

Instructions:

1. Answer the activities.
2. Your work must be **handwritten**. Use both sides of the page and use white or graph paper. Your notebook is suitable.
3. When you come back from your holidays, you must present your work in a fastener. Activities presentation will be evaluated.
4. To pass biology, you must present the dossier and pass the exam. The exam would have activities similar to the ones given here.

Unit 1

- 1 Make an outline (esquema) of the composition and structure of the atmosphere.
- 2 Define what atmospheric pressure is and how it varies.
- 3 What does meteorology study? Is the weather the same as the climate?
- 4 Explain what saltwater and freshwater are. What proportion of each is there in the hydrosphere? In what forms can we find freshwater? Why is it called freshwater if it doesn't taste sweet?
- 5 True or false. Correct the sentences if false.
 - a) Nitrogen is the most abundant gas in the atmosphere.
 - b) The constituent gases of the atmosphere are hydrogen, oxygen, and nitrogen.
 - c) The emission of CO₂ into the atmosphere is one of the causes of the greenhouse effect.
 - d) Rain clouds form in the stratosphere.
 - e) The entirety of all the water on Earth is called the hydrosphere.
 - f) The majority of the water on our planet is found at the poles.
- 6 Have you heard about the ozone layer hole? What is it? Where is it located?
- 7 What does it mean that the atmosphere is a protective filter? What does it protect us from?

Unit 2

- 8 Make a diagram of the structure of the geosphere and label its parts. You can use a compass or any circular object, such as a glass, etc.

9 Complete the table. Fill the gaps with the correct information:

	Thickness	Composition	Material state
Oceanic crust			
Continental crust			
Mantle			
Outer core			
Inner core			

10 Indicate which of the following sentences are true (T) or false (F) and explain your answer:

- a) Minerals are composed of rocks.
- b) Petroleum is a liquid rock.
- c) The most abundant chemical elements in the Earth's crust are oxygen and silicon.
- d) The continental crust can reach depths of up to 700 km.

11 How are rocks classified based on their origin? Take a look to the rocks cycle.

12 What types of movement can two lithospheric plates exhibit relative to each other?

TEMA 3

13 What is a living being?

14 Create a table in your notebook showing the common organelles and those characteristic of the different types of cells.

15 Classify living beings based on their type of nutrition.

16 Indicate which of the following characteristics are common to all living beings.

- a) They have wings.
- b) They eat.
- c) They root.

- d) They nurse their young.
- e) They reproduce.
- f) They have skin.
- g) They breathe.
- h) They move on land.
- i) They lay eggs.
- j) They have sense organs.
- k) They interact with their environment.
- l) They nourish themselves.

17

What is an organic substance? Indicate which of the following substances are organic:

- a) Glucose
- b) Cholesterol
- c) Deoxyribonucleic acid (DNA)
- d) Silica
- e) Diamond
- f) Sodium chloride
- g) Sulfuric acid
- h) Starch
- i) Protein
- j) Vitamin

18

Choose one cell (prokaryotic, plant or animal) draw it and label its parts.

TEMA 4 i 5

19

What distinguishes vertebrate animals from invertebrate animals? Write three examples of vertebrates and 3 of invertebrates.

20

Classify the following animals as vertebrates or invertebrates:

- Snails
- Amphibians
- Jellyfish
- Birds
- Insects
- Spiders
- Snakes
- Starfish
- Cetaceans (whales, dolphins)
- Worms

21 Circle the right characteristics of Invertebrates from the list:

- A) Most of them are fixed to the ground / Most of them move around freely.
- B) They are autotrophs / They are heterotrophs.
- C) They have an endoskeleton / Some have an exoskeleton, and some don't.
- D) Most of them have radial symmetry / Most of them have bilateral symmetry.
- E) They are unicellular animals / They are multicellular animals.

22 Complete with the correct name:

- a) Name an invertebrate with a soft porous body:
- b) Name an invertebrate with an elongated body with rings:
- c) Name an invertebrate with a soft body covered with a shell:
- d) Name an invertebrate with an external skeleton:
- e) What characteristics make the giant squid an invertebrate?

23 About Arthropods. Complete the table; how many groups are there?

Groups	Examples	Body/Appendages	Habitat
Crustaceans			
	Centipede, scolopendra		
		8 legs	
	Butterfly, ant, bee, wasp		

24 Write one of these words (oviparous, ovoviviparous, viviparous) next to its explanation, and give a good example of animal for each type of embryo development.

Explanation	type of development	example of vertebrate animal
Female lay eggs in the environment and usually forget about them. Embryo develops inside the egg till hatching.		
The embryo develops in its egg inside the female uterus until it is next to hatching then female lay the egg in the environment.		
Female keep the embryo inside its uterus, where it develops, until birth		

25 Do a scheme with all the characteristics and types of vertebrates and invertebrates.