MINISTRY OF EDUCATION AND TECHNICAL EDUCATION

وزارة التربية والتعليم والتعليم الفني



Performance Tasks and Assessments

Science

Primary Six









First Term

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Introduction

The Ministry of Education and Technical Education recognizes the importance of empowering teachers with effective tools that elevate classroom performance, enhance the quality of education, and improve its outcomes. This is a real response to the voices of teachers, interacting with the feedback channels from the educational field, and meeting the needs of teachers for flexible and comprehensive educational tools that assist them in fulfilling their noble educational mission. This book has been designed to serve as an integrated educational support for teachers, helping them in planning and executing their teaching tasks efficiently. It also facilitates continuous assessment processes. The content has been designed to offer diverse models of effective classroom performance and educational activities created based on an interactive methodology that enhances active learning. It contributes to a qualitative shift in teaching practices, clearly focusing on the student as the core of the educational process. The book includes formative and diagnostic questions, as well as purposeful learning tasks that students can complete as homework, enhancing the integration of learning inside and outside the classroom and contributing to the sustainable construction of learning for students. These tools help develop critical and creative thinking, deepen understanding, and support and enhance student motivation, giving them a sense of achievement and excellence. It also includes short weekly tests and periodic assessments, allowing teachers to measure the extent of learning outcomes and address learning gaps early, providing feedback on the initial results. The performances at the end of each month are concluded with immediate training sessions that help improve student performance. These assessments are gradual, taking into account individual differences and targeting various levels of cognitive development, within a framework of diversity, depth, and integration, preparing students for monthly tests efficiently. This book is a true translation of the Ministry's directions to ease the burdens on parents, provide supporting educational content that enriches the classroom environment, and allow teachers more time for educational innovation and productive interaction with their students. It also forms an effective tool in supporting the Ministry's direction to enhance learning outcomes, achieving a real transformation in the learning environment—from memorization to understanding, from rote learning to application, and from passive reception to active participation. When we place this work in the hands of teachers and students, we hope it will be a valuable contribution to improving academic performance, enhancing the quality of education, and becoming an additional cornerstone in building a generation that is aware and knowledgeable, equipped with the skills and competencies needed for success in a world that demands creativity and innovation. It aims to have a tangible impact in realizing an ambitious educational vision for the future of education in our beloved country .

Allah is the one sought for help, and He guides to the right path...

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Chapter 1: Conditions for Burning

First: Classroom Performance: my candle

(1- 1) How Things Burn and Air

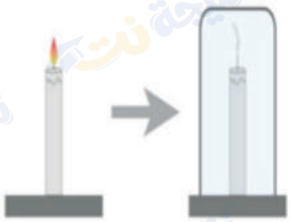
week:……

Activity 1: Observe the opposite figure

Date: ……/……/…..

a) What do you observe before placing the glass over the candle ……because it needs fresh air from the surroundings.

b) Why does the candle flame go out after placing the glass over it?



……

c) What would happen if one side of the glass had a hole at the top and another hole at the bottom?

……

[1- 2] The Role of Oxygen

week:……

Date: ……/……/…..

Activity 2: Observe the opposite figure.

1- What do you observe?

.....

2- What is the relationship between oxygen and the burning occurring in this activity?

.....

3- Does the composition of the air inside the glass change?

.....

4- Air is a mixture of gases, such as …… gas, which makes up 78%, and oxygen gas, which makes up ……..%. There is also a very small amount of carbon dioxide.



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[1- 3] Air After Burning. Date: ...../...../.....

After the candle flame goes out, what do you observe?



Observation: Smoke appears inside the glass then passes through the clear limewater it turns it milky white. This is an evidence of the presence of .....gas.

Conclusion : the presence of a large amount of ..... gas causes the candle flame to go out, while the presence of ..... gas in large amount increases the burning of the candle.

From the opposite figure:

Compare the effects of the different gases on the candle

1- Effect of carbon dioxide gas
.....

2- Effect of oxygen gas
.....

3- Effect of nitrogen gas
.....



Second: Homework (Homework Task)

1) Complete the following sentences.

a. The burning requires ..... gas
b. Things keep burning due to the flow of .....
c. The gas produced by combustion is .....
d. Air is a mixture of gases, such as..... , ...,and .....
e. The percentage of oxygen gas in the air is .....

2) Give reason for each of the following.

a. The candle flame goes out inside a closed container.
.....

b. The candle flame keeps burning when it is placed in an open cup.
.....

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3)Think and conclude.

a. Why does the candle does not keep burning for a long time inside a sealed container?

.....

b. How can you know that air changes after burning?

.....

c. What is the importance of oxygen for a candle flame?

.....

d. Does moving air help things to burn?

.....

4) Compare between :

a. The composition of air before and after burning

.....

b. Flame of two candles, one placed in a closed cup and the other in an open cup.

.....

Third: Weekly Assessment

Group (A)

1- Based on your study of the activity for the effect of oxygen gas on burning, arrange the following steps in the correct order:

( ) The candle flame goes out.
( ) The candle is lit.
( ) The candle is placed inside a closed container.
( ) The amount of oxygen decreases.

2- Give reason for each of the following

a. The percentage of oxygen decreases during burning.

.....

b. Burning candles are placed in open cups rather than closed containers.

.....

3- Complete the following

a. If you have three glass containers. Container **(1)** contains oxygen, container **(2)** contains nitrogen, and container **(3)** contains carbon dioxide. A lit candle is placed in each container. The candle will keep burning in container number. .....

b. The gas necessary for burning is.....

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4- Compare between :

a-The composition of air before and after burning

.....

b- The presence and absence of oxygen in the burning process

.....

5- What would happen if .....?

a. Fresh air could not reach the fire

.....

b. The amount of air around the candle increases

.....

Group (B)

1- Choose the correct answer:

A. When burning occurs, the produced gas is .....

(a) Oxygen. (b) Carbon dioxide. (c) Nitrogen. (d) Hydrogen.

B. A burning candle inside a closed container , It is .....

(a) burns more strongly. (b) keeps burning as it is.

(c) goes out after some time. (d) burns with a pop sound.

2- Give a reason for each of the following

a. Clear limewater is used to detect carbon dioxide gas.

.....

b. The amount of oxygen decreases during burning.

.....

3- Complete the following

a. The candle flame goes out when ..... gas is used up.

b. ..... gas does not support burning.

4- Compare between:

a- The role of oxygen gas and carbon dioxide gas in the burning process.

.....

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b- The composition of air before and after burning.

.....

5- Answer the following question :

a. Why does the candle not keep burning for a long time inside a sealed container?

.....

b. How can you know that air changes after burning?

.....

c. What is the importance of oxygen in the burning process?

.....

Group (C)

1- Choose the correct answer:

a. The candle flame becomes weaker and goes out because of.....

(A) An increase in oxygen. (B) A decrease in oxygen.

(C) An increase in light. (D) Fresh air

b.The gas which its percentage is decreased after the burning is.....

(A) oxygen (B) carbon dioxide (C) hydrogen (D) nitrogen

2- Give reason:

a- The gas that increases after burning is carbon dioxide

.....

b- Oxygen is important in the burning process.

.....

3- Complete the following:

a. Oxygen gas helps in.....

b. Air contains several gases, such as....., ..., and .....

4- Do all the gases that make up air help in burning? Explain your answer.

.....

5- Answer the following:

What would happen to the burning process if air did not flow?

.....

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Chapter 2: Respiration

First: Classroom Performance – Respiration Experiment

Week .....
Date:..../..../.....

[2- 1] How Does Respiration Occur?

Activity 1: The figure shows two glasses containing clear limewater.



Complete:

A change in the color of the clear limewater in the glass appears after ……of…….....air.

This confirms that exhaled air contains a high percentage of ..... gas

[2- 2] How Lungs Work?

Activity 2: You learned that through the blood vessels surrounding the lungs, oxygen in the air moves into the blood, while carbon dioxide in the blood moves into the air.

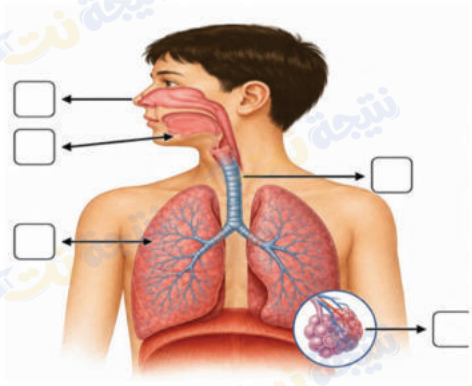


Complete the following sentences:

- Gases are exchanged between ……. gas and …….. gas.
- During the breathing process, air moves into the……., which is called inhalation.
- During the process of ……., air moves out of the lungs.

Activity 3: Label the Diagram

Write the correct numbers on the diagram:



1. Right lung
2. Trachea (windpipe)
3. Nose
4. Alveolus
5. Mouth

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Second: Homework Task

1- Complete the following sentences

a. Air enters the body through the …… and……
b. The lungs are the site where …….. are exchanged in the body
c. Blood transports …….. gas to the whole body.
d. Fish use …… for breathing underwater.
e. Oxygen moves into the blood through the …… around the lungs, and then the .....pumps it to the whole body.

2- Give reason for each of the following

a. Gas exchange takes place in the alveoli
……
b. Limewater turns milky when exhaled air is passed through it
……
c. Living organisms need oxygen
……
d. Fish have gills
……

3- Compare between each of the following :

a. Inhalation and exhalation in terms of the type of gas and the direction of air movement
……
b. Breathing in fish and breathing in cats in terms of the respiratory organ
……

4- Answer the following questions:

a-Why is it important to keep the air in the room fresh?
……
b- Why can't fish live out of water for a long time?
……
c- Describe the path of oxygen and name the organs through which it passes until it reaches the blood.
……
d- What happens to the body if it does not get enough oxygen?
……
f- Why does limewater turn milky when exhaled air is passed through it?
……

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Third: Weekly Assessment

Group (A)

1- Complete the following:

a. Inhaled air is rich in …… gas, while exhaled air is rich in …….. gas.

b. During breathing, ……. air contains a higher amount of carbon dioxide.

c. The heart pumps blood carrying ……. gas to all parts of the body.

d. In the alveoli, …….. gas and …….. gas are exchanged.

e. Air enters through the nose or mouth and passes through the …… until it reaches the lungs.

2- Answer the following:

a. What is the difference between inhalation and exhalation in terms of the amount of oxygen?

……

b. Describe the path of oxygen from the outside air until it reaches the body's cells

……

3- Give reason for each of the following:

a. The chest moves up during inhalation

……

b. The lungs contain a very large number of alveoli

……

4- Put (✓) for the correct statement and (×) for the incorrect statement:

a. Oxygen leaves in the exhaled air, while carbon dioxide enters the body during inhalation.( )

b. The lungs expand during exhalation. ( )

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Group (B)

1- Complete the following:

a. The gas needed by the body to produce energy is……..

b. Air enters the lungs during……

c. Blood carries …… gas to the whole body.

2- Answer the following:

a. Why does the respiratory system work as a team.

……

b. Explain how gas exchange takes place in the lungs

……

3- Give a reason for each of the following:

a. Blood vessels surround the lungs.

……

b. The chest moves up and down during breathing.

……

4- Put (✓) for the correct statement and (×) for the incorrect statement:

a. Air enters the lungs during inhalation. ( )

b. Air leaves the lungs during inhalation. ( )

c. Inhaled air contains more oxygen than exhaled air. ( )

Group (C)

1- Explain the process of breathing in humans. In your answer, mention:

- The organs of the respiratory system.
- What happens during inhalation.
- What happens during exhalation.
- How gases are exchanged in the alveoli.

……

……

……

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2- Trace the path of oxygen during inhalation, naming the organs it passes through:

.....

3- Compare between :

Inhaled air and exhaled air

.....

4- Choose the correct answer:

1- Which gas leaves the body during exhalation in large amount ?

(A) Oxygen only (B) Carbon dioxide

(C) Nitrogen only (D) Food

2- Where does gas exchange take place ?

(A) Trachea. (B) Alveoli. (C) Nose. (D) Mouth.

3- After passing through the nose, air moves to the

(A) Stomach (B) Trachea (C) Heart (D) Esophagus

4- The percentage of oxygen during exhalation

(A) decreases. (B) increases. (C) stays the same. (D) disappears

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Chapter 3: Digestion

First: Classroom Performance – Follow the Journey of Food

[3- 1] Where Food Goes?

Week:……..

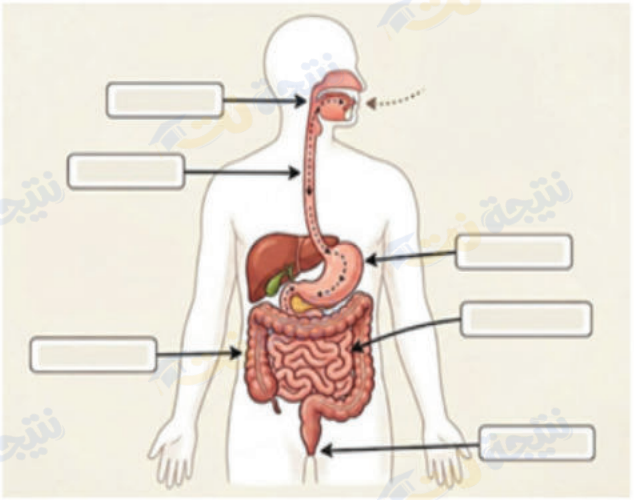
Date:…./……/…….

Activity 1: Follow the journey of food through your body:

- Look at the diagram of the digestive system in front of you. Work with your classmates to trace the path of a piece of bread after you eat it.

1- Label the diagram

Write the name of each organ in the empty boxes



2- Put the numbers from (1) to (6) to show the correct path of food from the beginning to the end.

Mouth ( ) Pharynx ( ) Esophagus ( ) Stomach ( )

Small intestine ( ) Large intestine ( ) Anus ( )

3- Complete the sentence based on the diagram

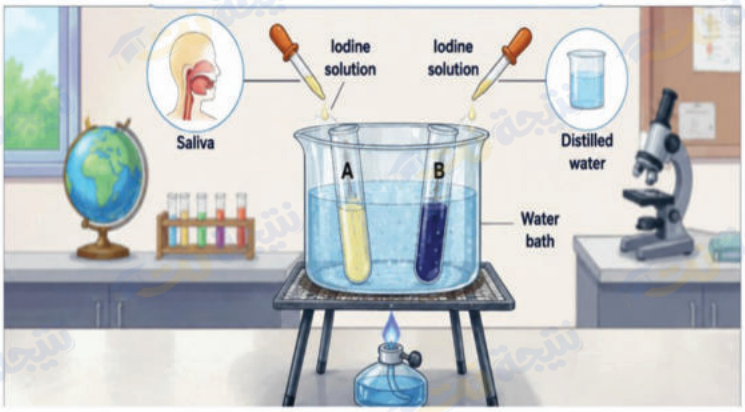
Digestion begins in the mouth as food passes through the …….. Then, the Food moves through a muscular tube called the …… until it reaches the stomach, where it is turned into a semi-liquid substance.

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[3- 2] The Function of Saliva

Activity 2: Testing the Effect of Saliva on Starch

Starch Digestion Experiment



The figure shows an experiment used to test whether saliva helps digest starch

In the following observation table, identify what happens to the color of the solutions in the two test tubes after adding dilute iodine solution. Observe and record your results.

Test tube	Contents	Color after adding
A	Starch solution + saliva (in a water bath)	.....
B	Starch solution + water (in a water bath)	.....

Explain scientifically why the solution in test tube (A) does not turn dark blue ?

.....

.....

Second: Homework

1- Answer the following: Date:...../...../.....

- Where does food go after you swallow it? Describe the journey of a piece of bread from the moment it enters your mouth?

.....

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2- Complete the following:

a. Starch digestion begins in the……

b. Food moves from the mouth to the stomach through the…….

3- Arrange the journey of food:

Arrange the following organs in the correct order to show the path food takes during digestion

Stomach - Mouth - Large intestine-Pharynx - Esophagus -Small intestine

..... → ..... → ..... → ..... → ..... → .....

4- Give a reason for each of the following:

a. Why is digestion important for the body?

……

b- A huge network of blood capillaries surrounds the wall of the small intestine.

……

5- Ahmed ate a meal containing bread, meat, salad, and a glass of milk. Answer the following

Where does the digestion of bread begin?

……

Third: Weekly Assessment

Group (A)

1- Complete the following:

a. The process of breaking down food and changing it into a simpler form that the body can use is called……

b. The stomach and intestines produce …… enzymes that chemically break down food

2- Put (✓) for the correct statement and (✗) for the incorrect statement:

a. Digestion is the process of changing food into a form that can be easily absorbed ( )

b. Food moves from the mouth to stomach after chewing ( )

3- What is the function of saliva in the digestion of food in the mouth?

……

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Group (B)

1- Complete the following:

a. The liquid secreted in the mouth that contains enzymes that break down starch is called……..

b. The muscular tube through which food moves from the mouth to the stomach is called the……

2- Put (✓) for the correct statement and (✗) for the incorrect statement:

a. The digestion process is the transformation of food to a form easily absorbed. ( )

b. Food enters the pharynx through the esophagus.( )

3) What happens if: undigested food reaches the anus.

……

Group (C)

1-Put (✓) for the correct statement and (✗) for the incorrect statement:

a. The color of iodine solution changes to blue when it is added to a test tube containing starch without saliva.( )

b. Saliva digests food completely in the mouth.( )

2) Compare between: mouth and anus in terms of their functions

……

3- What would happen if food reached the mouth without being chewed by the teeth and mixed with saliva?

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Chapter (3) Digestion

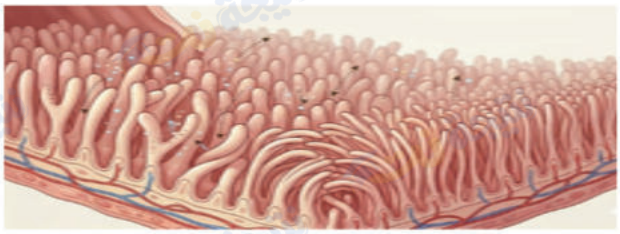
First: Classroom Performance –Absorption of digested food

[3- 3] How does absorption occur?

Week:.....

Date :...../...../.....

Activity 1: The Structure of the Small Intestine



- Examine the microscopic figure of the small intestine below, then complete the following statements:

1- These projections are called ....., as shown in the figure.

2- These projections play an important role in increasing the ..... surface area for nutrients.

Activity 2: The End of the Journey of Food (After Absorption)

You learned how food is digested and absorbed in the small intestine. Work with your group members to determine what happens to the absorbed nutrients and the undigested food, then answer the following questions:

1- Complete the following statement to explain how the body benefits from food:

1 -The absorbed nutrients are transported through..... in the body passing by....., where some nutrients are stored and sent to all parts of the body to be used.

2- What happens to the remains of food that the body cannot digest or get benefitted from it?

.....

3- Read the following statement, then rewrite it correctly based on what you have learned:

Food waste leaves the body directly from the small intestine in the form of a liquid.

.....

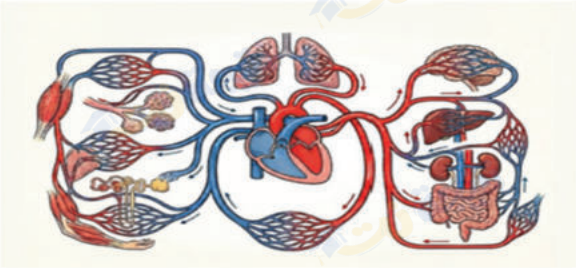
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Chapter 4: Blood Circulation and Excretion

[4–1] The Heart and Blood

Activity 1: Follow the Journey of Blood Through the Circulatory System

Look carefully at the diagram of the network of blood vessels surrounding the human body.



Then answer the following questions :

Use the colors shown in the diagram to help you.

Complete the following statements:

1- The red color in the diagram indicates blood rich in …….. and nutrients .....

2- The blue color in the diagram indicates blood rich in .....

3- The organ that works as a continuous pump to pump blood to all parts of the body is the……

Activity 2: Exploring the Heartbeat and Physical Activity:



Work with your classmate to investigate the effect of movement on your heartbeat, then record your observations:

The change of physical condition:

- While sitting quietly, place your hand on your chest (over your heart) and notice your heart rate
- Stand in your place and do light jumps for 15 seconds, then place your hand on your chest again and notice the difference in your heart rate.

Complete the table

Physical condition	**Description of heart rate (calm and normal/fast and strong)**
While sitting and resting.	……
After jumping and light running.	……

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In your opinion, why does the heart need to increase the rate at which it pumps blood during physical activity?

.....

Second: Homework

(1) Answer the following:

a. Explain the function of the muscles lining the inner wall of the small intestine.

.....

b. Compare the functions of the small intestine and the large intestine in detail

.....

c. What would happen if the muscles of the small intestine were removed? What effect would this have on the body?

.....

d. How does the circulatory system support the digestive system?

.....

e. Describe the pathway of blood through the circulatory system.

(2) Complete the following:

a. Most of the products of digestion are absorbed in the .....

b. ..... help increasing the surface area for absorption in the small intestine

(3) Explain the function of the heart in the body. Why is the heart considered one of the most important organs of the circulatory system?

.....

(4) Give reason for each of the following

a. The lining of the small intestine contains villi

.....

b. A large network of blood capillaries surrounds the wall of the small intestine

.....

(5) Why is the liver one of the most important organs in the body?

.....

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Third: Weekly Assessment

Group (A)

(1) Complete the following statement.

A. When exercising, the pulse becomes _____.

B. Digested food and oxygen are transported to all parts of the body through the _____.

C. The heart works to _____ the blood.

(2) How do blood vessels (the circulatory system) help the small intestine perform its function:

.....

(3) State the function of each of the following:

A. The heart:

.....

B. The lungs:

.....

Group (B)

(1) Choose the correct answer:

Study the diagram in front of you, then choose the correct answer:-

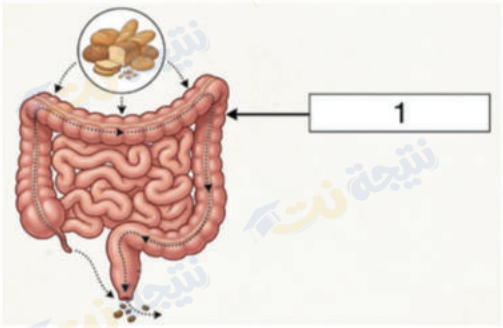
The organ indicated by the arrow (large intestine) absorbs .....

(a) Starch

(b) Protein.

(c) Water from waste

(d) Fats



(2) Give a reason for the following:

A dense network of blood capillaries and blood vessels surrounds the inner wall of the small intestine.

.....

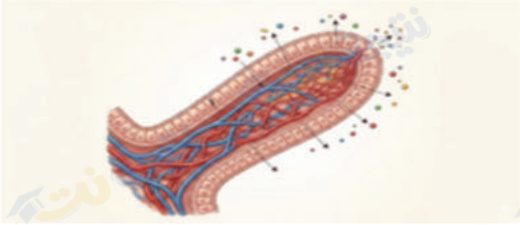
(3) What happens if undigested food remains in the body.

.....

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Group (C)

Look at the enlarged figure of one villus. It shows its very thin wall and the red and blue blood capillaries inside it to absorb the nutrients



(1) choose the correct answer:

Most of the nutrients are absorbed and transported into the blood inside the:

(Small intestine – Stomach – Large intestine – Pharynx)

(2) Complete:

Undigested solid waste leaves the body through an opening called……..

(3) Compare the functions of the small intestine and the large intestine in terms of:

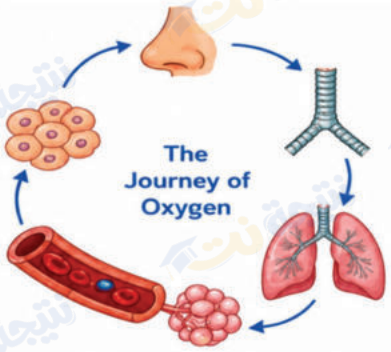
Nutrient absorption - Water absorption

Monthly exam (1)

Question 1

(A) Number the following structures in the correct order of the journey of oxygen during breathing

Alveoli	◯
Nose	◯
Body cells	◯
Trachea (windpipe)	◯
Blood capillaries	◯
Lungs	◯



(B) Choose the correct answer:

1-…… is one of the conditions necessary for burning to occur

(a) Sand (b) Oxygen

(c) Salt (d) Iron

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2-……gas is exhaled during breathing in large amount

(a) Oxygen (b) Carbon dioxide

(c) Nitrogen (d) Hydrogen

3- Gases are exchanged in the …… during the breathing process

(a) Stomach (b) Heart

(c) Alveoli (d) Liver

4- ……is the organ responsible for absorbing digested food is the

(a) Stomach (b) Esophagus

(c) Small intestine (d) Mouth

5-……is the organ that pumps blood to all parts of the body is the

(a) Lungs (b) Heart

(c) Liver (d) Kidney

Question 2

Put (✓) next to the correct statements and (×) next to the incorrect statements, correcting the incorrect statements:

1-The inner wall of the small intestine is lined with villi and folds to increase the surface area for absorption. ( )

2- Carbon dioxide helps combustion to occur. ( )

3-Air leaves the lungs during inhalation. ( )

4-Starch digestion begins in the stomach. ( )

5- Blood vessels carry blood between the heart and different parts of the body( ).

6-Exhaled air contains a greater amount of oxygen than inhaled air( ).

7- Food passes through the esophagus before reaching the stomach( ).

Question 3: Complete the following statements:

A. What is the name of the gas that turns limewater milky?

……

B. What happens to a burning candle flame when the percentage of

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carbon dioxide in the surrounding air increases?

……

C. Blood carries …….. gas to the body cells

D. The process of air entering the lungs is called ……..

E. The process of air leaving the lungs is called ……

F. …… helps food move easily.

G. Food moves from the mouth to the……

Question 4: Answer the following:

A. Arrange the following organs in the correct order to show the path of food:

(Stomach – Mouth – Esophagus – Large intestine – Pharynxs – Small intestine)

(1)…… (2) …… (3)…… (4)……

(5)…… (6) ……

B. What would happen if :the heart did not pump blood to the cells.

……

C. Determine which gas is present in each container

(Air – Oxygen gas – Carbon dioxide gas)

(……) (……) (……)



Question 5: Give reasons for the following:

A. The candle flame goes out when it is covered with a glass beaker

……

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B. When iodine solution is added to the bread, it does not turn blue

.....

C. We are advised to chew food well

.....

Question 6:

Oxygen gas enters through the nose during inhalation, then passes through ..... until it reaches the lungs, and from there to ....., which are surrounded by blood capillaries.The blood capillaries carry ..... gas to the body parts ,while they carry ..... gas to the lungs, where it leaves the body during the process of.....

Chapter 4: Blood Circulation and Excretion

[4- 2] How Do the Kidneys Work

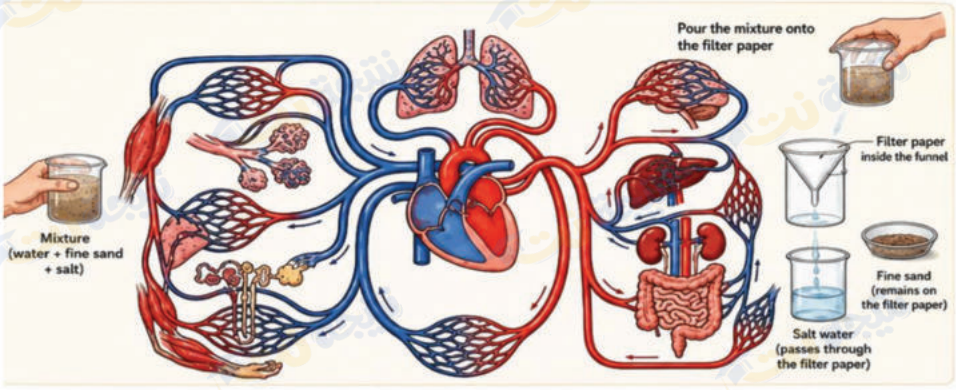
Week:.....

First: Class Performance – Kidney

Date :...../...../.....

Activity 1: Simulating Kidney Filtration of Blood

Look at the diagram showing a simulation of how the kidney works as a natural filter



Study the diagram carefully. After pouring the mixture (water, fine sand, and salt) into the filter paper, complete the following table:-

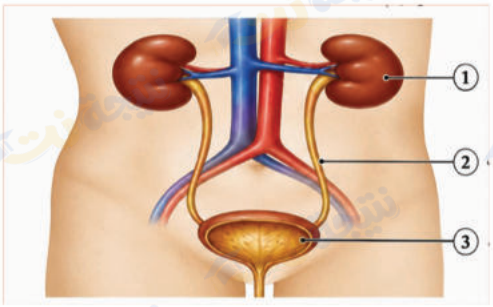
substance	Did it pass through the filter paper or not ?	What does it represent in the human body
Fine sand particles	.....	Blood cells and large protein.
Water and dissolved salt	Passed into transparent cup below.	.....

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Complete

The filter paper in this experiment performs the same function as (……) in the human excretory system.

Activity 2: From the Diagram, Explain:



Organ No. 1 is called ……, where the blood is filtered from …… and……

Organ No. 2 is called ……, where urine is transported from …… to ……, which is organ No. 3

Answer the following question :

1. How do the kidneys help clean the blood? What substances are removed from the blood in the urine?

……

2- How does the circulatory system work together with the respiratory system and the kidneys to remove wastes from the body? Give an example.

……

3-Imagine that a person has developed complete kidney failure.

What health effects might occur

……

4- Complete the following :

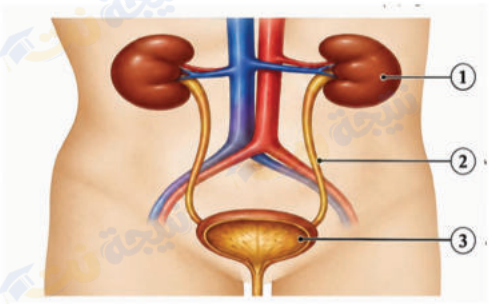
1- Liquid wastes are removed from the body through the ……

2- Give reason for : The body gets rid of carbon dioxide through the lungs, not the kidneys

……

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2- The kidneys filter the blood from.....



Chapter 4: Blood Circulation and Excretion

First class in performance

week:.....
Date: ...../...../.....

[4- 3] Various Organs

My Body Systems Work Together as a team

Ask your friend to take a deep breath and then run in place for 30 seconds:



What did you notice?

- The breathing rate increased:.....
- The heartbeat rate increased:.....

Complete the following:

- The lungs take in ..... from the air.
- The heart pumps.....carrying ..... to all parts of the body.
- Blood carries .....and .....to the muscles to help them move.

Explain:

How do the organs of the human body help each other perform their functions.

.....

What happens if the lungs stop taking in oxygen?

.....

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Second: Homework

1-Answer the following:

a. Why is the heart considered one of the most important organs of the circulatory system?

.....

b. Describe the pathway of blood in the circulatory system from the heart until it returns to the heart again.

.....

c. How do the kidneys clean the blood, and what substances are removed from the body in urine?

.....

2-Give reasons:

a. The returning blood flows from the lungs to the heart

.....

b. Why is the liver considered one of the most important organs of the body?

.....

3- How does the circulatory system work together with the respiratory system and the excretory system to remove waste products from the body? Give an example.

.....

4. What would happen if the kidneys did not filter waste products from the blood?

.....

Third: Weekly Assessment

Group (A)

1- Complete the following:

The effect of the heartbeat is transmitted through the blood vessels and can be felt as a pulse when touching the .....

2- Give a reason for the following:

The heart rate increases noticeably during exercise or running.

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3-Arrange the steps of urine formation and its removal from the body based on what you have learned:

(stored in the bladder – the kidneys filter the blood from waste products – leaves the body – urine is formed)

Step 1:.....

Step 2:.....

Step 3:.....

Step 4:.....

4- How the body organs (lungs – heart – small intestine – kidneys) work together to perform their functions and carry out their vital activities.

.....

5- Mention three examples of systems working together inside human body.

.....

Group (B)

(1) Complete the following:

The liquid that the kidneys produce to get rid of feces and excess water.....

(2) Give a reason for the following:

The chest moves upward and downward during breathing.

.....

3- Arrange the following steps that describe how blood functions in the body:

( )Return of blood to the heart.

( )Transport of nutrients absorbed from the small intestine.

( )Transport of oxygen from the lungs to the blood.

( )The heart pumps blood carrying oxygen and nutrients to all body organs.

4-What is the similarity between the liver and the kidneys in the human body in terms of the function they provide to protect the body?

.....

5- What is the importance of the bladder to the body?

.....

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Group (C)

1-Complete:

The urine produced by the kidneys is temporarily stored in a muscular sac called .....

2-Give a reason for the following:

Blood vessels are considered the basis for the coordinated functioning of all body organs.

.....

3- Arrange the following steps that describe the waste-removal process in the body:

( )Clean blood flows from the kidneys to the heart.

( )Waste products are transported to the kidneys.

( )Urine is stored in the urinary bladder.

( )Waste products are filtered inside the kidneys.

4-Briefly explain the role of the circulatory and respiratory systems in removing carbon dioxide from the body.

.....

5- Give three examples of how body systems work together.

.....

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Chapter 5:Photosynthesis

First: Class Performance: How Plants Grow in a Home Garden?

[5- 1] Sunlight and Starch:

Week.....

Date: ..../ ...../.....



You have two plants; one is exposed to sunlight regularly and the other is placed in a dark place.

1. Complete the following:

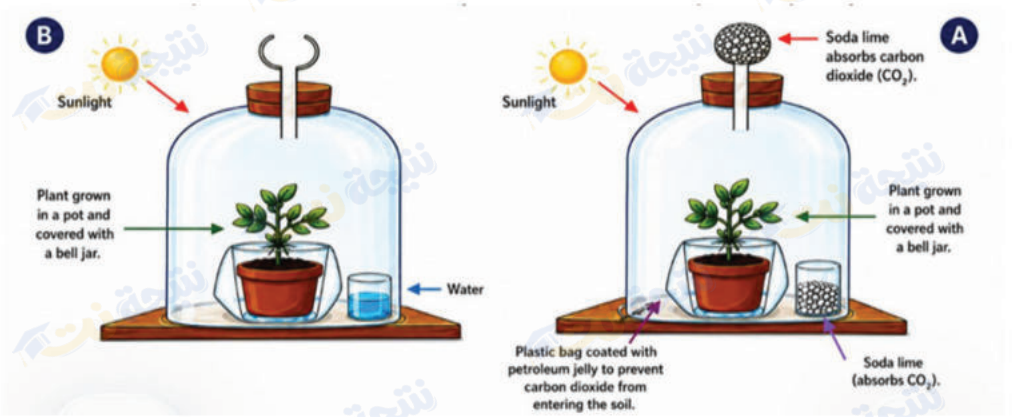
a.The plant in a dark place does not make ....., so it is weak and does not grow.

b.The plant exposed to sunlight regularly makes ....., so it grows normally.

[5- 2] Gas Exchange

Activity 1:

Date: ..../ ...../.....



1. Answer: Over time, what happens to both plants?

2. State the name of the gas:

..... gas is necessary to complete photosynthesis so the plant can make its food.

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Second: Homework Performance

1. Complete the following statements:

a. The plant uses sunlight to perform the ..... process.
b. The plant stores part of the food it makes in the form of ..... .
c. The color of iodine solution turns into ..... in the presence of starch.
d. In the presence of sunlight, plants absorb ..... gas and release ..... gas.

2. Give reasons for:

a. Covering part of the plant leaf with aluminum foil before the experiment.

.....

b. Using ethanol in the starch testing experiment.

.....

c. Reason for using iodine solution in the experiment of detecion of starch.

.....

d. Why does the plant leaf color turn to dark blue after adding iodine?

.....

e. Plants continue respiration during the day.

.....

3. Answer the following questions:

a. What is the importance of sunlight to plants?

.....

b. What happens if a plant is deprived of sunlight for several days?

.....

c. What is the relationship between the presence of starch in plant leaves and the occurrence of photosynthesis?

.....

d. Determine the reason for the increase in the percentage of oxygen gas inside the bag after exposing the plant to sunlight.

.....

e. Why does the percentage of carbon dioxide gas inside the bag decrease in sunlight?

.....

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Third: Weekly Assessment

Group (A)

1. Compare between:

The plant leaf exposed to sunlight and a plant leaf covered with aluminum foil after adding iodine solution

.....

2. Classify the following processes into photosynthesis or respiration:

(a) Releasing oxygen .....

(b) Absorbing carbon dioxide .....

(c) Food production .....

(d) Starch formation .....

3. Put (✓) for correct statements and (✗) for incorrect statements:

a.Plants produce their food through the photosynthesis process. ( )

b.Sunlight is necessary for starch formation in leaves. ( )

c.Iodine solution turns dark blue in the presence of starch. ( )

Group (B)

1. Compare:

plants during the daytime and plants at night in terms of gas exchange.

2. Classify the following substances into substances plants need for photosynthesis and substances plants produce:

(Oxygen - Carbon dioxide - Sugar - Starch)

Substances needed for photosynthesis: .....

Substances produced by the plant: .....

3. Put (✓) for correct statements and (✗) for incorrect statements:

a.Plants absorb oxygen gas and release carbon dioxide gas during photosynthesis. ( )

b.Plants absorb carbon dioxide gas and release oxygen gas in the presence of sunlight. ( )

c.Plants respire day and night. ( )

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Group (C)

1. Arrange the steps to test for starch in a leaf:

( ) Adding iodine solution.

( ) Washing the leaf with warm water.

( ) Placing the leaf in warm ethanol.

( ) Placing the leaf in hot water.

2. Compare photosynthesis and respiration in terms of when each occurs.

.....

.....

3. Put (✓) for correct statements and (✗) for incorrect statements:

a.A leaf not exposed to sunlight can form starch normally. ( )

b.Ethanol is used to remove the green color (chlorophyll) from the leaf before adding iodine solution. ( )

c.A plant leaf containing starch remains brown after adding iodine solution. ( )

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Chapter 6:Transportation of Water in Plants

Week .....

Date: ...../..... /.....

First: Class Performance: Water Leaves Plants as Water Vapor

[6- 1] Transpiration



Activity 1: The figure in front of you show a potted plant exposed to certain conditions. Study the image carefully, then answer the following questions:

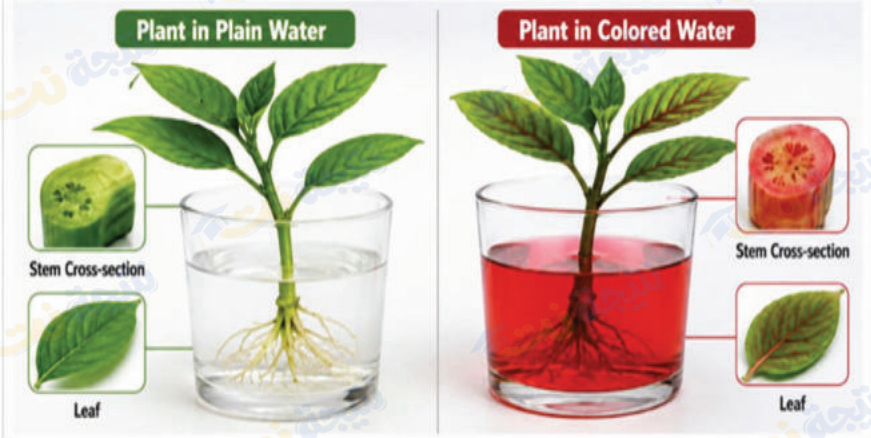
1. What do you observe on the inside of the plastic bag?

.....

2. Plants get rid of excess water through small pores on the leaves called ..... via a process called ..... .

[6- 2] Path of Water

Activity 2: Your classmate placed a red dye in a container with a growing potted plant, as shown in the figure. Study the figure carefully, then answer:



1. Complete the statements:

1. The first plant parts to be colored red are the ..... .

2. The path of water transport from soil is to ..... then to ..... till ..... through the wood vessels.

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Second: Homework Performance

1. Complete the statements:

a. The process of water vapor exit from plant leaves is called ..... .

b. Transpiration mainly occurs through ..... located on ..... leaves.

c. Water inside the plant moves from ..... to..... and ..... .

d. Water droplets form inside the plastic bag as a result of .....

2. Give reasons for:

a. A wilted plant recovers after watering.

.....

b. Using colored water in the water path experiment.

.....

c. Stomata are mostly located on the lower surface of leaves.

.....

3. What happens if...?

a. All plant leaves are removed and then covered with a plastic bag?

.....

b. A plant does not receive an adequate amount of water?

.....

c. Plant roots are placed in colored water for several hours?

.....

d. Stomata on plant leaves become blocked?

.....

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Third: Weekly Assessment

Group (A)

1. Choose the correct answer: The part responsible for water absorption is:.....

(a) Leaves (b) Stem (c) Roots (d) Flowers

2. Two students placed two identical plants in plastic bags (one with leaves removed). Water droplets appeared in only one bag. Explain why?

.....

3. Compare between :

a- A plant in the garden and another covered with a black plastic bag in terms of growth and leaf freshness.

.....

4. Identify statements related to transpiration:

a. Water vapor exit

b. Water movement to all plant parts

c. Formation of water droplets inside the bag

d. Water absorption from soil

Group (B)

1. Choose the correct answer: Water and mineral salts are absorbed by:

(a) Leaves (b) Flowers (c) Roots (d) Fruits

2. A student observed that the stem and leaves turned red after placing the plant in red water. What does this indicate?

.....

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3.Select which plant parts absorb water from soil: (Leaves - Stem - Roots - Flowers).

.....

4. Compare between:

Photosynthesis and respiration in terms of products.

.....

Group (C)

1. Choose the correct answer: Water and salts are transported by the stem from:

(a) Leaves to roots (b) Roots to leaves

(c) Flowers to leaves (d) Stems to roots

2. Order the steps for the transpiration experiment (1 to 4):

( ) Place a plastic bag around the plant.

( ) Expose the plant to sunlight.

( ) Observe water droplets inside the bag.

( ) Tie the bag tightly.

3. A plant inside the classroom wilted, then recovered after watering. How do you explain this?

.....

4. Compare transpiration and water transport inside the plant.

.....

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Chapter 7: Food Chain

[7- 1] Food Chain

Week .....

First: Class Performance: Food Chain

Date: ...../..... /.....

Activity 1: In light of the image before you, answer the following:



1. The food chain starts with a ....., which is an organism that makes its own food.
2. An herbivore (herbivorous animal) is ..... .
3. A carnivore (carnivorous animal) is ..... .
4. The direction of the arrow indicates the direction of ..... .

Activity 2: Write next to the following living organisms (Herbivore - Producer / Makes its own food - Carnivore):

Grass: .....
Rabbit: .....
Fox: .....

Activity 3:

1. Construct a food chain from the following organisms: (Snake - Grass - Owl - Rabbit):

.....

2. Indicate the direction in which energy flows in the food chain.
3. Classify these organisms in the table:

Makes its own food (plant)	Herbivore	Carnivore

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Chapter (7) : Food Chain

First classroom performance

Second: Homework Performance

1. Complete the following statements:

a.The food chain starts with a ....., which is an organism that makes its own food.

b.The main source of energy in most food chains is ..... .

c.Organisms that feed on plants are called ..... .

d.The direction of the arrow in a food chain determines the direction of ..... .

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2. Give reasons for:

a. Plants are considered essential in food chains.

.....

b. Rabbits are considered herbivorous (consumer) organisms in the food chain.

.....

c. Most food chains start with green plants.

.....

3. What happens if...?

a.Plants disappeared from an ecosystem›s food chain?... .....

.....

b.Sunlight was absent from an ecosystem containing multiple food chains?

.....

c.Herbivorous organisms (like rabbits) disappeared from the food chain?

.....

d. The food chain was interrupted and energy was not transferred from plants to consumers?

.....

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Third: Weekly Assessment

Group (A)

1. Choose the correct answer:

The feeding relationship between living organisms (eater-and-eaten) is called:

(a) Aquatic web (b) Food chain

(c) Rock cycle (d) Atmosphere

2. Compare between:

A. Plants and herbivores in terms of: (Food - Position in the food chain).

In terms of	Plants	Herbivores
Food		
Position in the food chain		

B. Carnivores and herbivores in terms of: (Concept - Example for each).

In terms of	Herbivores	Carnivores
Concept		
Example		

3. Arrange the following organisms to form a correct food chain showing the direction of energy flow: (Snake - Grass - Owl - Frog - Grasshopper).

.....

Group (B)

1. Choose the correct answer:

Which of the following organisms uses sunlight to produce its food and represents the beginning of a food chain?

(a) Snakes (b) Grasshoppers

(c) Plants (d) Falcons

2. Compare between:

A. Grasshoppers and snakes in terms of: (Classification in the food chain - Type of food).

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In terms of	Grasshoppers	snakes
Classification in the food chain		
Type of food		

B. Rabbits and lions in terms of: (Type of food each feeds on).

The rabbits eats .....

The lions eats .....

3. Arrange the components of the following food chain according to the energy flow path:

(Carnivore - Plant utilizing sunlight - Herbivore).

.....

Group (C)

1. Choose the correct answer:

In a food chain, the arrow points to:

(a) Direction of air movement.

(b) Direction in which energy is transferred.

(c) Increase in organism size.

(d) Increase in food amount.

2. Compare between:

A. Falcons and rabbits in terms of: (Classification in the food chain - Method of obtaining food).

In terms of	Falcon	Rabbit
Classification in the food chain		
Method of obtaining food		

B. An example of predator and prey in a food chain.

In terms of	predator	prey
An example		

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3. Arrange the following:

organisms starting from the organism that represents the beginning of the food chain up to the top carnivore:

(Eagle - Rabbit - Grass - Snake).

.....

Monthly Practice Test (2)

Question 1:

First: Choose the correct answer:

1. An organism that produces its own food is called:

(a) Lion. (b Mouse . (c) Plant. (d) Cat.

2. Energy is transferred in a food chain from:

(a) Consumer (herbivore) to plant.

(b) Plant to consumer (herbivore).

(c) Consumer (carnivore) to plant.

(d) Consumer (predator) to consumer (herbivore).

3. Plants produce their food through a process called .....

(a) Respiration. (b) Excretion. (c) Photosynthesis. (d) Combustion.

4. Plants absorb water and mineral salts from the soil through:

(a) Flowers. (b) Roots. (c) Leaves. (d) Fruits

Second: From the image in front of you, answer:



A. Which organisms are herbivores?

.....

B. Form a food chain from this image.

.....

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Question 2: Put (✓) for correct statements and (✗) for incorrect statements:

1. Most food chains start with green plants. ( )
2. Energy is transferred from one organism to another until the end of the food chain. ( )
3. The amount of energy decreases as it transfers between levels of the food chain. ( )
4. Plants need sunlight to make their food. ( )
5. Roots absorb water and salts from the soil and transport them to the stem. ( )

Question 3: Complete the following statements:

1. Plants perform ..... to make starch and release ..... gas needed for respiration.
2. ..... gas enters during the photosynthesis process.
3. Water moves inside plants through ..... .
4. If a plant is deprived of ....., it cannot make its food.
5. The main source of energy in most food chains is ..... .
6. Organisms that feed on plants are called ..... .

Question 4: First: Arrange the following stages:

a. Water transport in a plant: (Leaves - Roots - Stem)

.....

b. Arrange the components of the following food chain showing the energy flow path:(Snake - Green Plant - Falcon - Mouse)

.....

Second: Compare between:

1. Both surfaces of the plant leaf in terms of the number of stomata.

.....

2. Photosynthesis process and respiration process in terms of conditions for each process.

.....

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Question 5:

First what happens if:

1. The plant is not exposed to sunlight daily: .....
2. Plants disappeared from an ecosystem, what happens to the food chain?

.....

Second: Give reasons for (Explain):

1. Plants are considered essential in food chains. .....
2. Tiny pores exist on the leaf surface called stomata. .....
3. Increasing the planting of trees in streets. .....
4. Gas exchange occurs in plants. .....

[7- 2] Living Organisms, Air, and Wate

Observe the figure. Date:...../...../.....

All living organisms interact in the environment, and this interaction is evident in the figure.



First: Complete the following statements:

1. Air contains ....., which is used by ..... and ..... for respiration.
2. ..... produce their own food and It depends on....., which is produced by the respiration of.....
3. Water vapor rises into the atmosphere, forming ....., and then falls as rain.
4. All living organisms in nature depend on ..... and …… to live and grow.
5. The ..... cycle in nature through nature and sustains life on Earth.

Second: What would happen if:

1. Plants completely stopped transpiring?

.....

2. Plants disappeared and no longer released oxygen into the air?

.....

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Chapter 8: Food Chains in Egypt

Week .....

Date:...../..../.....

[8- 1] Food Chains in the Desert and the River Nile

First: Class Performance

To discover feeding relationships in the Egyptian environment.

Activity 1: Show Energy Transfer Path:

From the cards in front of you, complete the blanks: (Producer - Herbivorous Consumer - Carnivorous Consumer)



Producer ....

organism

What happens if locusts disappeared from the desert?

.....

The arrow represents .....

Activity 2: Form several food chains from the following images showing the direction of energy flow:



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Second: Homework Performance

1- Complete the following statements:

a. The path of energy transfer in a food chain starts from ..... to living organisms.

b. Plants make their food during ……..... process.

c. Animals that eat plants are called ..... animals.

2- Give reasons for:

a. Food chains start with plants.

.....

b. Animals need plants directly or indirectly.

.....

c. The disappearance of an organism from the food chain leads to an ecosystem imbalance.

.....

3- What happens if...?

a. All plants in the desert died?

……

b. The number of snakes increased significantly?

.....

4- Answer the following questions:

a. Why does a food chain not start with a fox? .....

b. How do plants help in the continuation of life? .....

c. Why do plants abound around rivers? .....

d. How does water scarcity affect food chains?

……

e. Why do food chains in the Nile differ from those in the desert?

……

f- Form a food chain consisting of 3 organisms living in Egypt, and identify:

Plant……

Herbivorous organism:……

Carnivorous organism:……

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Third: Weekly Assessment

Group (A)

1- Complete:

A. Most food chains start with ..... .

B. The organism that makes its food by itself in the food chain is .....

C. In the following food chain:

Plant ⟶ Locust ⟶ Frog ⟶ Snake

The frog is considered ..... .

2- Put (✓) for correct statements and (✗) for incorrect statements:

A. The food chain always starts with a carnivorous animal. ( )

B. Energy transfers between organisms in the food chain. ( )

C. A rabbit can be at the beginning of a food chain. ( )

4- Give reasons for:

- Carnivorous animals cannot survive if plants disappear.

.....

5- Compare between:

A producer organism and a predator.

.....

Group (B)

1- Answer the following:

A. Show the direction of the energy path arrow between a bird and wheat grains: .....

B. What is the organism that makes its food by itself in the food chain?

.....

2- Complete the following:

a. The ..... in food chains represents the direction of energy transfer.

b. Energy transfer in most food chains starts from ..... .

c. A ..... is considered a herbivorous organism.

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3- Compare between:

A mouse and a fox in terms of the type of living organism in the food chain .....

.....

4- Put (✓) for correct statements and (✗) for incorrect statements:

a. Snakes in the chain (Plant -Mouse - Snake) are considered herbivorous organisms. ( )

b. Energy transfers from plants to herbivorous organisms like rabbits.( )

c. The disappearance of plants does not affect carnivorous animals.( )

Group (C)

1- Make a food chain from the following living organisms :

(a) Snake - Grass - Locust - Frog: .....

(b) Fox - Plants - Rabbit - Falcon: .....

(c) Algae - Crocodile - Small Fish - Big Fish: .....

.....

2- Give reasons for:

- The presence of plants is necessary for the continuation of the food chain: .....

3- Complete:

1- Form a food chain:

2- Energy transfers in the food chain from ..... to .....

..... ⟶ ..... ⟶ Frog ⟶ Snake.

4- Put (✓) for correct statements and (✗) for incorrect statements:

a. Animals are all food producers. ( )

b. Energy transfers from one living organism to another through food.( )

c. A rabbit is an herbivorous animal because it feeds on plants. ( )

d. Arrows in a food chain point to the direction of energy transfer. ( )

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Chapter 9:Properties of Solutions

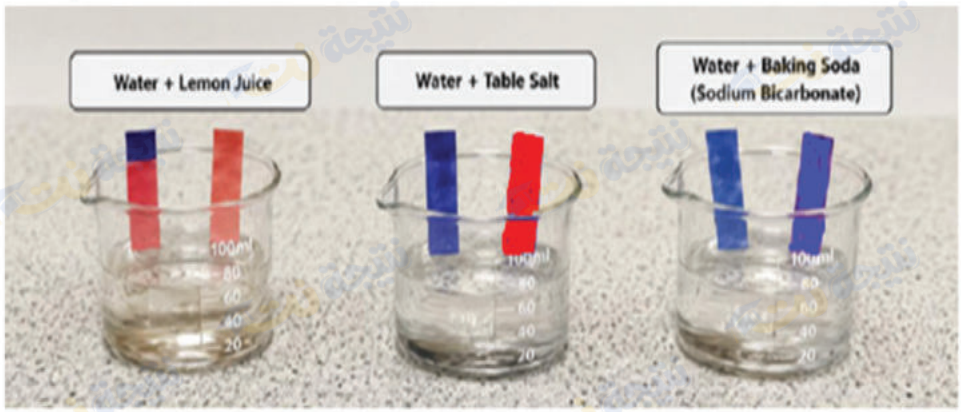
Week (.....)

Date:..... /..... /.....

[9- 1] Solution Classification

First: Class Performance: Let's Discover Solution

Activity 1:



Complete the table:

Solution	Its Effect on Litmus Paper	Type of Solution (Acidic - alkaline - Neutral)
Water + Baking powder (Sodium bicarbonate)	Turns ..... litmus paper to	.....
Water + Table salt	Does not change the color of both litmus papers	.....
Water + Lemon	Turns blue litmus paper to red	(acidic solution)

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[9- 2] What Dissolves in Solutions?

Activity 2: Using water, salt, a dish, and a burner.



Through the activity, what do you observe after evaporating the solution?

.....

Activity 3: Evaporating Effervescent Water:



From the shown figure, what happens after evaporating effervescent water?

.....

What is the type of substance that was dissolved? .....

.....

4- Complete the following table:

Sample Name	Solid substance remains after evaporation (Yes / No)
Hydrochloric acid	
Table salt solution	
Lemon solution	
Vinegar	
Effervescent water	

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Second: Homework Performance

1- Complete the following sentences:

a. We can identify the dissolved substance in a solution through ……..... the solution.

b. Upon water evaporation, ... dissolved substances remain in water.

c. Examples of solid substances dissolved in water include .....and ..... .

d. Upon evaporating effervescent water, no solid ..... .

e. Examples of acidic solutions include ..... and .....

2- Compare between:

Table salt solution and hydrochloric acid solution in terms of your observation of what happens after solution evaporation:

……

3- Answer the following

a. How can you determine the state of the dissolved substance in an unknown solution using evaporation?

……

b. Why should vapors not be inhaled directly during the experiment?

……

c. If blue litmus paper turned red, what do you conclude about the solution?

.....

d. If the color of both litmus papers did not change, what type of solution is it?

.....

Life applications:

- State an example of an acidic solution from home.

……

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Third: Weekly Assessment

Group (A)

1- Put (✓) for correct statements and (✗) for incorrect statements:

A. After evaporating a sugar solution, no solid substance remains.( )

B. A neutral solution changes the color of both litmus papers. ( )

2- Complete:

a.When heating a solution, we use ..... .

b.When a small amount of liquid remains, we turn off ..... and leave residual heat to evaporate the liquid.

c.When smelling vapors, do not bring your face close, but use ..... to direct the scent towards the nose.

d.Examples solutions include ..... .

3- Answer the following questions:

a.State an example of an alkaline solution: .....

b.Where is the evaporation process used in practical life? .....
.....

c.What is meant by a solution

d. Explain how a solution is formed

e.What is the difference between soap solution and lemon solution in terms of effect on litmus paper? .....
.....

Group (B)

1- Give reasons for:

a.Salt cannot be seen after dissolving in water with the naked eye. .....
.....

b.Dissolution speed increases with stirring. .....
.....

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2- Complete:

a.Examples of neutral solutions include ..... .

b.Examples of alkaline solutions include …… and ……..... .

c.When changing a solution, the ..... must be washed well with water.

3- What happens if...?

a. You placed two litmus papers in a vinegar solution? .....

.....

b. You left a salt solution until water evaporated?

……

4- Answer: You have 2 cups

(Cup 1: Vinegar, Cup 2: Salt solution).

How do you distinguish between them? ……

……

Group (C)

1.Compare between:

dissolved gases in a solution and dissolved solid substances after solution evaporation.

……

2- Put (✓) for correct statements and (✗) for incorrect statements, with correcting the wrong statement:

A. Salt can be separated from water by evaporation. ( )

B. Soap solution is an alkaline solution. ( )

3- Complete:

1- Effervescent water contains dissolved ..... gas.

2- Blue litmus paper turns ..... in acidic solutions.

3- The color of litmus papers does not changes in .....solutions.

4- Red litmus paper turns ..... in alkaline solutions.

4- Think and answer:

1- If red litmus paper turned blue, what is the type of solution?

.....

2- Why must glass rods be washed thoroughly when moving from one solution to another?

.....

3- What is the benefit of using litmus paper in the laboratory?

.....

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Chapter 10: Reaction of Solutions with Metals

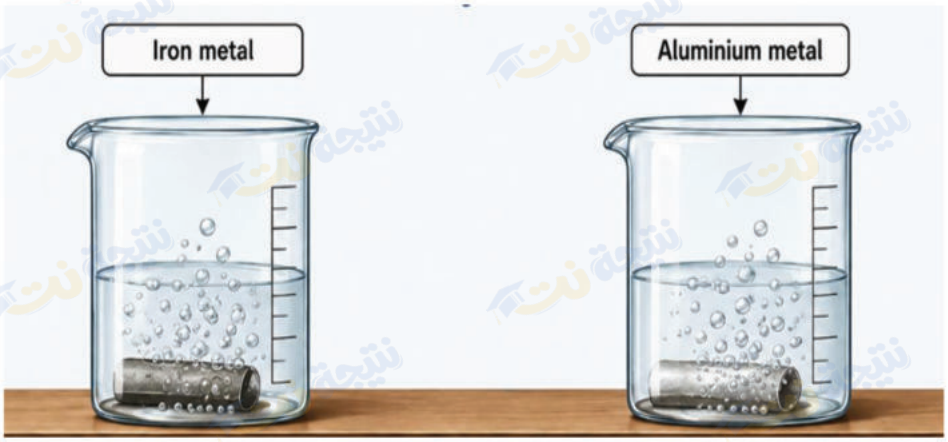
Week .....

Date:...../ ...../.....

First: Class Performance: Study the Reaction

[10- 1] Aqueous Solutions and Metals

Activity: Reaction of some metals with an acidic solution



When pouring dilute hydrochloric acid onto aluminum or iron metal, they ..... . Some metals react with ..... until they completely disappear due to the formation of ....., and gas bubbles evolve.

Second: Homework Performance

1- Complete the following statements:

a.Some aqueous solutions has properties that enable them to dissolve some ..... .

b.Hydrochloric acid has properties that dissolve metals such as ..... and ..... .

c.When pouring dilute hydrochloric acid onto aluminum or iron, these metals dissolve and produce ..... .

d.Metals are shiny materials, and most of them exist in a ..... state.

2- Give reasons for:

a.Gas bubbles appear when pouring dilute hydrochloric acid onto a metal like aluminum or iron.

.....

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b.Using metals like iron, aluminum, and gold heavily in our daily life.

.....

c.Dissolution of aluminum and iron metal upon adding dilute hydrochloric acid to them.

....

Third: Weekly Assessment

Group (A)

1- Put (✓) for correct statements and (✗) for incorrect statements:

a.Aluminum and iron dissolve in dilute hydrochloric acid. ( )

b.Safety goggles must be worn during the experiment. ( )

2- Give reasons for:

a.Some metals like aluminum and iron dissolve in dilute hydrochloric acid.

.....

b.Gas bubbles evolve during the reaction of aluminum or iron with dilute hydrochloric acid.

.....

3- Compare between: Changes in aluminum in water and aluminum in acid:

.....

4- Complete the following:

Upon reaction of acid with some metals, ... appears.

Group (B)

1-Give reasons for:

a. Do not touch hot tools directly after heating.

.....

b. No noticeable reaction occurs when putting aluminium or iron in water.

2-Complete:

Upon reaction of metal with dilute hydrochloric acid, ... gas evolves.

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3-Answer:

What is evidence of a chemical reaction occurring? ……
……

Group (C)

1- Put (✓) for correct statements and (✗) for incorrect statements:

a.Safety rules must be followed when performing practical experiments. ( )

b.Dilute hydrochloric acid does not react with active metals. ( )

2- Give reasons for:

a.A new solution is formed after the reaction of acid with metal.

…… .....

b.Bubbles appear during the reaction.

…….....

c.Reaction speed differs from one metal to another.

…….. .....

3- Answer the following:

- How do you practically distinguish between table salt solution and acid solution?

…….....

4- What happens if:

- You placed an iron nail in an acid solution?

……

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Chapter 10: Reaction of Solutions with Metals

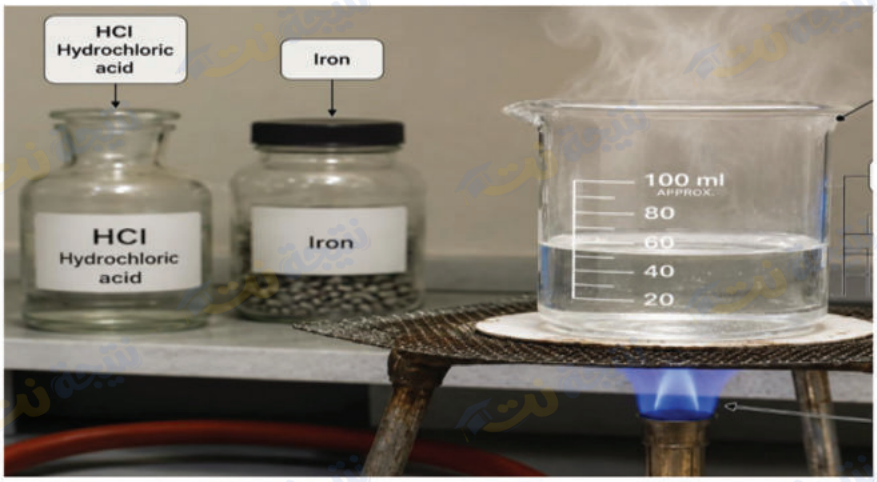
Week .....
Date:..../..../.....

First: Class Performance: Observe the Reaction

[10- 2] What Is Left After Evaporation

Activity: Evaporation of the solution resulting from the reaction of metal in acid:

The figure before you illustrate the evaporation of the solution formed from the reaction of iron with dilute hydrochloric acid.



- What remains after evaporating the solution? .....

- What happens upon adding acid to the substance that remained in the beaker? .....

Second: Homework Performance

1- Complete the following statements:

a.Upon evaporating the liquid resulting from dissolving aluminum in dilute hydrochloric acid, a solid substance appears, its color is ..... .

b.The remaining solid substance differs from the original metal in appearance, as it is non-..... .

c.When metal dissolves in an aqueous solution, it turns into another new substance with completely ..... properties.

d.Upon placing the white solid substance in dilute hydrochloric acid, no ..... are formed as happened with the original metal.

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2- Give reasons for:

a.The appearance of the white solid substance differs from the appearance of the original aluminum metal. .....

b.No gas bubbles are formed upon placing the remaining solid substance in dilute hydrochloric acid again. .....

c.Dissolving aluminum in dilute hydrochloric acid is considered a chemical change (forming a new substance). .....

Third: Weekly Assessment

Group (A)

1- Put (✓) for correct statements and (✗) for incorrect statements:

a. Upon re-placing the solid substance resulting from metal dissolution in hydrochloric acid, no gas bubbles are formed. ( )

b. The difference in properties of the remaining substance indicates the formation of a new substance. ( )

2- What happens if:

Placing a strip of aluminum in dilute hydrochloric acid? .....
.....

3- Answer:

What is your evidence of the appearance of a new substance after adding acid to some metals?

.....

4- Complete the following:

a.We conclude after the reaction of some metals with acids that the metal has turned into ……..... with different properties.

b.Upon evaporating the solution resulting from the reaction, ... evaporates and solid substance remains.

Group (B)

1- Put (✓) for correct statements and (✗) for incorrect statements:

a.Gas evolves upon the reaction of some metals with dilute hydrochloric acid. ( )

b.The solid substance resulting after solution evaporation resembles the original metal in all its properties. ( )

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2- Give reasons for:

a.Properties of aluminum metal change upon adding dilute hydrochloric acid to it.

.....

b. The remaining solid substance after solution evaporation does not react again with hydrochloric acid.

.....

3- Complete the following:

a. ..... possesses properties that enable it to change the properties of some metals.

b.Dissolving aluminum in hydrochloric acid results in a solid substance, colored ..... after evaporating the solution.

4- What happens if:

Water from the solution resulting from the reaction evaporated?

.....

Has a new substance been formed? What is your evidence?

.....

Group (C)

1- Put (✓) for correct statements and (×) for incorrect statements:

A. No gas is produced during the reaction of metals with acids. ( )

B. Evolving bubbles are evidence of gas formation. ( )

2- Complete the following:

a. Metal reaction with acid results in ..... .

b. The resulting solid substance differs from the original metal in ..... .

c. Upon re-placing the substance resulting in dilute hydrochloric acid, it does not ..... and no gas bubbles evolve.

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3- Give reasons for:

Bubbles appear during the reaction.

.....

Monthly Test (3)

Question One:

1-Answer the following:

A. What happens to a piece of metal (aluminum) if you pour dilute hydrochloric acid on it? .....
.....

B. Can the metal be recovered again by evaporation? And why? .....
.....

2- Choose the correct answer:

1- Upon evaporating saltwater, what remains is
.....

(a) Water. (b) Salt. (c) Carbon dioxide. (d) Nothing.

2- The solution that turns red litmus paper to blue is a ..... solution.

(a) Acidic. (b) Neutral. (c) Alkaline. (d) Salty.

3- The beginning of any food chain is.....

(a) Carnivorous animals. (b) Plants. (c) Humans. (d) Decomposers.

4- Upon placing iron in water.....

(a) Gas evolves. (b) Fast reaction occurs.

(c) No noticeable reaction occurs. (d) It dissolves.

Question Two: Put (✓) for correct statements and (✗) for incorrect statements:

a. Solution components can be seen with the naked eye. ( )

b. Blue litmus paper color turns to red in an acidic solution. ( )

c. Iron reacts with water forming gas bubbles. ( )

d. Salts remain in the evaporating dish after solution evaporation. ( )

e. Carnivorous animals feed on plants directly. ( )

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f. The substance resulting from the reaction of metal with hydrochloric acid has the same properties as the original metal. ( )

g. All metals react at the same speed with acids. ( )

Question Three: Complete the following statements:

a. ……..... gas evolves during the reaction of metals with dilute hydrochloric acid.

b. Upon evaporating effervescent water, nothing ..... remains.

c. A neutral solution ..... the color of two litmus papers.

d. A food chain always starts with ..... .

e. Upon evaporating a salty solution, a solid substance remains, which is ..... .

f. Among common metals that react with acids are ..... and ..... .

Question Four: Give reasons for:

a. Caution must be taken when performing experiments of some metals with acids? .....
.....

b. Aluminum cannot be recovered by evaporation after reacting with acid? .....

c. Aluminum reacts with hydrochloric acid faster than iron?
.....

d. Nothing remains after evaporating effervescent water?
.....

e. The color of both litmus papers does not change in a neutral solution?
.....

f. No noticeable reaction occurs when adding water to iron or aluminum?
.....

g. Food chain starts with plants?
.....

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Question Five: Compare between each of:

A. Alkaline solution and acidic solution (in terms of: effect on litmus paper).

Point of comparison	Alkaline solution	Acidic solution
Effect on litmus paper		

B. Effect of water and hydrochloric acid on aluminum metal (in terms of:

appearance of gas bubbles - change of metal properties).

Point of comparison	Effect of hydrochloric acid on metal	Effect of water on metal
Appearance of gas bubbles		
Change of metal properties		

Question Six: Form a food chain in the Egyptian desert environment, then form another chain in the River Nile

.....

.....

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