

تم تحميل هذا الملف من موقع المناهج الإماراتية



حل مراجعة صفحات الكتاب وفق الهيكل الوزاري منهج انسابير المسار العام

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تاريخ إضافة الملف على موقع المناهج: 14:54:50 2024-06-07

إعداد: Ram Raja Anitha

التواصل الاجتماعي بحسب الصف الخامس



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المزيد من الملفات بحسب الصف الخامس والمادة علوم في الفصل الثالث

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1

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المزيد من الملفات بحسب الصف الخامس والمادة علوم في الفصل الثالث

| | |
|--|---|
| حل النموذج التدريبي لامتحان النهائي منهج بريدج | 4 |
| النموذج التدريبي لامتحان النهائي منهج بريدج | 5 |

EOT – TERM 3 – Revision

MCQ & FRQ

Inspire Science

Grade – 5

General Stream

Prepared by
Anitha Raja Ram
Al Muraijib Science Department

EOT – TERM 3 – Revision

| | |
|--|-----------|
| Number of MCQ عدد الأسئلة الموضوعية | 15 |
| Marks of MCQ درجة الأسئلة الموضوعية | 60 |
| Number of FRQ عدد الأسئلة المقالية | 5 |
| Marks per FRQ الدرجات للأسئلة المقالية | 40 |

| | |
|---|--------------------|
| Exam Duration - مدة الامتحان | 150 minutes |
| Mode of Implementation - طريقة التطبيق | Paper-Based |
| Calculator | Not Allowed |
| الآلة الحاسبة | غير مسموحة |

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

| | | | |
|----|--|----------------|----------------|
| 1 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | Figure page 10 | U2M1L1 page 10 |
| 2 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | Figure page 10 | U2M1L1 page 10 |
| 3 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | | U2M1L1 page 11 |
| 4 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | Figure page 15 | U2M1L1 page 15 |
| 5 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | | U2M1L1 page 11 |
| 14 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | | U2M1L1 page 11 |
| 15 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | | U2M1L1 page 10 |
| 16 | 5-LS1-1 Students will support an argument that most of the mass of a plant is obtained from water and air and not from soil. | Figure page 9 | U2M1L1 page 9 |

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

.....make their own food using energy from the Sun.

- A plants
- B consumers
- C decomposers
- D fungi

14) Plants cannot grow too close together because their ____ need to spread out and absorb nutrients from the soil.

- A stems
- B roots
- C petals
- D xylems

15) ____ is the evaporation of water from a plant's leaves.

- A Transpiration
- B Storage
- C Water absorption
- D Nutrient evaporation

17) Which of the following materials used by plants to make food can be found in the air?

- A pollen
- B soil
- C oxygen
- D carbon dioxide

Which of these items does a plant need to make their own food?

- A water and soil
- B water and carbon dioxide
- C water and sunlight
- D soil and carbon dioxide

13) Plants produce their own _____.

- A bacteria
- B nitrogen
- C food
- D root

Where does the energy that plants use to make their own food come from?

- A soil
- B Sun
- C water
- D carbon dioxide

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

15) Where do plants get the carbon dioxide they need to survive?

- from the ground
- from the air
- from water
- from other plants

2) Fill in the blanks using the available answer choices.

Plants use water, _____, and light energy to produce sugar and

(Blank 1)

_____.

(Blank 2)

Blank 1 options

- carbon dioxide
- oxygen

Blank 2 options

- carbon dioxide
- oxygen

Correct Answer

carbon dioxide
oxygen

3) Which of the following are located on a plant's leaves?

- stomata
- xylem
- phloem
- roots

4) The main job of the _____ is to take in nutrients and water from the soil.

- roots
- B** stems
- C** leaves
- D** stomata

Water is carried from the roots through the stem by tissues called..... .

- A** phloem
- xylem
- C** transpiration
- D** stomata

Phloem are tissues that transport to all parts of the plant.

- sugar
- B** water
- C** carbon dioxide
- D** oxygen

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

A scientist grew several plants in separate pots. They changed the amount of soil in each pot. The amount of light, water, and air was the same. They recorded the height of each plant.

They made the argument that plants get their materials for growth from the air and water.

| Pot # | Mass of Soil (g) | Height of Plant (cm) |
|-------|------------------|----------------------|
| 1 | 25 | 14 |
| 2 | 35 | 31 |
| 3 | 45 | 9 |
| 4 | 55 | 15 |

What evidence supports this claim?

- (A) The height of each plant was very different.
- (B) The plant with the largest amount of soil grew the tallest.
- (C) The plant that grew the tallest had less soil than two other pots.
- (D) The pot with the least amount of soil was the shortest plant.

A student made the claim that plants need air and water to grow. They conducted an experiment to test this claim. Their results are in the table.

| Plant # | Height with Air & Water (cm) | Height without Air & Water (cm) |
|---------|------------------------------|---------------------------------|
| 1 | 15 | 1 |
| 2 | 14 | 0 |
| 3 | 20 | 0 |
| 4 | 24 | 0 |

What data support the claim?

- (A) Little to no growth happened without air and water present.
- (B) The plants grew a total of 24 centimeters during the experiment.
- (C) Access to air and water produced plants that were more than 30 centimeters tall.
- (D) One plant was able to start growing without its needed materials.

Plants need energy to acquire the nutrients they need to survive. The different parts of a plant's structure work together to keep the plant healthy. Which two functions do the leaves of a plant serve in obtaining the nutrients needed for survival?

- (A) Leaves take in sunlight and oxygen.
- (B) Leaves take in water and give off oxygen.
- (C) Leaves take in sunlight and carbon dioxide.
- (D) Leaves take in water and give off carbon dioxide.

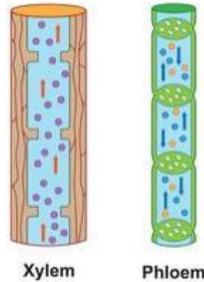
The parts of a plant all work together to provide the nutrients it needs to survive. Which of the following provides the function of transporting water to all parts of a plant?

- (A) xylem
- (B) transpiration
- (C) stomata
- (D) evaporation

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

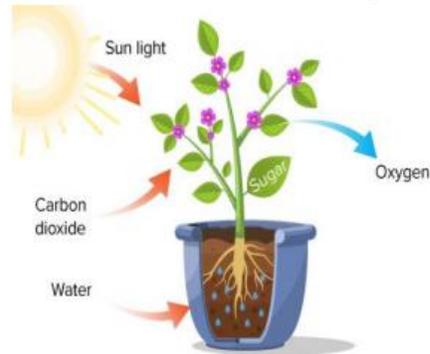
2) The adjacent figure shows xylem and phloem which of the following statements is correct?



- A. Phloem transports gases and xylem transports sugar to all parts of the plant
- B. Xylem transports sugar and phloem transports water to all parts of the plant
- C. Xylem transports water and phloem transports sugar to all parts of the plant.
- D. Phloem transports sugar and xylem transports gases to all parts of the plant

4) what are product of combining water and carbon dioxide in the plant leaves in presence of light energy?

- A. Oxygen and nitrogen
- B. Sugar and oxygen
- C. Nitrogen and oxygen
- D. Sugar and nitrogen



5) which of the following best defines tiny opening of underside the most leaves that allow air to enter?

- A. Stomata
- B. Xylem
- C. Roots
- D. Phloem

11) Which of following are considered basic need of the plants?

- A. Water and nitrogen
- B. Air and shelter
- C. Sugar and shelter
- D. Water, air and sunlight

15) which of the following considered a waste product produced by **all** living things?

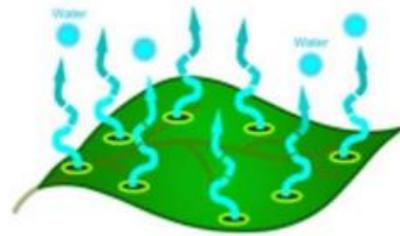
- A. Magnesium
- B. Sulfur
- C. Oxygen
- D. Carbon dioxide

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

16) which of the following best define of evaporation water from the plant's leaves ?

- A. Absorption
- B. Transportation
- C. Photosynth
- D. Transpiration



Ability to do work or change somethings.

- A. Energy
- B. Food
- C. Nutrient
- D. Air

Which is found inside the stem of a plant ?

- a. Epidermis
- b. Root hairs
- c. Xylem
- d. Leaves

Which part of the plant takes in carbon-di -oxide from the air ?

- a. Roots
- b. Leaves
- c. Stems
- d. Flowers

Choose the special tissue that carries water in a stem.

- a. Transpiration
- b. Stomata
- c. Phloem
- d. Xylem

What is the ability to perform work ?

- a. Energy
- b. Transpiration
- c. Absorption
- d. Growth

What is the evaporation of water from a plant's leaves ?

- a. Water absorption
- b. Nutrient evaporation
- c. Storage
- d. transpiration

Which is correct about how plants make food ?

- a. Water+ carbon di oxide combine with oxygen to make food
- b. Water+ carbon di oxide combine in sunlight to produce sugar and oxygen

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

Q3.

What is the main function of stomata in plants?



- | | |
|----------------------------------|------------------------------------|
| a. | To absorb nutrients from the soil. |
| b. | To store water for the plant. |
| <input checked="" type="radio"/> | To carry out the gas exchange |
| d. | Help the plant grow taller. |

5-woody vines can grow and climb high into the tree canopy to get

- A. Nutrient .
- B. Sunlight .
- C. Carbon dioxide .
- D. Sugar .



Q6.

Plants need energy to acquire the nutrients they need to survive. The different parts of a plant's structure work together to keep the plant healthy. Which two functions do the leaves of a plant serve in obtaining the nutrients needed for survival?



- | | |
|----------------------------------|---|
| a. | Leaves take in sunlight and oxygen. |
| b. | Leaves take in water and give off oxygen. |
| <input checked="" type="radio"/> | Leaves take in sunlight and carbon dioxide. |
| d. | Leaves take in water and give off carbon dioxide. |

6-any substance that living things need to live, grow and stay healthy.

- A. Carbon dioxide
- B. Water
- C. Nutrient
- D. Oxygen

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

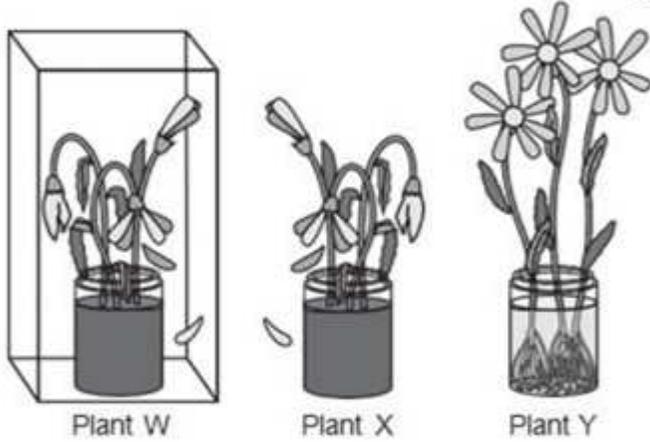
Q7.

Grace and Linda investigate the effects of three growing conditions on plants. They place each of three plants that are the same size and type into its own container. The containers are the same size and shape.

1. Plant W is given soil and water and is put in a clear plastic box where all of the air is removed.
2. Plant X is given soil and left out in the open, but it does not receive water.
3. Plant Y is placed in water and left out in the open, but it does not receive soil.

The diagram shows how the plants look after a few days.

What can be concluded about the effects of different **growing conditions** on plants W, X, and Y?



What can be concluded about the effects of different growing conditions on plants W, X, and Y?

- | | |
|----------------------------------|--|
| a. | The plants get their material for growth from soil |
| b. | The plants get their material for growth from soil and water |
| <input checked="" type="radio"/> | The plants get their material for growth from air and water |
| d. | All of the above |

Four friends were visiting a Botanic Garden. They wondered how the plants at the garden grow. They each had a different idea:

Soto: Plants make their food from things they get from the soil. They use the food they make to grow.

Plants make their food mainly from air and water. They use the food they make to grow.

Belkis: Plants make their food from soil, air, and water. They use sunlight to grow.

Carl: Plants make food mainly from air and water. They don't use the food they make to grow.

Who do you think has the best idea? _____

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

Ameer investigated how the amount of sunlight affects plant growth. He calculated the average growth of three plants A, B and C. Assume that each plant was provided 20 mL of water per day.

| | Amount of Sunlight Per Day | Height in Week 1 | Height in Week 2 | Height in Week 3 | Average |
|---------|----------------------------|------------------|------------------|------------------|---------|
| Plant A | 4 hours | 1 cm | 3 cm | 6 cm | 3.3 cm |
| Plant B | 8 hours | 1.5 cm | 4 cm | 8 cm | 4.5 cm |
| Plant C | 16 hours | 1 cm | 2 cm | 3 cm | 2.0 cm |

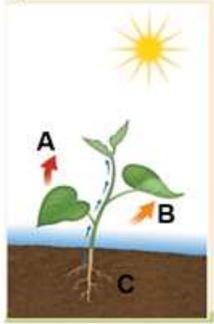
Which plant has the least growth?

- Plant C
- Plant A
- Plant B
- Plant A and C

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

Q1.



The structure of a plant, including its roots and leaves, helps it make the energy it needs to obtain nutrients to survive.

1.a Name the gas needed by plants to make their food.

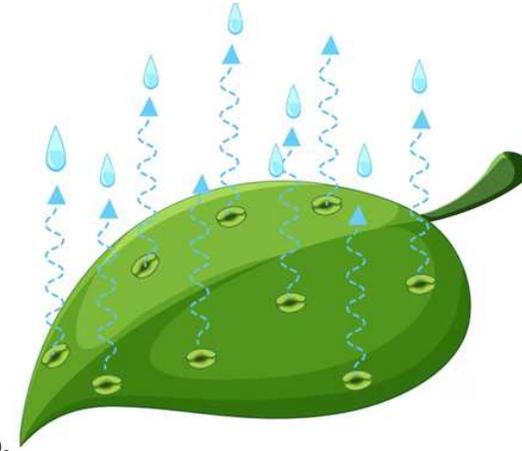
Carbon dioxide

1.b What is the function of the roots?

Roots absorb water and nutrients from the soil.

1.c Why should plants be planted with some space between one another?

Plants need space to grow and spread out the roots to absorb water and nutrients from the soil.



Q10.

Use the figure to answer the following questions.

10a. What is the name of the process when water evaporates from plants leaves?
Transpiration

10b. How do plants replace water after it evaporates from the leaves?

As water evaporates from the leaves, more water is carried from the bottom of the plant to the top. Water moves into the leaf, replacing the water that has evaporated.

10c. Name the structure in the plant which helps the evaporation of water.

Stomata

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

Question

1

The adjacent figure shows a plant structure.

1. Label letters (A), (B), (C) and (D) using the words in table below.

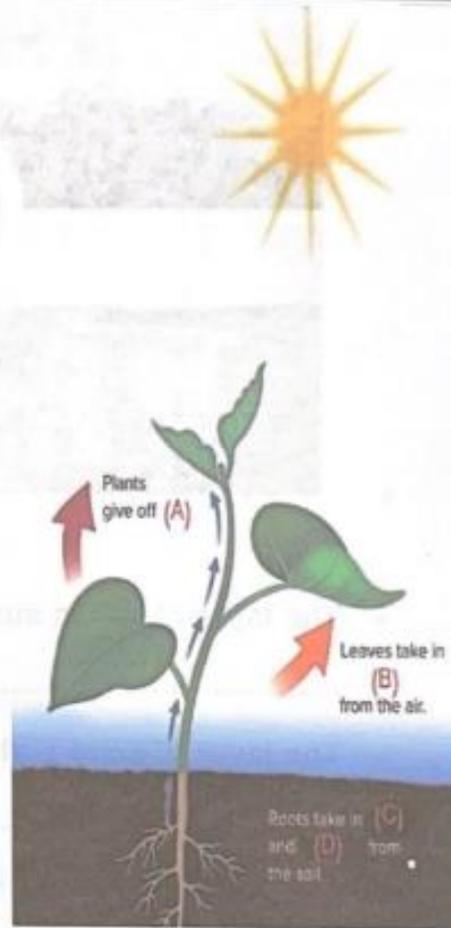
Nutrients – Oxygen – Carbon dioxide – Water

- Letter (A) is **Oxygen**
- Letter (B) is **Carbon dioxide**
- Letter (C) is **Water**
- Letter (D) is **Nutrients**

2. How do plants replace water after water

evaporation from the leaves?

As water evaporates from the leaves, more water is carried from the bottom of the plant to the top. Water moves into the leaf, replacing the water that has evaporated.



Q2.

Ameer investigated how the amount of sunlight affects **plant growth**. He calculated the average growth of three plants A, B and C. Assume that each plant was provided 20 mL of water per day.

| | Amount of Sunlight Per Day | Height in Week 1 | Height in Week 2 | Height in Week 3 | Average |
|---------|----------------------------|------------------|------------------|------------------|---------|
| Plant A | 4 hours | 1 cm | 3 cm | 6 cm | 3.3 cm |
| Plant B | 8 hours | 1.5 cm | 4 cm | 8 cm | 4.5 cm |
| Plant C | 16 hours | 1 cm | 2 cm | 3 cm | 2.0 cm |

2.a Which condition favored the most growth?

The plant B that was exposed to 8 hours of light showed the most growth.

2.b Which plant has the least growth? What can you infer from those results.

Plant C showed the least growth. When exposed to more sunlight, plants might need more water to grow.

2.c What happens to the growth of plant C, if it is provided with 60 ml of water per day?

The plant grow taller as it has enough water.

Q. 3 Write two functions of stomata.

- It carry out gas exchange.(take in carbon dioxide and gives out oxygen)
- Evaporation of water(transpiration)

Q. 4 Write the functions of root.

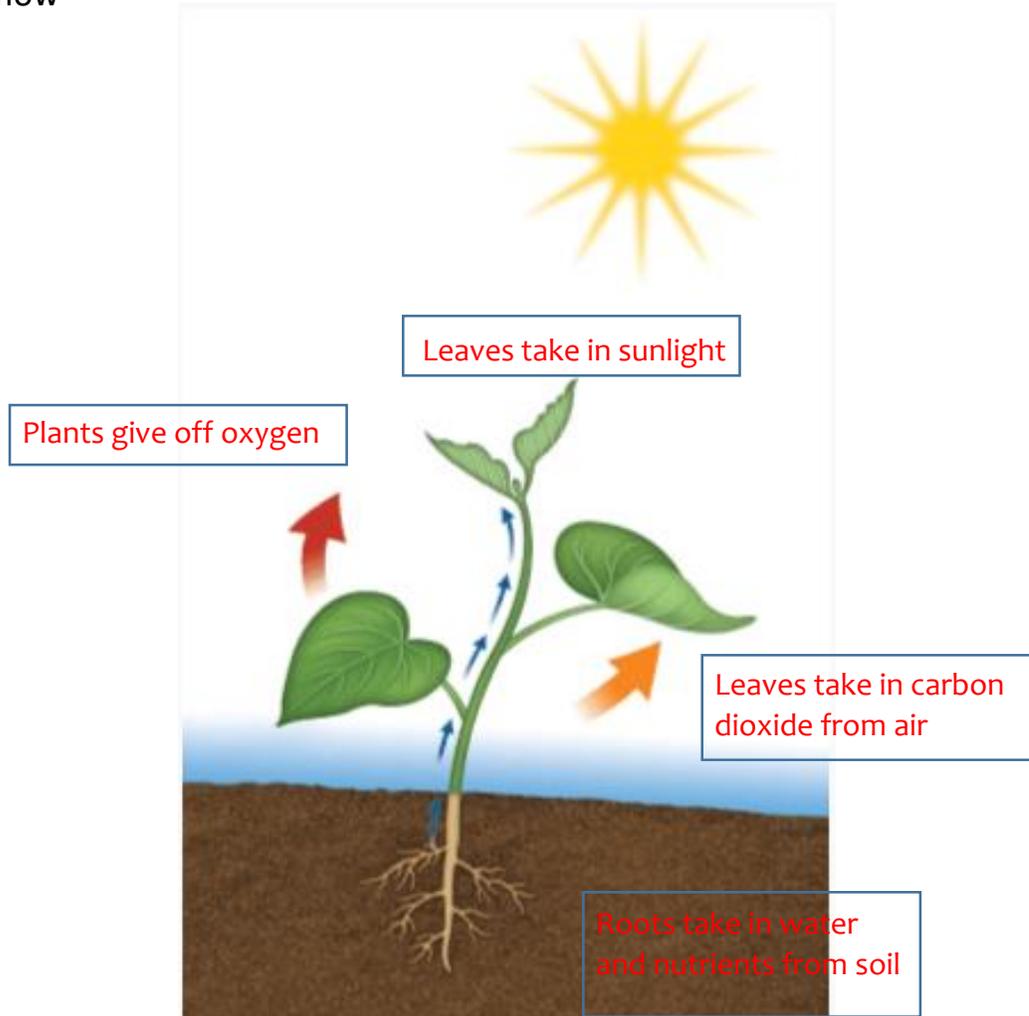
- Roots take in water and nutrients from the soil

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

Q. 4 The structure of a plant, including its roots and leaves, helps it make the energy it needs to obtain nutrients to survive.

Label each part, and draw arrows to indicate the direction of the energy flow



Q.5 Why would it be a disadvantage if plants grow too close together?

Plants that grow too close together compete for the same resources or need more space to grow bigger.

Q.6 Some woody vines can grow on rainforest trees and climb high into the tree canopy. Why this be an advantage?

Vines can access sunlight more by climbing the stem of taller plants.

Module 1: Matter in Ecosystems

Lesson 1: Plant Survival

Q. 8 Amira want to determine the types of nutrients that the plants need to survive. She set up an investigation by placing a plant in a pot. She place the pot in a sunny window and water the plant with 60 milliliters of water every day. She measure the masses of the plant and the soil every seven days for two weeks and record her results in a table, as shown.

Plant Experiment Data

| | Day 1 | Day 7 | Day 14 |
|-------------------|----------|----------|----------|
| Mass of the plant | 15 grams | 20 grams | 35 grams |
| Mass of the soil | 37 grams | 38 grams | 37 grams |

(i) What observation you notice in the mass of the plant?

Mass of the plant increases.

(ii) Identify the plant need from the above data.

Air and water in presence of sunlight

Q.9 A teacher told the students that some plants can grow without soil. They explained that plants can get the matter needed to grow from air and water alone.



(i) What evidence would support this argument?

To show that some plants can grow in water, the experiment's results would need to show plant growth in an environment that did not use soil. Instead, it should show how tall plants grew when using water or another material. Growing plants in soil could be used for a control

(ii) What evidence would show that the matter plants need to grow does not come from the soil?

To show that plants do not get the matter they need for growth from the soil, grow plants either without soil, or measure the mass of the soil over time as plants grow in it. The mass of the soil should not change as the plants get larger.

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

| | | | |
|----|---|----------------|----------------|
| 6 | 5-LS2-1 Students will use models to show the relationships between living things in an ecosystem. | | U2M1L2 page 28 |
| 10 | 5-LS2-1 Students will use models to show the relationships between living things in an ecosystem. | | U2M1L2 page 26 |
| 17 | 5-LS2-1 Students will use models to show the relationships between living things in an ecosystem. | | U2M1L2 page 30 |
| 18 | 5-LS2-1 Students will use models to show the relationships between living things in an ecosystem. | Figure page 30 | U2M1L2 page 30 |
| 20 | 5-LS2-1 Students will use models to show the relationships between living things in an ecosystem. | | U2M1L2 page 27 |

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

6) Organisms that are eaten by other animals are called _____.

- herbivores
- carnivores
- predators
- prey

Animals are _____.

- producers
- consumers
- predators
- prey

9) The job of decomposers is to break down dead plants and animals into useful substances. This job is their _____.

- adaptation
- skill
- niche
- habitat

8) Look at the picture of the hawk and the mouse. What word best describes the hawk?



- herbivore
- decomposer
- predator
- prey

Aeats animals for energy.

- A producers
- consumers
- C decomposers
- D fungi

11) Which of the following is not an abiotic factor?

- rocks
- air
- animals
- water

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

Ancan be introduced through human interaction with an ecosystem.

- A producers
- B invasive species
- C decomposers
- D fungi

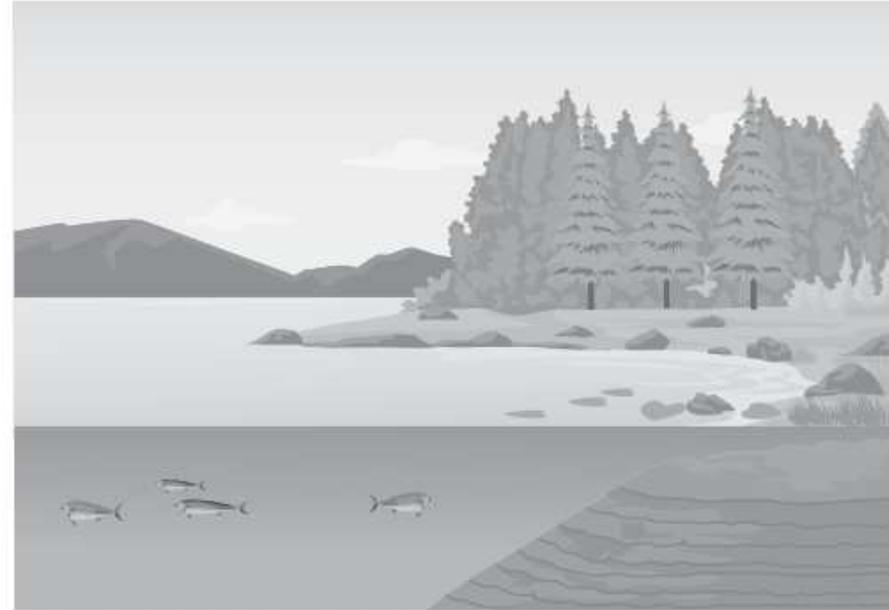
17) Organisms that are eaten by other animals are called _____.



- A herbivores
- B carnivores
- C predators
- D prey

What is the relationship between the plants and animals in an ecosystem?

- A Animals get their energy from eating plants or other animals.
- B All of the animals are able to get their energy directly from the plant
- C Energy is gained when animals eat plants but lost when they eat other animals.
- D The fungi provides energy for all of the animals and plants in the ecosystem.



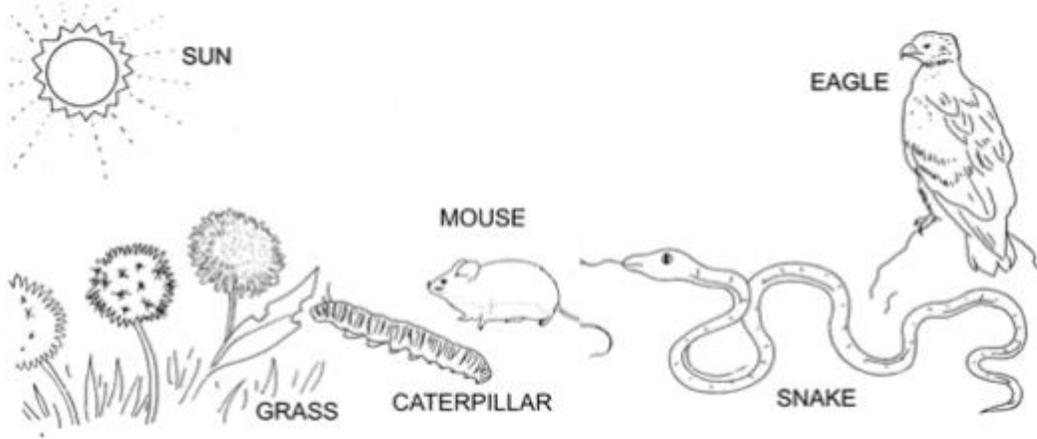
Which of the following choices lists abiotic factors in the environment shown?

- A soil, rocks, air, water, and sunlight
- B fish, air, rocks, trees, and water
- C air, water, soil, plants, and fish
- D sunlight, air, trees, soil, and rocks

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

1) The picture shows living things in an ecosystem. Which organism is a producer?



- mouse
- eagle
- grass
- caterpillar

2) Predators hunt _____ and help control the size of the populations of these organisms.

Correct Answer
Blank 1: prey

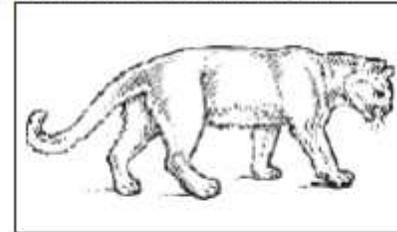
3) An animal who hunts and kills its own food is called a(n) _____.

- predator
- scavenger
- producer
- omnivore

4) An _____ species can harm the environment by growing and spreading quickly in an area.

Correct Answer
Blank 1: invasive

5) This animal is a predator.



If a predator is removed from an ecosystem, then _____.

- the population of predators will likely increase.
- the population of prey will increase.
- the population of prey will decrease.
- the population of predators will not be affected.

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

Which are living parts of an ecosystem?

- A rock, fungi, fly
- B Sun, tree, rock
- C Sun, tree, fly
- D fungi, tree, fly

8) Fill in the blanks using the available answer choices.

Water is _____ factor.
(Blank 1)

Blank 1 options

- an abiotic
- a biotic

9) Which of the following is not an abiotic factor?

- rocks
- air
- animals
- water

3) which of the following define place where plant and animals live and grow naturally?

- A. Niche
- B. Habitat
- C. Ecosystem
- D. Abiotic factors



6) A type of beetle was eating sugar cane crops in Australia and caused harm. Which of the following best defines an organism that causes harm?

- A. Carnivores
- B. Invasive species
- C. Prey
- D. Decomposers



Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

Q4.

Which statement is **NOT** true about invasive species?

| | |
|----------------------------------|--|
| <input checked="" type="radio"/> | It is a native species |
| <input type="radio"/> | b. It harms the environment |
| <input type="radio"/> | c. It spreads quickly |
| <input type="radio"/> | d. It damages the economy and human health |

Q5.

An earthworm in a forest ecosystem breaks down plant matter in the soil. This job is their.....

| | |
|----------------------------------|-------------|
| <input type="radio"/> | a. habitat |
| <input type="radio"/> | b. predator |
| <input type="radio"/> | c. prey |
| <input checked="" type="radio"/> | niche |

1. An organism's role in an ecosystem is its _____.
A. habitat
 B. niche
C. producer
D. prey
2. Think about a marine ecosystem such as an ocean. There are many interactions between living things within this ecosystem. Marine biologists study the population of the plants and animals in this ecosystem when they notice a change. Suppose a predator population suddenly decreased even though the prey population stayed the same. Besides disease, what could explain this change? Circle all that apply.
 A. The predator had its own predator whose population increased.
 B. The population of producers in the ecosystem died out.
 C. The population of prey stayed the same.
 D. A competing predator entered the ecosystem and is getting to the prey first, leaving the original predator without resources.

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

Q3.
The foxes and the rabbits in a forest ecosystem interact and affect each other population.



3a. What would happen to the population of rabbits if the fox population increased in a forest ecosystem?

The rabbit population will decrease.

3b. How do biotic factors in the forest ecosystem interact with the abiotic factor?

Biotic factors like animals and plants rely on water, air and sunlight to survive.

3c. What would happen if the plant population in the forest decreased?

The rabbit population will decrease and this will cause the fox population to decrease.

Q4.

Look at the image of a forest ecosystem.



4a. Identify two biotic and two abiotic factors from the above picture.

Biotic factor..... tree, tiger

Abiotic factor..... air, water

4b. In the forest ecosystem tiger is a predator. What happens if the tiger is removed from the ecosystem?

The prey population will increase.

4c. Identify the producers from the above picture. Explain why they are called producers.

Trees. They produce their own food from sunlight.

Module 1: Matter in Ecosystems

Lesson 2: Interactions of living things

Q 3. Match the correct meanings

| | | | | | |
|-----------|----------|-----------|------------------|-----------|-----------|
| Consumer | Abiotic | Prey | Biotic | Predators | Ecosystem |
| Omnivores | Producer | herbivore | Invasive Species | carnivore | |

| | | | |
|----------------------|--|----------------------|---|
| <input type="text"/> | Organism that feed on animals only | <input type="text"/> | An animal that is hunted and eaten by another animal |
| <input type="text"/> | The non-living components or factors in an environment. | <input type="text"/> | The living components of an ecosystem |
| <input type="text"/> | Organism that feed on plant only | <input type="text"/> | A species introduced into a new ecosystem, is called a: |
| <input type="text"/> | Eat both plants and animals | <input type="text"/> | Organisms that hunt for food |
| <input type="text"/> | Organisms that cannot make their own food. They eat other organisms to get energy. | <input type="text"/> | All of the living and nonliving things in an area that interact with one another. |
| <input type="text"/> | An organism that can make its own food using sunlight and carbon dioxide. | | |

Q 4. Answer the questions from the image.



- (i) Identify the predator.
Tiger
- (ii) Identify the prey.
Deer
- (iii) Why predators are important in ecosystem?
Because they help control the size of prey population.

Module 2: Energy in Ecosystems

Lesson 1: Earth's Major Systems

19 5-ESS2-1 Students will use a model to identify matter on Earth as part of Earth's systems.

U2M2L1 page 66

1. Which of the following is *not* part of Earth's geosphere?

- A. mountains
- B. soil
- C. rivers
- D. volcanoes

2. The biosphere contains all of the nonliving things on Earth.

- A. True
- B. False

3. The _____ includes all the gases around the Earth.

- A. hydrosphere
- B. atmosphere
- C. geosphere
- D. biosphere

4. You are walking through Yosemite National Park. What would you see that are all part of the biosphere?

- A. Pacific tree frogs, mountain chickadees, cumulus clouds
- B. Sierra mountain kingsnake, sedimentary rocks, dragonflies
- C. black bears, freshwater ponds, trout
- D. dragonflies, Pacific tree frogs, black bears

Q8.

Which of these would you be doing if you are interacting with the **hydrosphere**?

a. swimming

b. Rock climbing

c. Riding in an airplane

d. Eating apple

In the given desert ecosystem, which of **Earth's systems** interact with each other?



a. geosphere and hydrosphere only

b. hydrosphere and atmosphere only

c. atmosphere and biosphere only

d. All of Earth's systems interact with each other.

Module 2: Energy in Ecosystems

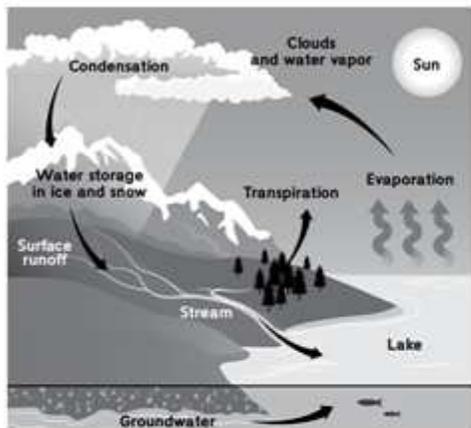
Lesson 1: Earth's Major Systems

19

5-ESS2-1 Students will use a model to identify matter on Earth as part of Earth's systems.

U2M2L1 page 66

This model of the water cycle can be used to explain how Earth's systems interact.

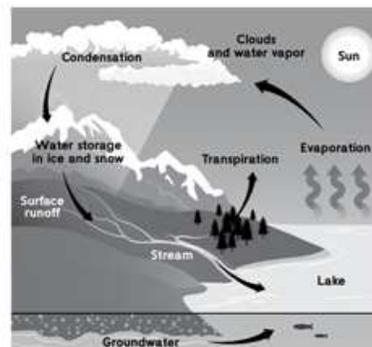


How do the biosphere and hydrosphere both contribute to the water cycle?

- a. They form liquid water.
- b. They cause surface runoff.
- c. They add water vapor to the air.
- d. They move water through the soil.

Q17.

This is a model of the water cycle. Which of them is NOT an interaction between hydrosphere and biosphere.



- a. Fish living in the ocean
- b. Flowing water carries rocks and soil.
- c. Providing water for plants
- d. Plants and animals stay alive with fresh water

Solid and molten rock are part of the

- a. Atmosphere
- b. geosphere
- c. biosphere
- d. hydrosphere

Module 2: Energy in Ecosystems

Lesson 1: Earth's Major Systems

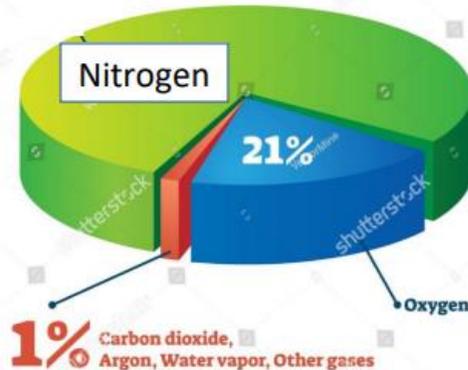
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5-ESS2-1 Students will use a model to identify matter on Earth as part of Earth's systems.

U2M2L1 page 66

7) The adjacent figure shows air composition.

What is the percentage of Nitrogen in the air?



- A. 70 %
- B. 78 %
- C. 79 %
- D. 80 %

8) Where does water vapor go when water evaporate from puddle of street?

- A. It sinks into the street.
- B. It rises to the atmosphere.
- C. It goes into outer space.
- D. It will be absorbed by the plant leaves.



13) which of following the best defines the flow of water after raining over earth's surface?

- A. Runoff
- B. Ground water
- C. Evaporation
- D. Condensation



1) Which of the following is not part of Earth's geosphere?

- A. mountains
- B. soil
- C. rivers
- D. volcanoes

Module 2: Energy in Ecosystems

Lesson 1: Earth's Major Systems

19

5-ESS2-1 Students will use a model to identify matter on Earth as part of Earth's systems.

U2M2L1 page 66

2) Which of Earth's systems interact with each other?

- geosphere and hydrosphere only
- hydrosphere and atmosphere only
- atmosphere and biosphere only
- All of Earth's systems interact with each other.

5) The part of Earth where all living things are found is called the _____.

- geosphere
- biosphere
- hydrosphere
- atmosphere

6) Where does the water go when water evaporates from a puddle on the street?

- It goes into a nearby river or stream.
- It sinks into the street.
- It rises into the atmosphere.
- It goes into outer space.

3) Fill in the blanks using the available answer choices.

The _____ is a layer of gases including oxygen and nitrogen that
(Blank 1)
surrounds the Earth.

Blank 1 options

- atmosphere
- biosphere

Correct Answer

atmosphere

4) All of Earth's liquid and solid water make up the _____.

Correct Answer

Blank 1: hydrosphere

Module 2: Energy in Ecosystems

Lesson 1: Earth's Major Systems

19

5-ESS2-1 Students will use a model to identify matter on Earth as part of Earth's systems.

U2M2L1 page 66

9) Which of these would you be doing if you are interacting with the geosphere?

- rock climbing
- swimming
- riding in an airplane
- sailing

4) The _____ includes all the gases around Earth.



- hydrosphere
- crust
- atmosphere
- cloud

6) Which is **not** an example of how a change in one of Earth's systems may affect another system?

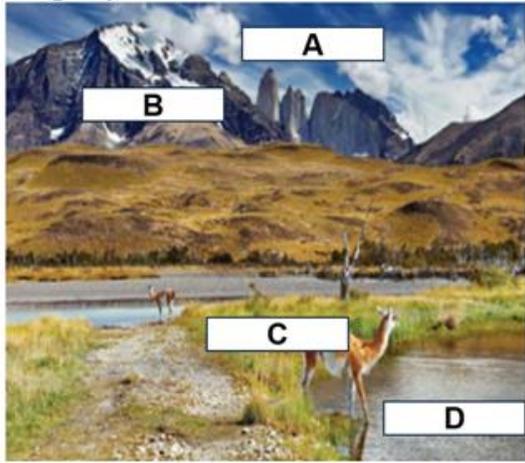
- Lack of rain dries up vegetation on Earth.
- Smoke blocks sunlight from reaching Earth.
- Bears hibernate during the cold winter months.
- Heavy rain washes away soil and rocks from a hillside.

Module 2: Energy in Ecosystems

Lesson 1: Earth's Major Systems

Q8.

The parts that make up Earth can be organized into four main systems atmosphere, hydrosphere, biosphere and geosphere.



8a. Identify the Earth's system A, B, C and D.

A. Atmosphere

B. Geosphere

C. Biosphere

D. Hydrosphere

8b. How do hydrosphere interact with the biosphere in the above model.

Animals drink water (any suitable answer is accepted)

8c. Are all four systems important in an ecosystem? Why or why not?

Yes, all four systems are important because living organisms cannot live without water, air and land.

Question

The figure below shows the earth's systems.

- The layer of gases surrounding earth is called
- The layer of solid and molten rocks inside earth is called
- The layer of earth's liquid and solid water is called
- The layer of all earth's living things is called

Module 2: Energy in Ecosystems

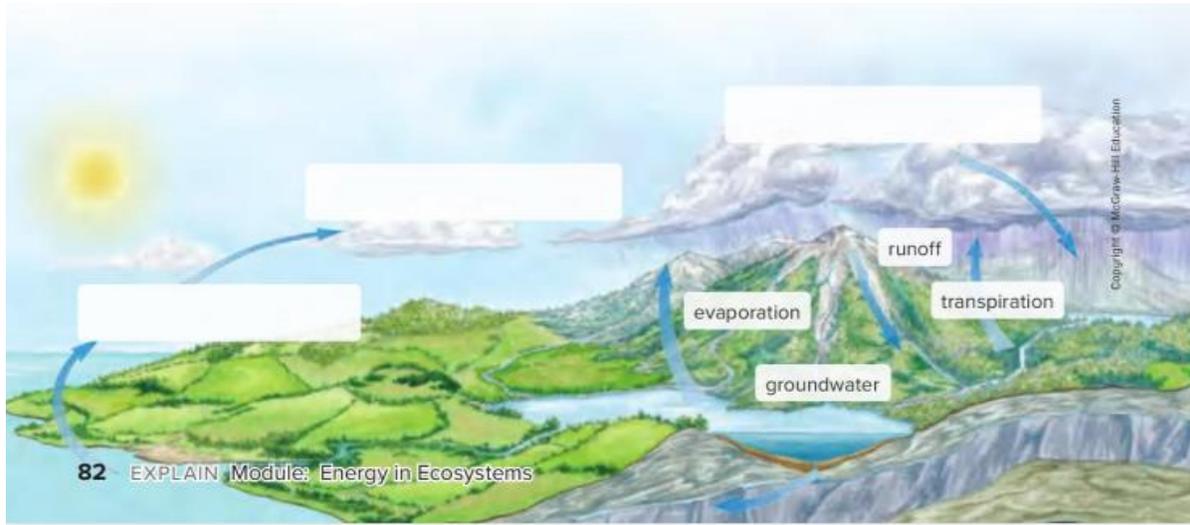
Lesson 2: Cycles of Matter in Ecosystems

| | | | |
|----|--|----------------|----------------|
| 7 | 5-LS2-1 Students will develop and use models of how matter cycles through ecosystems. Students will also be able to explain how these cycles affect the ecosystem. | | U2M2L2 page 83 |
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| 9 | 5-LS2-1 Students will develop and use models of how matter cycles through ecosystems. Students will also be able to explain how these cycles affect the ecosystem. | Figure page 83 | U2M2L2 page 83 |
| 11 | 5-LS2-1 Students will use a model to identify matter on Earth as part of Earth's systems. | | U2M2L1 page 82 |
| 12 | 5-LS2-1 Students will develop and use models of how matter cycles through ecosystems. Students will also be able to explain how these cycles affect the ecosystem. | | U2M2L2 page 82 |
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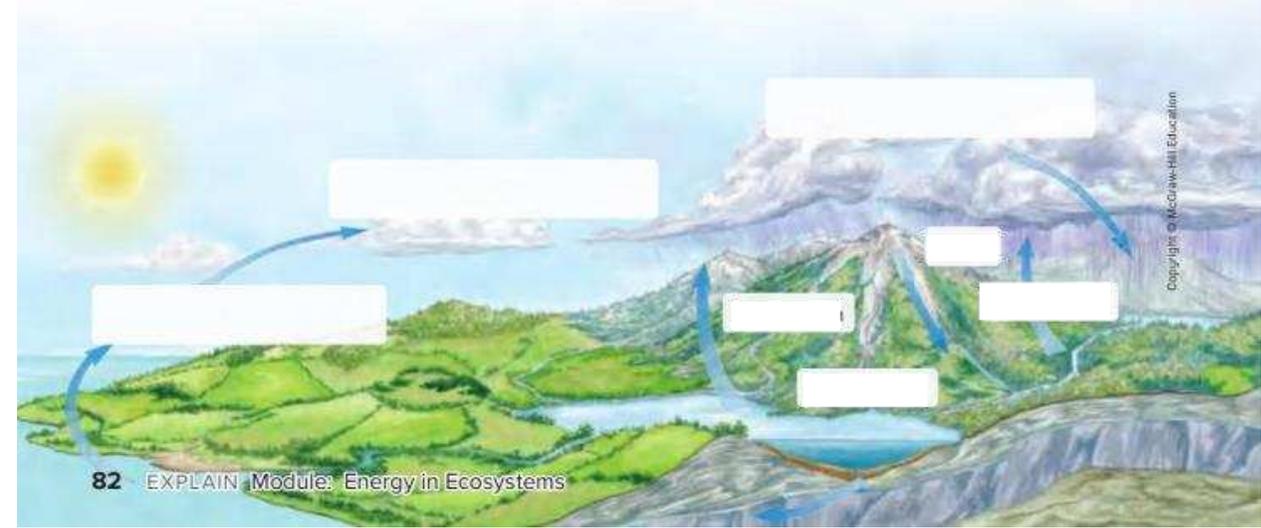
Module 2: Energy in Ecosystems

Lesson 2: Cycles of Matter in Ecosystems

1. Complete the image for the missing process of water cycle.



2. Complete the water cycle process from the key words.
(Evaporation, condensation, precipitation, runoff, transpiration , groundwater)



Which part of the water cycle includes water vapor gas changing to a liquid?



- a. condensation
- b. evaporation
- c. precipitation
- d. transpiration

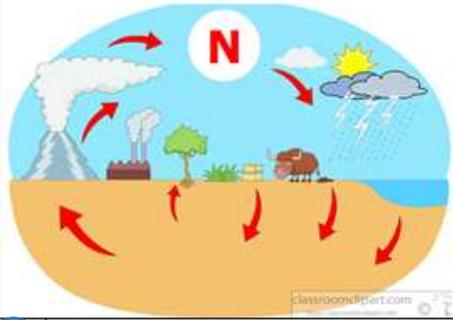
Q18.
How do animals get nitrogen that is stored in the soil?

| | |
|-------------------------------------|--|
| <input type="radio"/> a. | Animals do not take in the nitrogen stored in the soil. |
| <input type="radio"/> b. | Bacteria change the nitrogen into a gas that the animals breathe. |
| <input type="radio"/> c. | The animals can eat the soil and absorb the nitrogen through their digestive system. |
| <input checked="" type="radio"/> d. | Plants absorb the nitrogen from the soil and animals can eat the plants. |

Module 2: Energy in Ecosystems

Lesson 2: Cycles of Matter in Ecosystems

Q19.
In the **nitrogen cycle**, nitrogen cycles between _____.



the air, organisms, and the soil

b. water and plants

c. the air and sunlight

d. rocks, air, and the soil

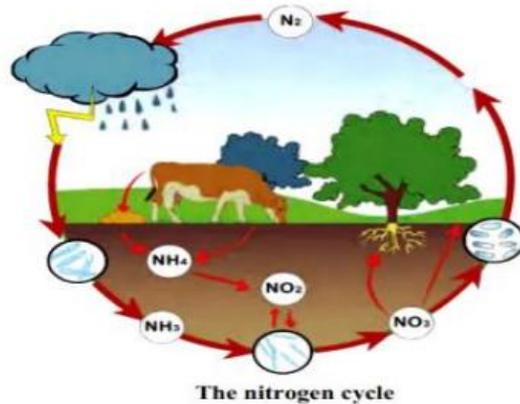
10) which of the following help(s) return nitrogen into atmosphere?

Decomposer and bacteria

B. Bacteria only

C. decomposer only

D. Virus and bacteria



12) which of the following the best explains the important of nodules on the roots

A. the nodules have amoeba that change nitrogen gas into a form plants can use.

B. The nodules have fungi that change nitrogen gas into a forms can use.

The nodules have bacteria that change nitrogen gas into a form plants can use.

D. The nodules have algae that change nitrogen gas into a form plants can use.



4) Which part of the water cycle includes water vapor gas changing to a liquid?

condensation

evaporation

precipitation

transpiration

Module 2: Energy in Ecosystems

Lesson 2: Cycles of Matter in Ecosystems

1) Fill in the blanks using the available answer choices.

Water evaporates from the leaves of a plant and returns to the atmosphere in a process called _____.
(Blank 1)

Blank 1 options

- respiration
- transpiration

Correct Answer

transpiration

2) All living things use energy and release gas as a waste product. What cycle explains the circulation of these gases?

- Water cycle
- Oxygen-Carbon cycle
- Nitrogen cycle

Correct Answer

Oxygen-Carbon cycle

6) James is observing a lake. He wonders how the water in the lake is included in the water cycle. Place the stages of the water cycle in order, starting with the water in the lake.

- 1) _____
- 2) _____
- 3) _____
- 4) _____

Large water droplets fall to the ground from the clouds.

Water vapor cools and condenses on dust particles forming clouds.

Energy from the sun causes the water in the lake to evaporate.

Water droplets combine in the clouds to form larger droplets.

Correct Answer

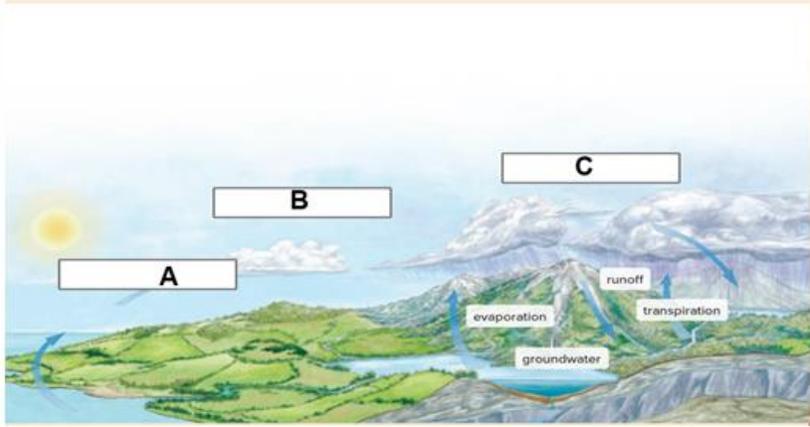
1. Energy from the sun causes the water in the lake to evaporate.
2. Water vapor cools and condenses on dust particles forming clouds.
3. Water droplets combine in the clouds to form larger droplets.
4. Large water droplets fall to the ground from the clouds.



Module 2: Energy in Ecosystems

Lesson 2: Cycles of Matter in Ecosystems

Q7. Matter cycles in an ecosystem.



7a. Name the above cycle and what type of matter is cycling in this model.

Water cycle. Water is the matter cycling in this model.

7b. Identify the process A, B and C.

A. **Evaporation**

B. **Condensation**

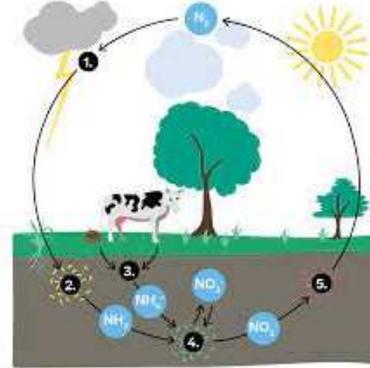
C. **Precipitation**

7c. Identify the main source of energy for this cycle.

Sun

Q9.D

Air is made up of 78 percent nitrogen, but few living things can use nitrogen gas. The nitrogen cycle is the continuous circulation of nitrogen in the ecosystem.



9a. How do bacteria living on plant roots help plants to grow better?

They change nitrogen gas into a form plant can use.

9b. How is nitrogen from the soil transferred to the organisms?

When animals eat plants or other plant-eating animals, they take in the stored nitrogen.

9c. Describe the role of decomposers and bacteria in the nitrogen cycle.

They help to return nitrogen into the atmosphere.

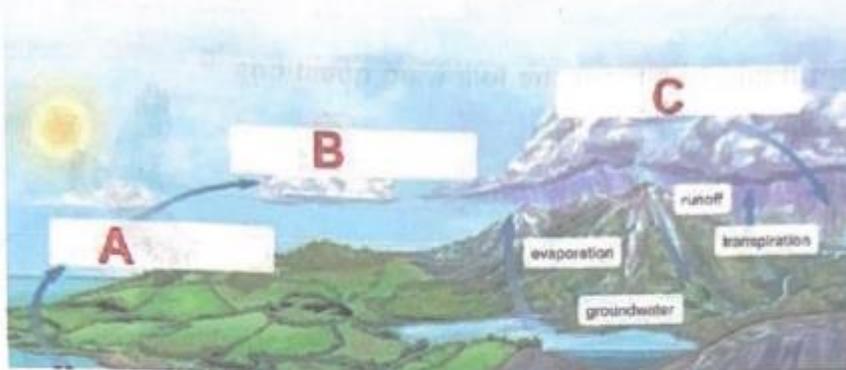
Module 2: Energy in Ecosystems

Lesson 2: Cycles of Matter in Ecosystems

Question

3

Use the figure below to answer the following questions.



1. Define the cycle above.....
2. Label letters (A), (B) and (C).
 - Letter (A) is
 - Letter (B) is
 - Letter (C) is

Which of the following is NOT a way nitrogen from air is fixed to the soil?

- A. By Bacteria that live in roots of plants
- B. By adding fertilizers
- C. By volcanic activity and lightning.
- D. By decomposers