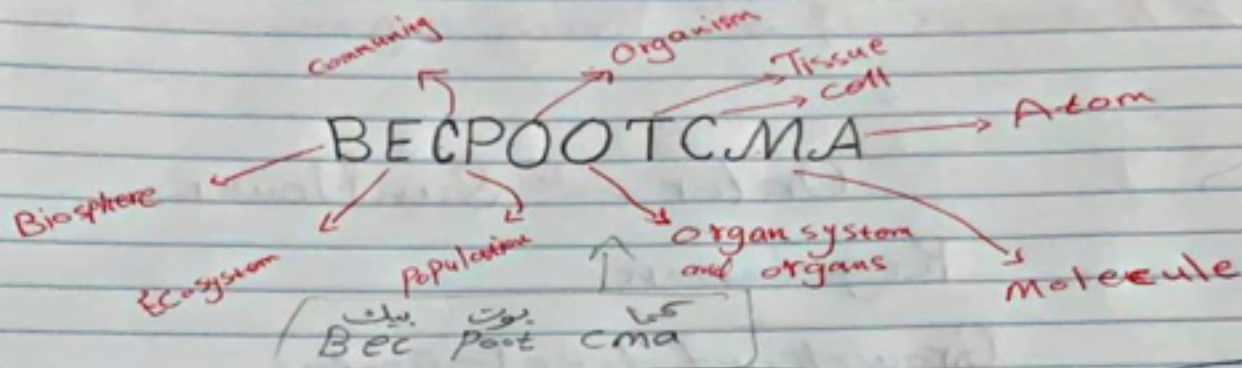


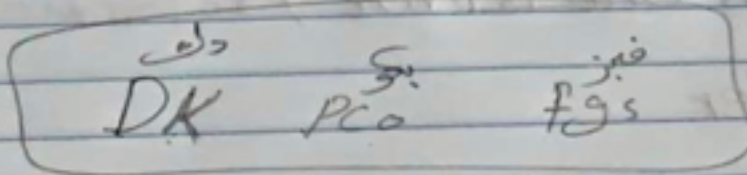
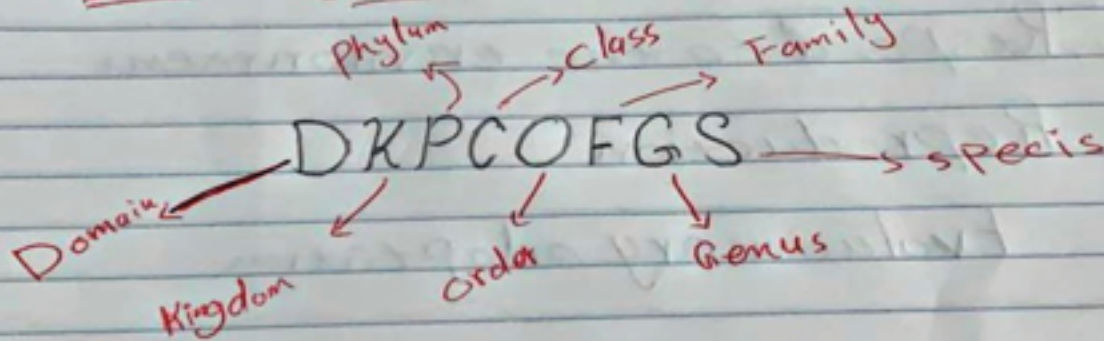
ملخص بعض الاشياء احياء الكويز ١

- دعواتكم JR

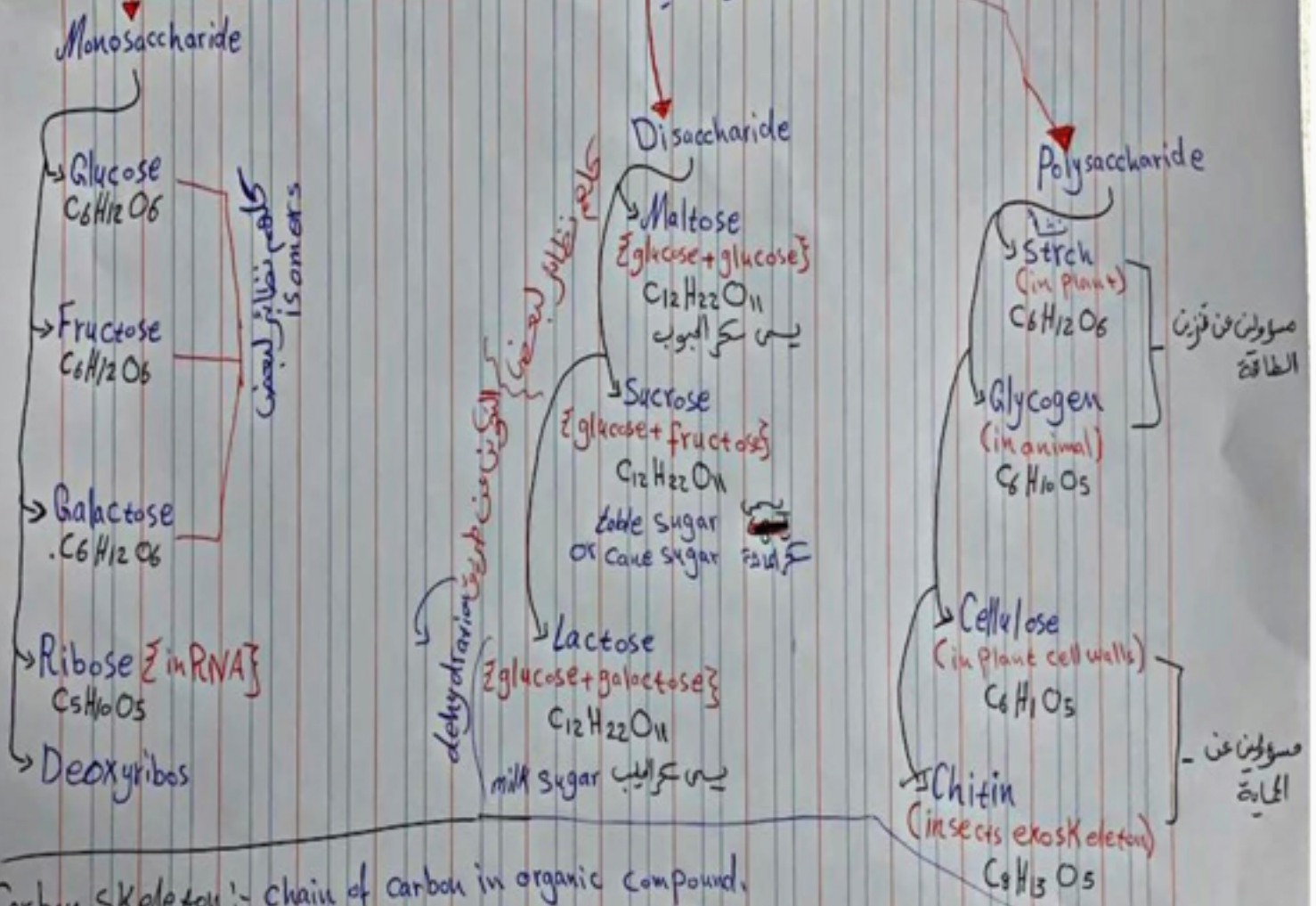
Ami كبريتية كذا مستويات التماثل العرقي من الأكبر إلى الأصغر



مستويات التصنيف من الأكبر إلى الأصغر



تحتوي طاقة ← (Carbohydrates) → {Hydroxy + Carbonyl} OH + Co
 الكربوهيدرات تتكون من السكر الأحادي



Carbon skeleton:- chain of carbon in organic compound.

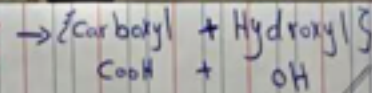
Isomer:- Compound have same molecular formula but different arrangements.

عبدالله عويضة

تخزن الطاقة

glycerol and fatty acid
الغليسرول وحمض دهون

Lipids



insoluble in water = hydrophobic

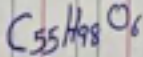
لا تذوب في الماء ولا تذوب في الماء

True fats

Energy Storage
المسؤولية تخزين الطاقة

Triglycerides

3 fatty acids and one glycerol
ثلاثة أحماض دهنية وجليسرول واحد



Phospholipids

cell membranes
غشاء الخلية

2 fatty acids and glycerol

Hydrophilic heads
رؤوس محبة للماء

Hydrophobic tails
ذيول كارهة للماء

Steroids

signaling
مسؤول عن نقل الإشارات

4 fused rings
4 حلقات متصلة

cholesterol

Estradiol (female)

Testosterone (Man)

Sex hormones

Saturated fatty acids

- * Without double bond (=)
- * Solid at room temperature.
- * High melting point.
- * Occur in most animal fats.

Unsaturated fatty acids

- * Contain one to more double bonds.
- * Liquid at room temperature.
- * Low melting point.
- * Occur in most plant cells.

عبدالله عويضة

$\left. \begin{array}{l} \text{سكر بروتين} + \text{أحماض أمينية} + \text{R-group} + \text{هيدروجين} \\ \text{H} + \text{R} + \text{NH}_2 + \text{COOH} \end{array} \right\} \leftarrow \text{Proteins} \begin{array}{l} \text{مركبات} \\ \text{مركبات} \end{array}$

← amino acids

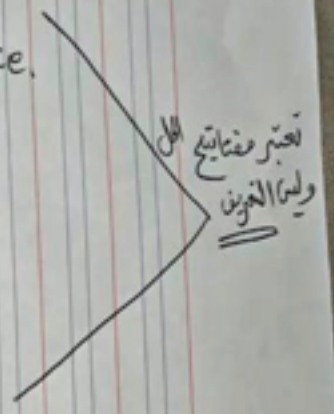
- * **Amino acids**:- joined together by peptide bonds.
- * **20 different amino acids.**
- * **Enzymes**:- speed up all reactions in cells.

Proteins either:-

- 1) **Structural Proteins**
Ex:- Tendons, Ligaments, Human hair.
- 2) **Defensive Proteins**
Ex:- Antibodies, Immune system.
- 3) **Signal Proteins**
Ex:- Hormones.
- 4) **Transport Proteins**
Ex:- Hemoglobin, red blood cells.
- 5) **Storage Proteins**
Ex:- Plant seed, egg white, milk.

Proteins levels of Structure:-

- 1) **Primary Structure**:- amino acid, unique sequence.
- 2) **Secondary Structure**:- fold back on it self.
- 3) **Tertiary Structure**:- three dimensions.
- 4) **Quaternary Structure**:- 2 or more Polypeptide.
Ex:- Hemoglobin and collagen.



عبدالله عويضة

بعض المركبات

- Maltos { malt sugar } → glucose + glucose.
- Lactose { milk sugar } → glucose + galactose.
- Sucrose { table sugar } → glucose + ~~glucose~~ fructose.
- Starch + glycogen → glucose
- Lipids → carbon + hydrogen.
- Fats → glycerol + fatty acids.
- Triglycerides → 1 glycerol + 3 fatty acids.
- Fatty acids → hydrocarbon chain + carboxylic acid
- Phospholipids → 2 fatty acids + glycerol.
- Steroids → 4 fused rings.
- Proteins → amino acids.
- Amino acids → carboxyl group + amino group + R group.
- Nucleic acid → nucleotides.
- Hydrocarbons → H + C
- Organic compound → Carbon-based.