickly you can sort yourselves by color and stand together in a circle without talking. Ready? Go.

STUDENTS DO: Walk around looking for other people with the same color objects. Form color groups and stand together in circles.

TEACHER DO: Monitor the class as they put themselves into groups. When everyone has sorted themselves and each group is in a circle, move on.

TEACHER SAY: Excellent work. You did such an amazing job communicating with each other without even talking. As you return to your seats, place your objects here.

TEACHER DO: Indicate where you would like students to place their objects, such as a box or table.

STUDENTS DO: Return objects to the teacher, then sit.

2. TEACHER SAY: Great job, now it is time to finish your book, *I Am a Master Mathematician*. Today, we add our final number and it is 20.

TEACHER DO: Write the number 20 on the board.

Note to the Teacher: By now, students should understand the task. If necessary, review directions. Otherwise, distribute materials and allow students to begin working.

TEACHER DO: Walk around and monitor the class. Offer help as needed.

Share (5-10 minutes)

Directions

Note to the Teacher: Before today's Share, gather all of the previous pages that the students have created, sorted by student. Use paper clips, sticky notes, or other methods to separate and organize the pages.

1. TEACHER SAY: Today is a big day. You have worked so hard on your learning and your books. I have all of the rest of your pages here and will come around and staple them into a book for you. I have also made a title page for your book. It has the title of your book and a place at the bottom for you to write your name. As I come around and staple your books together, I want you to take the time to look through all of your hard work. You can share some of your favorites with your Shoulder Partner. Most importantly, you will be taking these books home with you today and can share them with your families. You should all feel so proud of yourselves. I am proud of you.

TEACHER DO: Move around the room assembling books.

STUDENTS DO: Review their work and share it with their **Shoulder Partners**.

KINDERGARTEN II

Mathematics

Appendix

Blackline Masters

0 to 10 Game Card

0	2	5	1	3
7	6	7	3	4
9	8	1	3	6
8	10	5	9	2
10	0	8	5	4

Math is Fun Game Card

0	2	5	1	3
7	6	7	3	4
9	8	1	3	6
8	10	5	9	2
10	0	8	5	4

Number Line 0-10
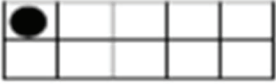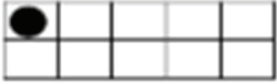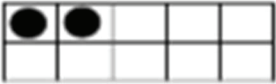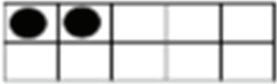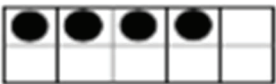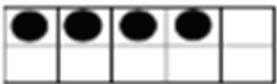
0	1	2	3	4	5	6	7	8	9	10
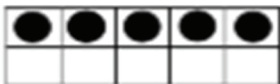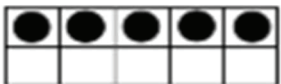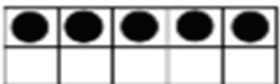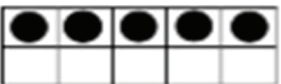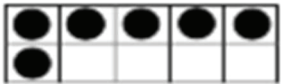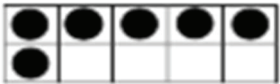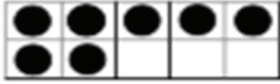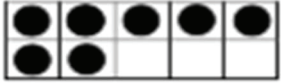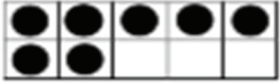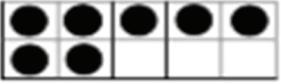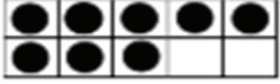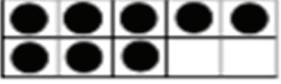
Spill the Beans Game Card
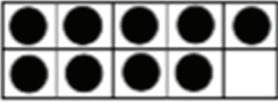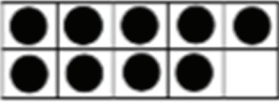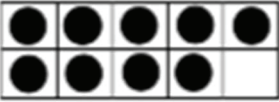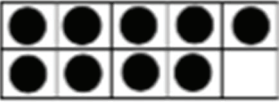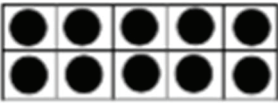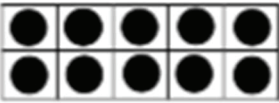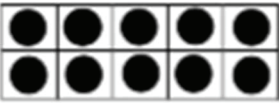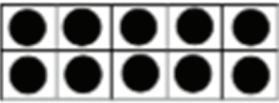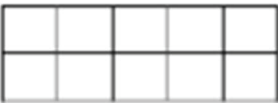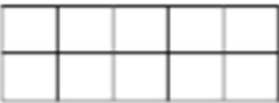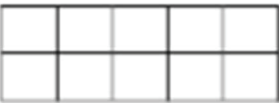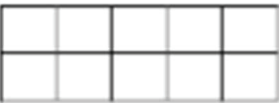
5	3	2	4
6	4	0	1
2	3	1	8
0	2	3	4
9	1	4	7

5	3	2	4
6	4	0	1
2	3	1	8
0	2	3	4
9	1	4	7

Ten Frame Cards

1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4

9	9	9	9
10	10	10	10
0	0	0	0

| **Wild Card** | **Wild Card** | **Wild Card** | **Wild Card** |

Ten Frame – Large

Ten Frames

Three-Dimensional Shape Nets

Cube

Cone

Cylinder