

ACTIVITY 20. Look at the following chemical elements and circle the most abundant ones in living things:

C (carbon) Ca (calcium) H (hydrogen) Na (sodium)
O (oxygen) Fe (iron) N (nitrogen)

ACTIVITY 21. Match each biomolecule with its function. Ask your teacher for help:

| | |
|----------------|---|
| WATER- | -Are reserve and insulating substances. |
| MINERAL SALT- | -Regulate chemical reactions and build skeletal structures. |
| GLUCIDS- | -Contain the inheritance information. |
| LIPIDS- | -Give energy to the organism. |
| PROTEINS- | -Transport other substances through the body. |
| NUCLEIC ACIDS- | -Build structures, transport substances, etc. |

ACTIVITY 22. Define cell.

ACTIVITY 23. Complete.

All cells have _____.

ACTIVITY 24. Prokaryotic, eukaryotic or both types?

- They belong to Protocist, Fungi, Plant and Animal Kingdom:
- They form unicellular and multicellular organisms:
- They belong to Monera kingdom:
- They don't have a nucleus:
- They are much smaller than eukaryotic cells:
- Their genetic material is not separated from the cytoplasm:
- Cell membrane is made up of lipids and proteins:
- They only form unicellular organisms:

ACTIVITY 25. Which life function is it?

Through this function, organisms can find food, flee from their predators and respond to changes in heat, light, sound, and chemical or mechanical contact.

ACTIVITY 26. Put a cross in the right column.

| | Prokaryotic cell | Eukaryotic cell | Animal cell | Plant cell |
|---------------|------------------|-----------------|-------------|------------|
| CELL MEMBRANE | | | | |
| CHLOROPLAST | | | | |
| NUCLEUS | | | | |
| DNA | | | | |
| MITOCHONDRIA | | | | |
| RIBOSOMES | | | | |

ACTIVITY 27. Match:

Interaction

a. It involves all the processes to obtain ENERGY and MATTER that living things need to stay alive.

Reproduction

b. It allows living things to produce new individuals.

Nutrition

c. It makes it possible for living things to react to and respond to changes in their environment.

ACTIVITY 28. Match:

They haven't got nucleus.

They have ribosomes, little organelles that make proteins.

EUKARYOTIC CELLS

Their genetic material is not separated from the cytoplasm.

PROKARYIOTIC CELLS

They have cellular wall, a rigid structure located outside.

PLANT CELLS

They have mitochondria, organelles which produce energy.

ANIMAL CELLS

They have a big vacuole that occupies the most part of the cytoplasm.

ACTIVITY 29. Answer these questions and justify your answer.

- Is there any multicellular organism made up of prokaryotic cells?

- What organelles are exclusive to plant cells?

ACTIVITY 30. Complete about nutrition.

_____ combine inorganic matter (water, _____ and CO₂) with energy from the Sun (_____) or from chemical reactions (chemosynthesis) to produce their own organic compounds. Plants, _____ and some bacteria are autotrophs.

Heterotrophs take _____ matter made by other living things. Animals, _____, protozoa and some bacteria are heterotrophs. According to the type of food they eat, the _____ organisms are classified into:

- Herbivores: they eat _____ (e.g. cows)
- _____: they eat meat (e.g. lions)
- _____: they eat meat and plants (e.g. humans)
- Saprophytes: they eat _____ (e.g. fungi)

ACTIVITY 31. Complete the table:

| | Kingdom | Nutrition | Tissues | Type of cell |
|-----------|---------|-----------|---------|--------------|
| Algae | | | | |
| Butterfly | | | | |
| Cypress | | | | |
| Fungi | | | | |
| Starfish | | | | |
| Moss | | | | |

- Which organisms are autotrophs?
- Which organisms have prokaryotic cells?
- Which organisms are multicellular?
- Which organisms do belong to animal kingdom?

ACTIVITY 32. Look at the picture and fill in the gaps.

