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Biology and Geology Department

CONSOLIDATION ACTIVITIES

"NATURAL SCIENCE" (2nd E.S.O.)

UNIT 1: "The Basis of Life"

1. Complete the following chart:

Organic biomolecule	Composition	Functions	Examples
GLUCIDS			
		- Insulation - Storage of energy - Structural	
	Amino acids		
			DNA RNA

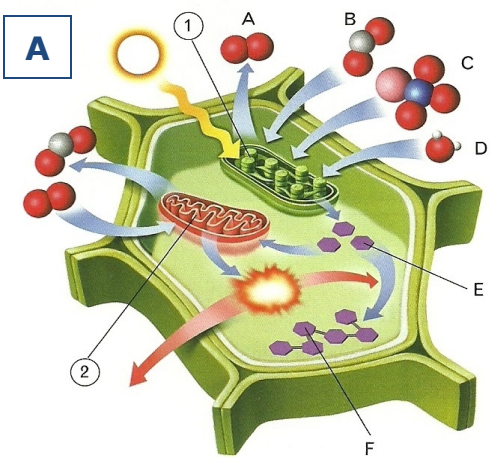
2. Look at the diagrams:

a. What kind of nutrition is represented in diagram **A**?

b. Relate every letter of the diagram **A** with its correspondent substance:

- Mineral salts……..
- Oxigen (O_2)…….....
- Complex organic matter (starch)……
- Carbon dioxide (CO_2)….....
- Simple organic matter (glucose)……
- Water (H_2O)……..

A



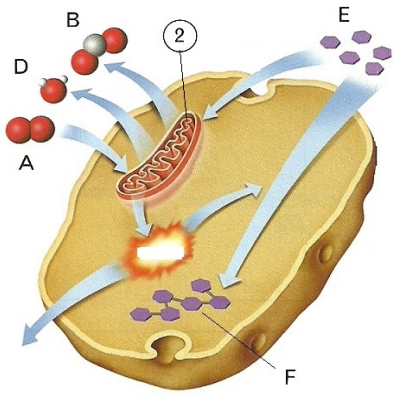
c. In diagram **A,** Indicate which represent number **1**.

- Which process takes place in it?
- Write its overall chemical reaction.
- Is it a catabolic or an anabolic reaction? Why?

d. In diagram **A**, indicate which represent number **2**.

- Which process takes place in it?
- Write its overall chemical reaction.
- Is it a catabolic or an anabolic reaction? Why?

B



e. In diagram **B**, is represented other kind of cellular nutrition.

- Which is it?
- label the diagram.
- What chemical reaction is common to autotrophic nutrition?
- How do obtain these cells the organic matter they need?

3. Write a "T" if the phrase is *true* and "F" if the phrase is *false*. Correct the last ones:

a. Prokaryotic cells have separated the genetic material from the rest of the cytoplasm…… ☐

b. The first biotic level of organization of matter is the molecule…… ☐

c. Water is the less abundant substances in living beings…… ☐

d. Wall cell, chloroplasts and a big vacuole are exclusive organelles of animal cells…… ☐

e. Multicellular organisms grow and repair their tissues through mitosis…… ☐

4. Complete the sentences with the most appropriate word:

a. ……are the typical chemical elements of living matter.

b. During ……..the parent cell divides into two identical daughter cells.

c. The construction phase of the metabolism is the ……

d. A response is the reaction to a ……...

e. Cell wall and …… are the exclusive organelles of eukaryotic plant cells.

5. Fill the conceptual map about the topic.