

Carbon atoms can form four \_\_\_\_\_ bonds.

Carbon compounds which life is based on are; \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

Metabolism is \_\_\_\_\_

Anabolism is \_\_\_\_\_

Catabolism is \_\_\_\_\_

The most common **Elements** found in living things are:

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

Other elements & their functions are;

Sulfur - \_\_\_\_\_

Calcium - \_\_\_\_\_

Iron - \_\_\_\_\_

Phosphorous \_\_\_\_\_

Condensation reactions are \_\_\_\_\_

\_\_\_\_\_

Hydrolysis reactions are \_\_\_\_\_

\_\_\_\_\_

**Properties of Water:**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**The importance of water for living things**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

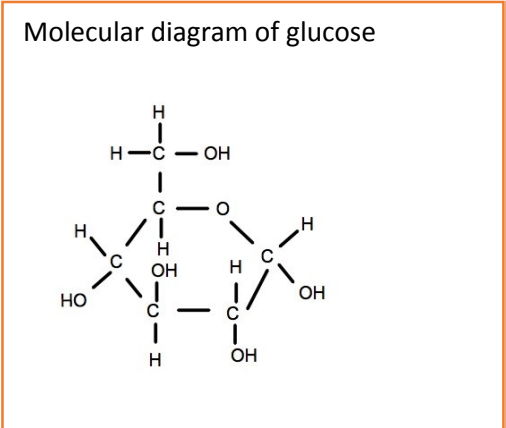


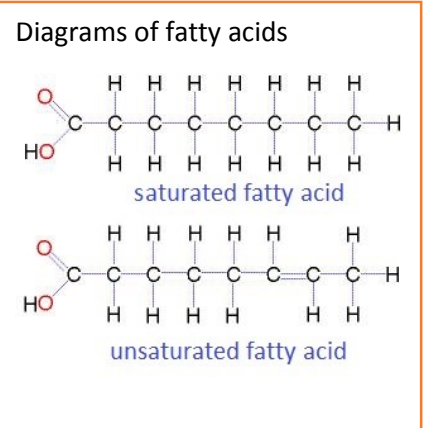
Diagram of ribose, \_\_\_\_\_

Fatty acids can be saturated, which means \_\_\_\_\_

or monounsaturated that means \_\_\_\_\_

or polyunsaturated.

A cis isomer of a fatty acid is. \_\_\_\_\_



The effect of Temperature on enzyme reaction rates is \_\_\_\_\_

\_\_\_\_\_

pH affects enzymes by \_\_\_\_\_

\_\_\_\_\_

and substrate concentration changes the rate of activity of enzymes because \_\_\_\_\_.

. How does the shape of an enzyme help its function? \_\_\_\_\_

\_\_\_\_\_

Examples of proteins: - a few details of each.

Insulin \_\_\_\_\_

RuBISCO \_\_\_\_\_

Spider silk \_\_\_\_\_

Rhodopsin \_\_\_\_\_

Enzymes \_\_\_\_\_

A proteome is \_\_\_\_\_

Use this diagram of a generalized amino acid to draw molecular diagrams of peptide bond formation.

How many different amino acids are there? \_\_\_\_\_

**Molecular model of Catalase enzyme & substrate**  
The Substrate = Hydrogen peroxide

The Active Site

Substrate - hydrogen peroxide

Active site

The enzyme = catalase

Enzyme - catalase

Advantages or immobilization of lactase in alginate beads are \_\_\_\_\_

\_\_\_\_\_

The similarities in structure between DNA and RNA are \_\_\_\_\_

\_\_\_\_\_

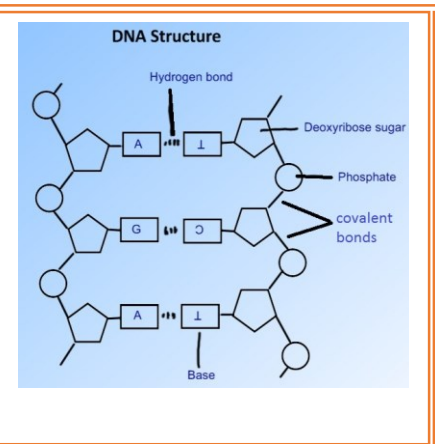
Complementary base pairing is \_\_\_\_\_

\_\_\_\_\_

Semi-conservative replication is \_\_\_\_\_

\_\_\_\_\_

A codon is \_\_\_\_\_ Anticodons are \_\_\_\_\_



DNA replication is controlled by these enzymes whose functions are:

- Helicase \_\_\_\_\_
- DNA polymerase \_\_\_\_\_

Transcription of DNA is \_\_\_\_\_

\_\_\_\_\_

Translation is \_\_\_\_\_

\_\_\_\_\_

