

Science Booklet

Summer Work



Grade 6

Question 1:

Indicate the true statement(s), and correct the false one(s).

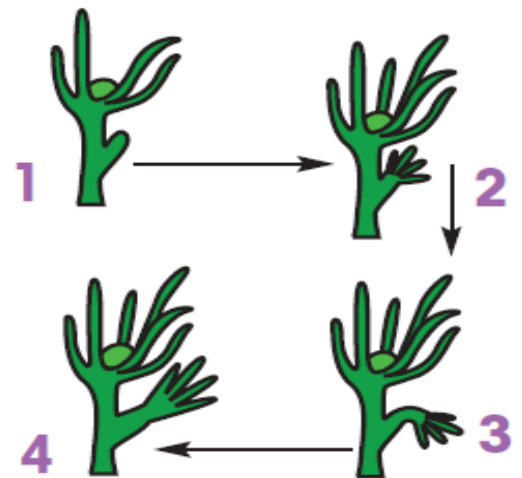
- a- The potato plant is a unicellular organism.
.....
- b- The paramecium and amoeba are multicellular organism.
.....
- c- The red blood cells transport nitrogen gas.
.....
- d- The white blood cells are responsible for the body immunity.
.....
- e- Sexual reproduction is when fertilization between the sperm and the ovum occurs.
.....

Question 2:

It's known that hydra reproduces by "budding".

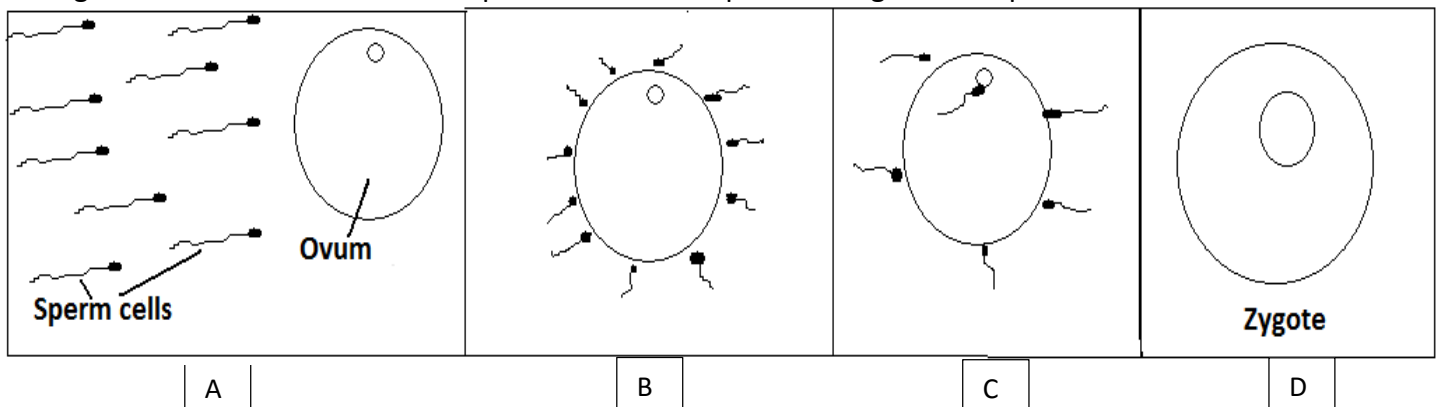
Contribute each step below to the numbers on the figure.

- A- The daughter hydra is now full independent.
- B- The bud develops a mouth and tentacles.
- C- The hydra develops a "bud".
- D- When the bud is fully formed, the daughter hydra detaches from its parent.



Question 3:

The figure below illustrates a certain process that takes place during sexual reproduction.

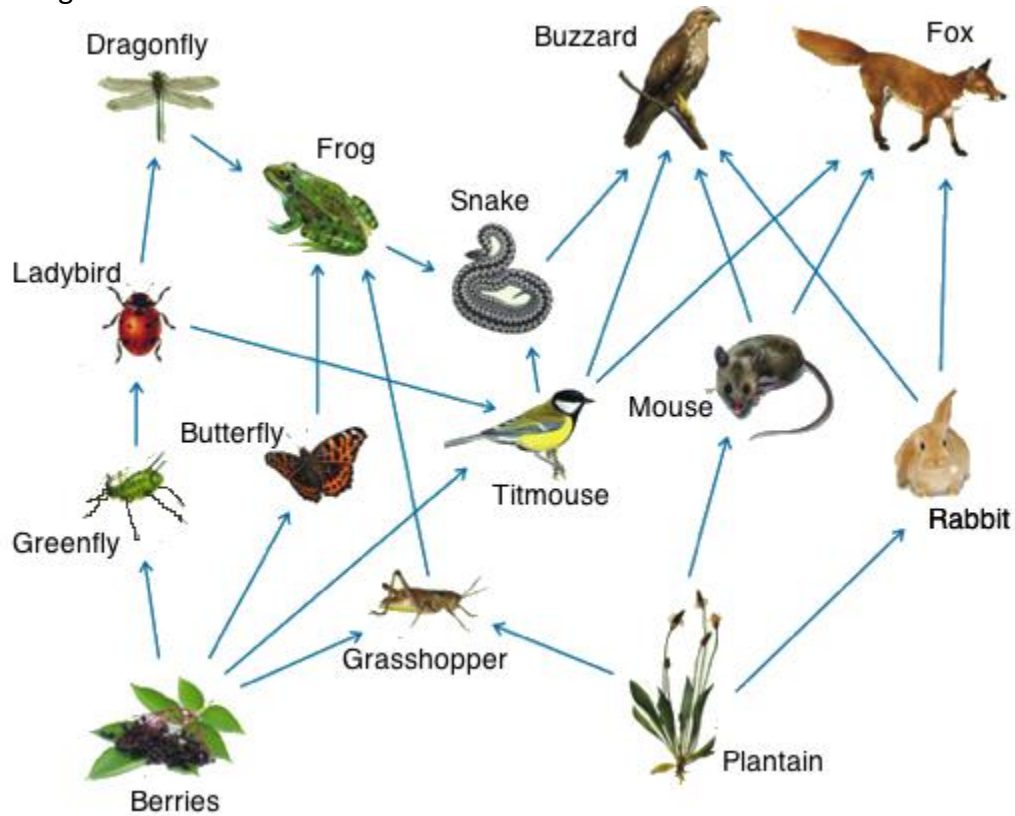


- a- Give the name of this process.
.....

- b- Give a title for each picture.

Question 4:

Consider the following food web:



- a- Pick out from the above food web, four different food chains.

.....

.....

.....

.....

- b- Pick out from the food web, the names of two producers.

.....

- c- Pick out from the above food web, the names of two carnivores, and the names of two herbivores.

.....

.....

- d- What will happen for the given food web, if the berries and plantain disappear?

.....

Question 5:

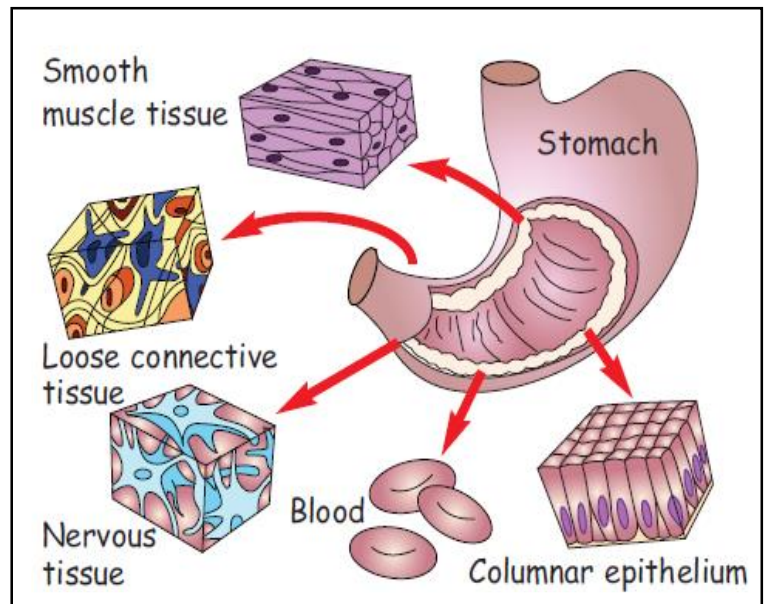
Observe the figure below, then answer the following questions:

a- Give the name of the organ represented in the figure.

b- Is this organ part of the digestive system or respiratory system?

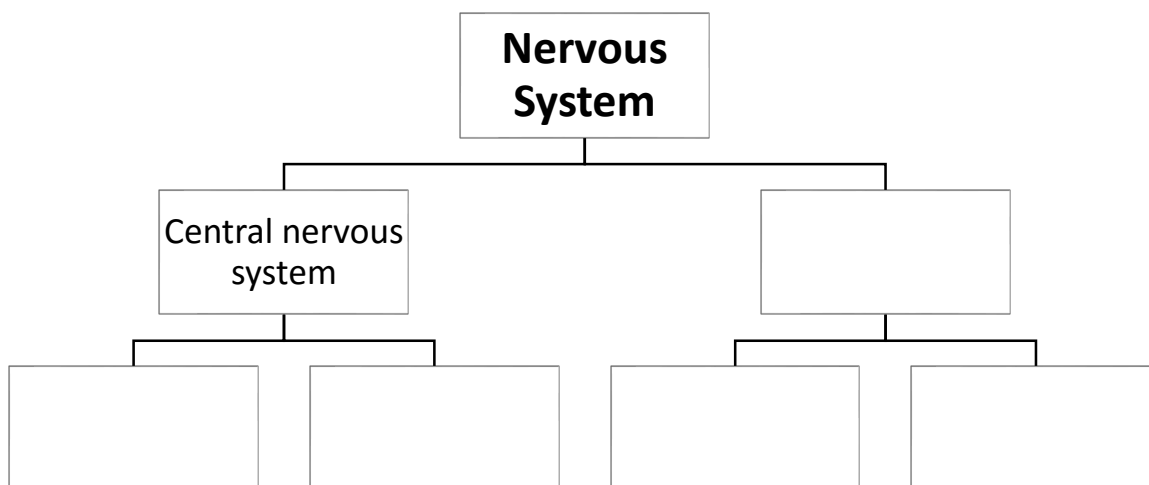
c- Give the name of the different tissues that constitute this organ.

d- What is the role of the epithelial tissue of This organ?



Question 6:

Complete the following concept mapping:



Question 7:

When you touch a hot object, we quickly remove your hand. Write the pathway of the nervous message.

.....
.....

Question 8:

Classify the following actions as voluntary or reflex (involuntary):

- a- Blinking of the eyes:
- b- Kicking a ball:
- c- Playing chess:
- d- Removing your hand quickly after touching a hot object.....
- e- Respiratory movements (inhalation and exhalation):

Question 9:

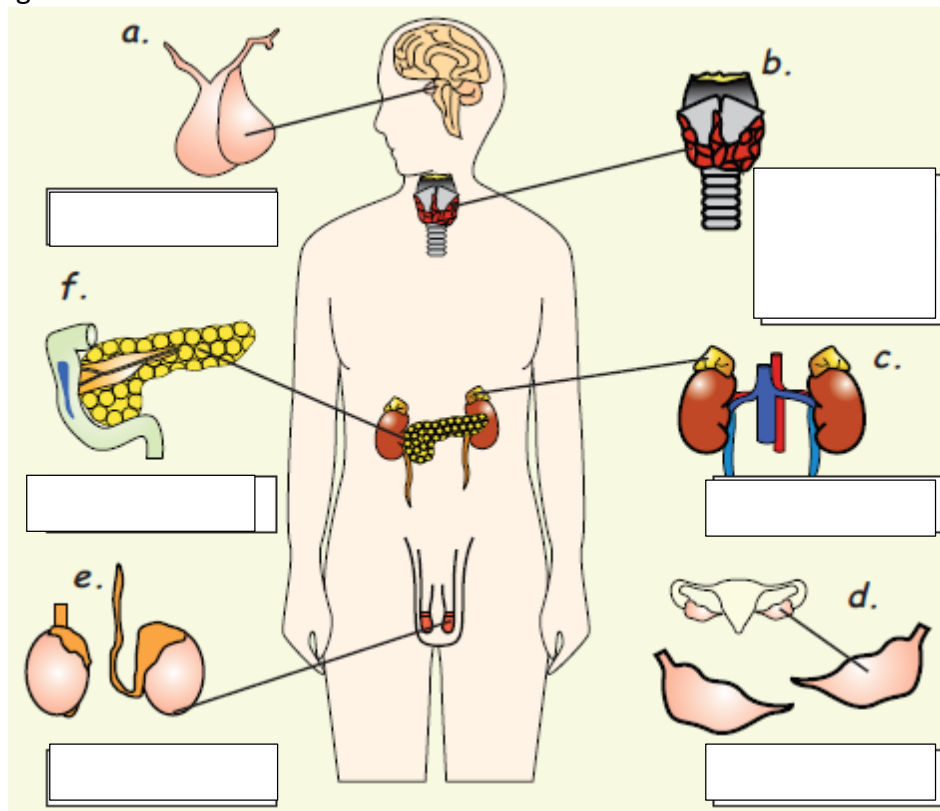
Complete the table below:

Name of Gland	Where it's located?	Hormone it secretes	Function
Pituitary gland		Pituitary hormones	
	In front of neck		Controls the speed at which the body works
Pancreas	Digestive system		
	On kidneys	Adrenaline	
Parathyroid glands			Regulate the calcium content of blood
Ovaries	Female reproductive system		

Testicles	Male reproductive system		
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Question 10:

Label the following figure:



Question 11:

Read the following text, then answer the questions below:

B. Alcohol and your Health

What Is Alcohol?

Alcohol is made when grains, fruits, or vegetables are fermented using yeast or bacteria to change the sugars in the food into alcohol.



When a person drinks alcohol, it is absorbed into her bloodstream. From there, it affects the central nervous system and blocks the messages reaching the brain. This alters a person's perceptions, emotions, movement, vision, and hearing.

Consuming large amounts of alcohol causes intoxication. People who have overused alcohol may lose their coordination, get confused and disoriented. Reaction times are slowed dramatically — which is why people are told not to drink and drive.

a- Give the name of three types of food that can be used to produce alcohol.

b- Give the names of the two living organisms used for the fermentation.

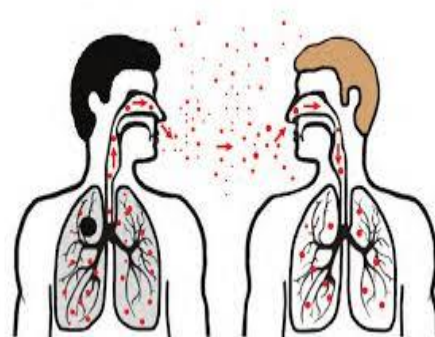
c- After alcohol goes to the blood, what does it affect directly?

d- Consuming large amounts of alcohol causes what?

e- How can you describe an alcoholic person?

Question 12:

Describe in each picture, how is microbe transmission to the body facilitated



Question 13:

Describe in each picture, how we are helping the body in keeping the microbes outside the body.



.....

.....

Question 14:

Complete the table below:

Name of element	Chemical Symbol	Name of element	Chemical Symbol
Hydrogen		Iron	
	He		Cu
Lithium		Sodium	
	C		Al
Magnesium		Potassium	

Question 15:

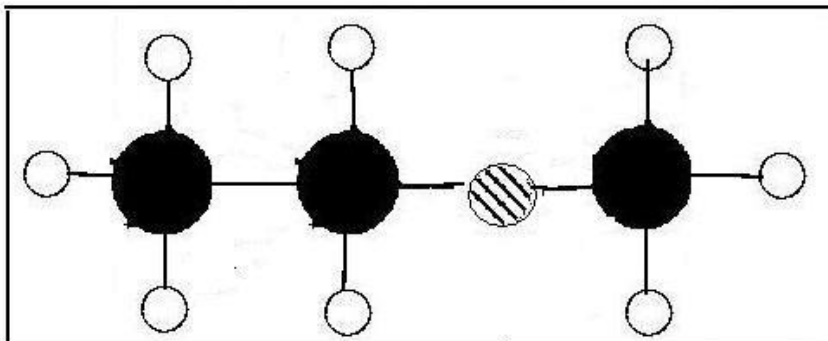
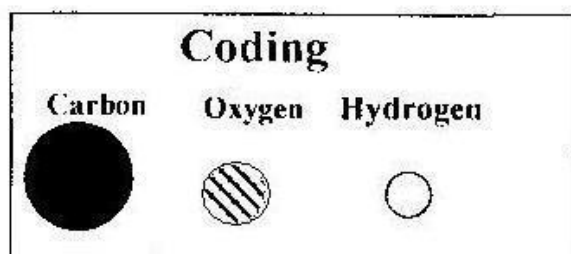
Classify the following molecules as molecular elements or molecular compounds.

CO₂ – O₂ – Cl₂ – NH₃ – O₃ – N₂ – H₂O – CH₄ – SO₂ – F₂

Molecular compounds	Molecular Elements

Question 16:

The diagram below represents a propanol molecule



a- Give the names of the elements that constitute a propanol molecule.

.....

b- Indicate the number of each element that are found in a molecule of propanol.

.....

c- Classify propanol molecule as molecular element or molecular compound.

.....

d- Which one of the molecular formulas represents a propanol molecule?

- C_3H_6O

- C_3H_8O

- C_3H_2O

e- How many carbon elements do we have in 3 molecules of propanol?

.....

f- How many hydrogen elements do we have in 2 molecules of propanol?

.....

Question 17:

Indicate if the below changes are physical or chemical:

a- Crushing an aluminum can:

b- Dissolving sugar in water:

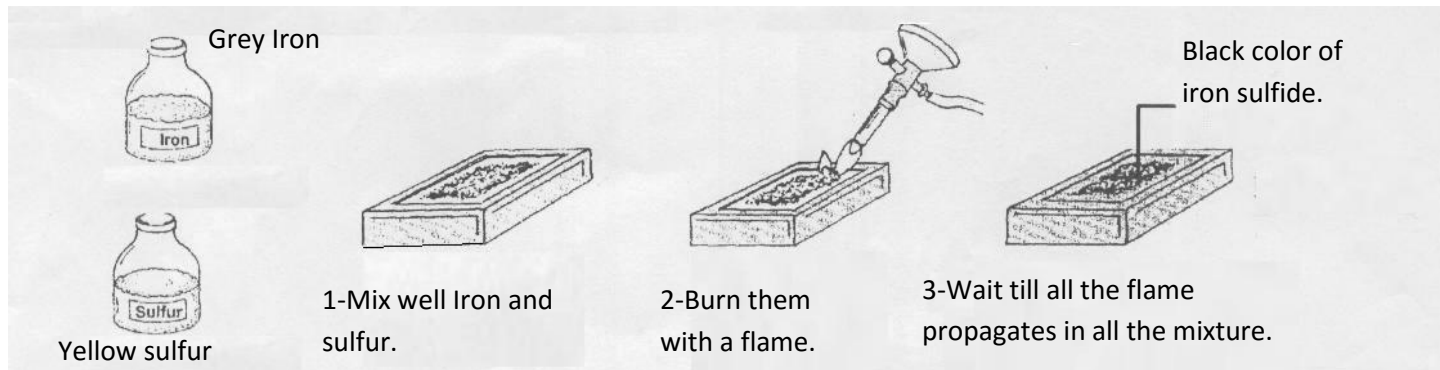
c- Heating wax to melt:

d- Photosynthesis in plants:

e- Heating white sugar:

Question 18:

The document below shows a reaction between Iron and Sulfur.



a- Write a text to describe the corresponding experimental procedure.

.....

.....

b- Is it a chemical reaction? Justify your answer.

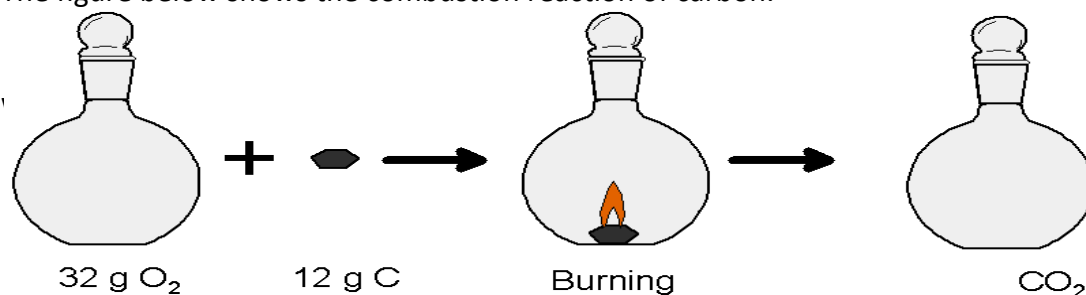
.....

c- Write the word equation.

.....

Question 19:

The figure below shows the combustion reaction of carbon.



("C" means carbon solid).

a- Give the names of the reactants.

.....

b- Give the name of the product.

.....

c- Write the word equation.

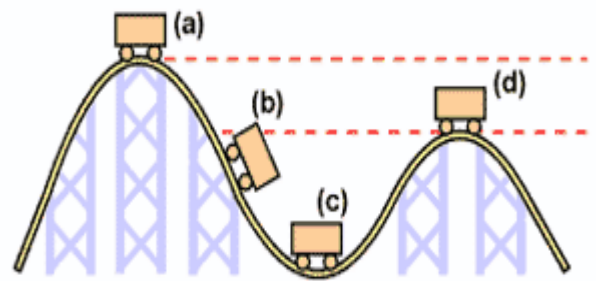
.....

d- Deduce the mass of carbon dioxide.

Question 20:

Observe the figure below, then answer the questions:

a- The wagon at (a) is at rest. Does it have potential energy
Or kinetic energy?



b- The wagon starts moving down and passes by point (b).
What type of energy or energies does it have?

c- The wagon reaches point (c) while it's still moving. What type of energy does it have?

d- The wagon moves up and reaches point (d) and stops. What type of energy does it have?

Question 21:

a- Represent the table below in a bargraph.

Planets (and moon)	Earth	Moon	Mars
Gravitational Strength (N/Kg)	10	1.6	3.7

b- A person of mass 70 Kg is found on planet Earth. Calculate his weight.

.....

c- The same person is now on moon. Calculate its weight.

.....

d- Where it is easier for you to carry this person, on Earth or on moon? Justify. (1 mark)

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