

Study guide for chapter 7

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THE DIVERSITY OF LIFE:

- Define the following: taxonomy, pathogen, biofilm, metamorphosis
- What does the Linnaean system include?
- What is the scientific approach for naming any species?
- What is the hierarchy of classification? In order

PROKARYOTES:

- What are the positive and negative effects of microorganisms to human body and to the environment?
- What are the three common shapes of bacteria?
- How bacteria can cause disease?
- Archaea are abundant in many habitats. How?

PROTISTS:

- What is the first eukaryotes on earth and the ancestor to plant, fungi and animal kingdom?
- The term “protist” is not a taxonomic category. Why?
- What are the protist modes of nutrition?
- What are the protist habitats?
- What are the main characteristics of categories of protist?
 - ⇒ Protozoan
 - ⇒ Slime mold
 - ⇒ Algae
 - ⇒ Seaweed

PLANT KINGDOM:

- Colonizing land:
- Why does living on land require a special set of adaptation?
- What is the ancestor of plants?
- What are Charyophytes?
- What are the four major periods in plant evolution?
- What are the major groups of plants?





FUNGI KINGDOM:

- What are the ecological and industrial roles of fungi?
- What are fungi? Body structure?

ANIMAL KINGDOM:

- What is an animal?
- Animal classification depends on “body plan”. Explain (structural complexity, body symmetry and body cavity)
- What are the differences between vertebrate and invertebrates?
- What are the major invertebrate phyla? Main characteristics for each group
- What are the four chordate characteristics?
- What are the main characteristics of Fishes, amphibians, Reptiles, nonbird reptiles, birds and mammals?
- Which groups of vertebrates are tetrapods?
- What is the origin of tetrapods?
- What are the main adaptation’s features that reptiles display to live on land?
- What are the main adaptation’s features that birds have to enhance flight?
- What is the main difference between birds and nonbird reptiles? (ectotherms and endotherms)
 - What are the major groups of mammals?

Figure 16.7: The major groups of plants

PLANT DIVERSITY			
Bryophytes (nonvascular plants)	Ferns (seedless vascular plants)	Gymnosperms (naked-seed plants)	Angiosperms (flowering plants)
			
Mosses, which are bryophytes, may sprawl as low mats over earth surface.	Ferns are by far the most diverse seedless vascular plants.	Of seed plants, they can complete their life cycles on dry land and withstand long, harsh winters.	Angiosperms dominate the modern landscape. Their success is largely due to refinements in vascular tissue and the evolution of the flower.