



Colegios
"El Valle"

Actividades de verano 2019

Nombre y apellidos:

Curso: _____

Grupo: _____

1º ESO

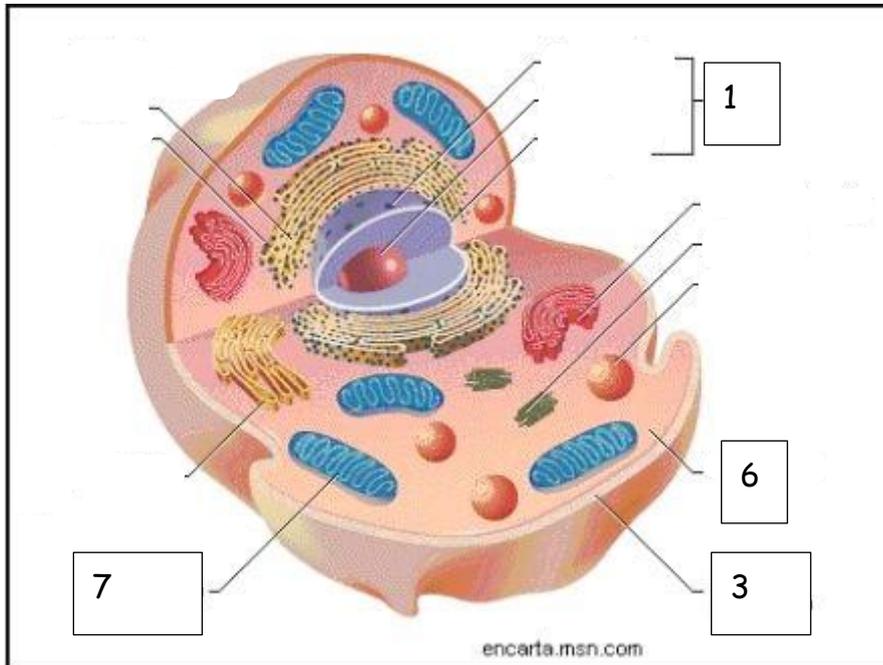
Biology & Geology

UNIT 1. THE BIOSPHERE

1. Draw a prokaryotic cell explaining its parts.

2. Eukaryotic cell:

a. Fill the parts of the cell and explain the ones with number 1, 3, 6 and 7.

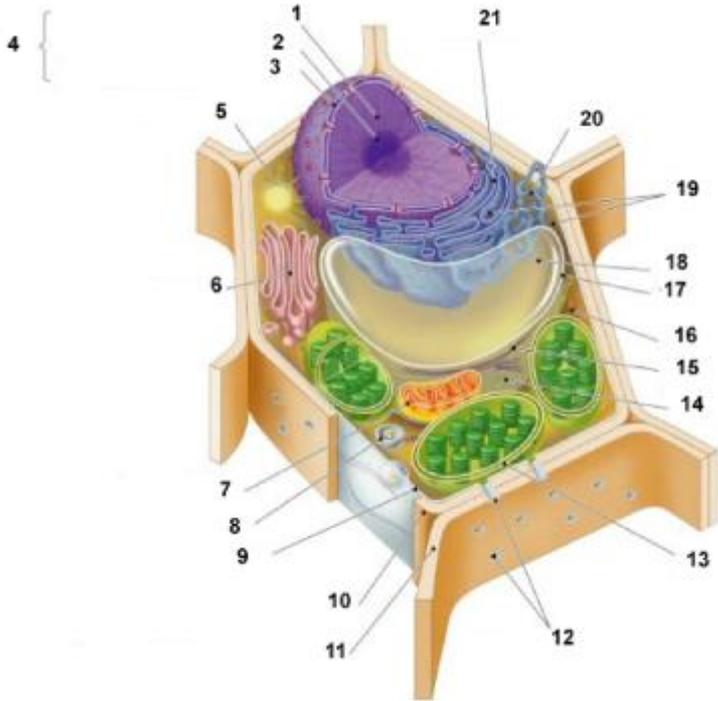


ORGANELLE	CHARACTERISTICS AND FUNCTION
1.	
3.	
6.	
7.	

Which type of cell is it? Explain your answer.

3. Eukaryotic cell:

a. Fill the parts of the cell and explain the ones with number 6, 10, 15, and 20.



ORGANELLE	CHARACTERISTICS AND FUNCTION
6.	
10.	
15.	
20.	

b. Which type of cell is it? Explain your answer.

UNIT 2. THE SIMPLEST LIFE FORMS

1. Explain the vital functions of bacteria.

2. Classify bacteria according to their mode of nutrition and their shape.

3. Are all bacteria harmful? Explain your answer and give examples to support your explanation.

4. Complete the table to show the similarities and differences between algae and protozoans...

Algae	Protozoans	Both

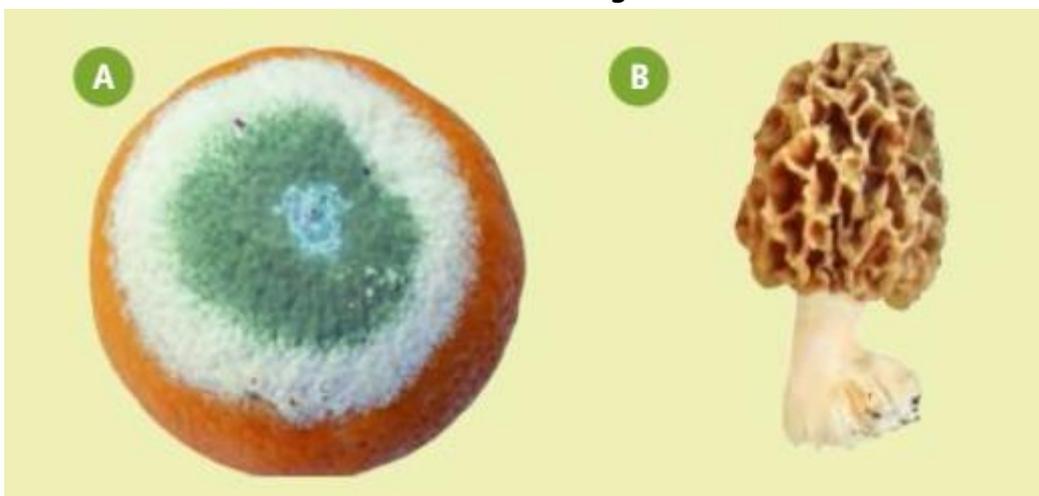
5. Describe vital functions of protozoans

6. Search for information on the Internet about the following human diseases and complete the table below in your notebook.

	Microorganism responsible	Way of transmission	Symptoms	Countries affected
Sleeping sickness				
Malaria				
Amoebic dysentery				
Chagas' disease				

7. Look at the following pictures and say:

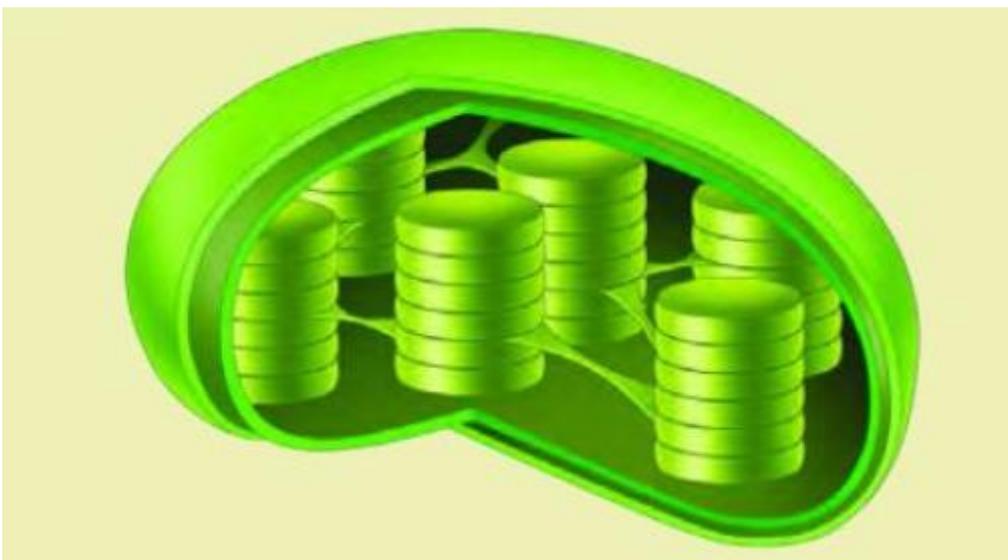
- a) The type of fungus shown.
- b) If it is a unicellular or a multicellular organism.



8. Draw and explain the structure of viruses.

UNIT 3. PLANTS

1. Look at the following diagram.



- a) Which structure does this diagram represent?
- b) What is its function?
- c) In which type of cell can this be found?
- d) Why are they so important for the environment?

2. Complete the table below with the characteristics and types of the main groups of plants.

	Non-flowering plants	Flowering plants
Characteristics		
Main groups		

3. Both bryophytes and pteridophytes produce spores. Explain the differences in the way the two groups form their spores.

4. Label the following diagram.



- a) Which type of plant is shown in the diagram?
- b) Why are these plants so important for the environment?
- c) Complete the table below, insert the structures from the diagram above and identify their main functions.

Structure	Function

5. What is the difference between sexual and asexual reproduction plants?
Draw a diagram explaining all the processes involved in sexual reproduction in plants.

6. Draw a diagram of the female reproductive organs in angiosperms. In which part is the seed produced?

7. Describe the steps involved in the transformation of water and minerals into phloem sap.

8. Can plants carry out photosynthesis at night? Explain your answer then research plant respiration. Draw a diagram to illustrate day and night time plant gas exchange.

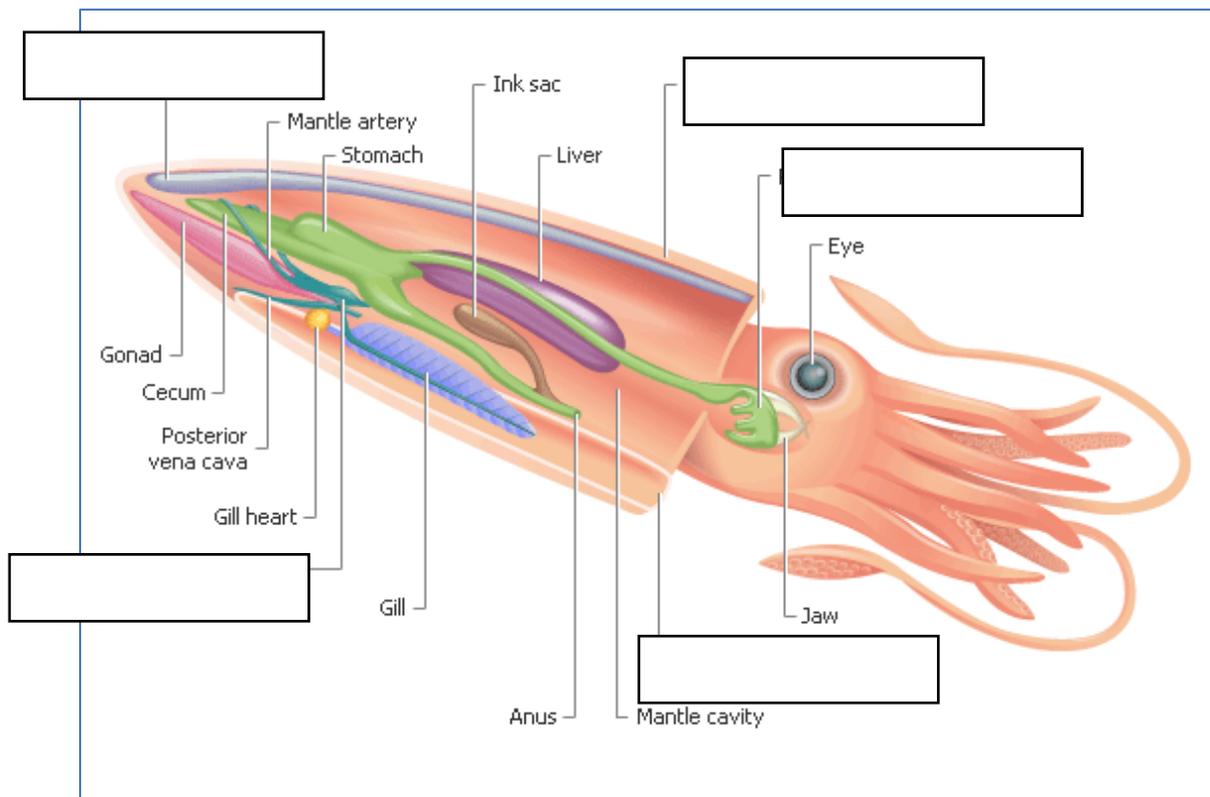
9. The roots, the leaves and the stem are the vegetative organs of flowering plants. They are essential for maintaining life through the function of nutrition. Search for information and fill the chart in below with the function that these parts are involved in.

Part	Function
<p style="text-align: center;">Roots</p>	
<p style="text-align: center;">Stem</p>	
<p style="text-align: center;">Leaves</p>	

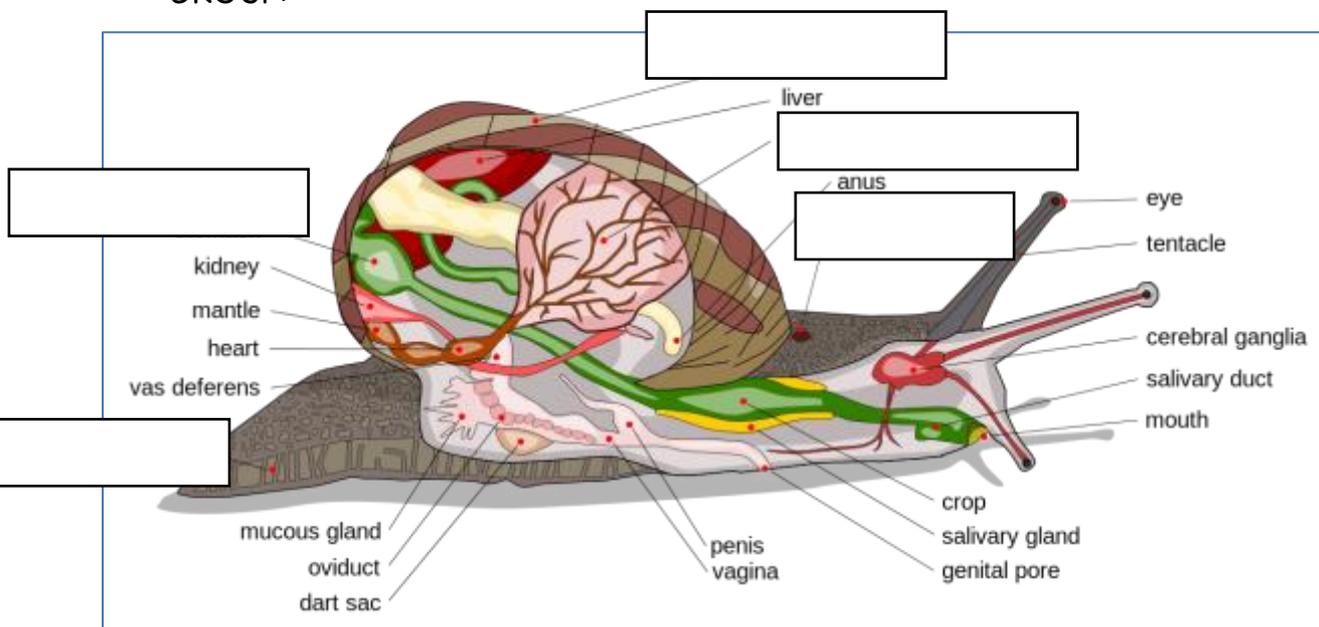
UNIT 4. INVERTEBRATE ANIMALS

1 Fill the following diagrams of molluscs with the right word according to each structure:

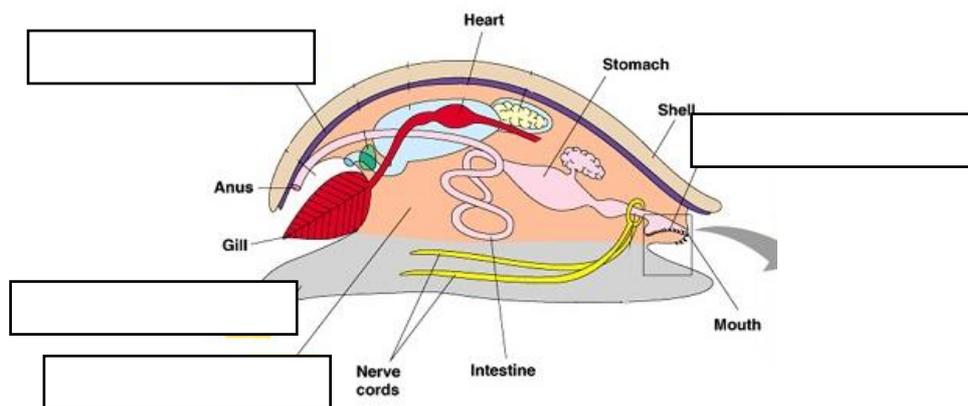
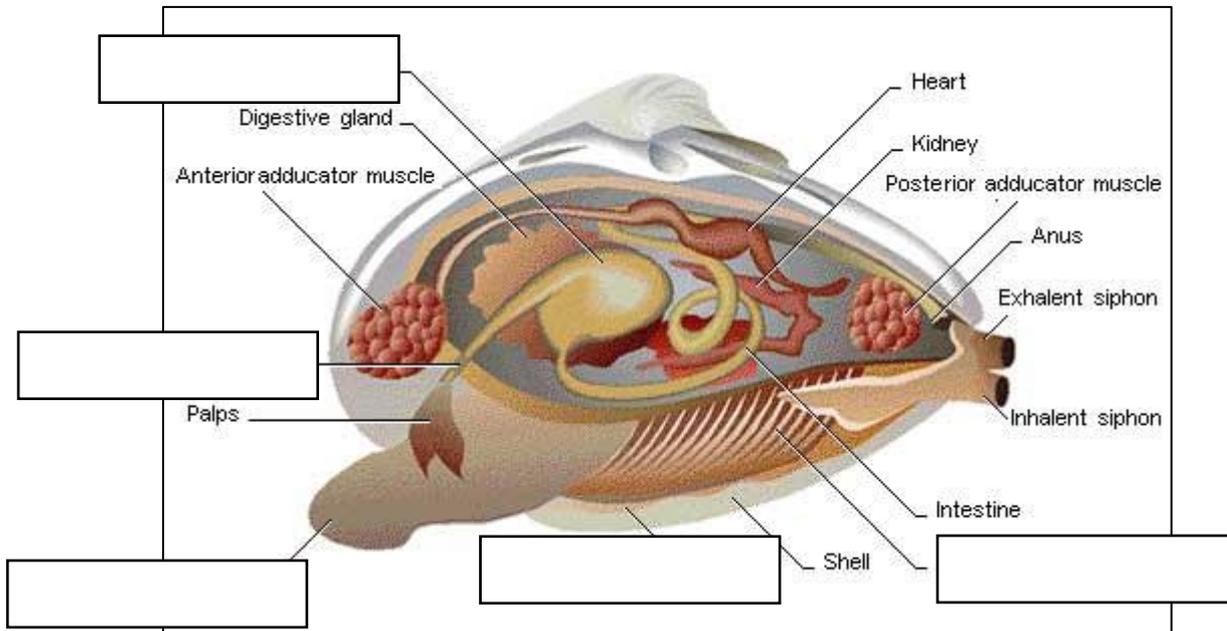
GROUP:



GROUP:



GROUP:



2. Draw a poriferan and explain why are they considered filter feeders.

3. In which body part are the following organs or systems in the arthropod body?

- Reproductive system: _____
- Heart: _____
- Brain: _____
- Excretory system: _____
- Legs and wings: _____

4. What's the name of the exoskeleton change process that arthropods perform in order to grow? And the process through which they change completely their body shape?

5. Fill the following table with the different body parts of the 4 different arthropod groups:

Arachnids		
Crustacean		
Myriapods		
Insects		

6. Fill the following table with the name and number of the different appendages presented on the different body parts:

Arachnids		
Part 1		
Part 2		
Crustacean		
Part 1		
Part 2		
Myriapods (centipedes)		
Part 1		
Part 2		
Myriapods (millipedes)		
Part 1		
Part 2		

Insects				
Part 1				
Part 2				
Part 3				

7. Describe the body structure of an echinoderm. Do a drawing indicating the different body structures.
Explain also the different groups echinoderms are classified into and give examples of,

UNIT 5. VERTEBRATE ANIMALS

1. Vertebrates have an internal skeleton. Fill in the chart with information about the advantages and disadvantages of internal skeleton and exoskeletons. Decide which one you think is better suited for arboreal, aerial, aquatic and terrestrial environments.

	Advantages	Disadvantages
Internal skeleton		
Exoskeleton		

2. Living fossil is a term coined by Charles Darwin to describe creatures that have remained much the same for millions of years.
- Search for information about these so-called living fossils and name five of them.
 - Choose one of them and write a short report about it.

3. Both fish and mammals need oxygen to breathe. Compare respiration in fish and mammals.

4. Explain the differences between:

- a) Birds and bats.
- b) Fish and dolphins.

5. Give examples of biped and quadruped vertebrates. What do you think the advantages of bipedalism are?

6. Explain the similarities and differences between amphibians and reptiles.

7. Explain the meaning and give examples for the following ways reproduction:

- Viviparous:

- Oviparous:

- Ovoviviparous: