STAAR®
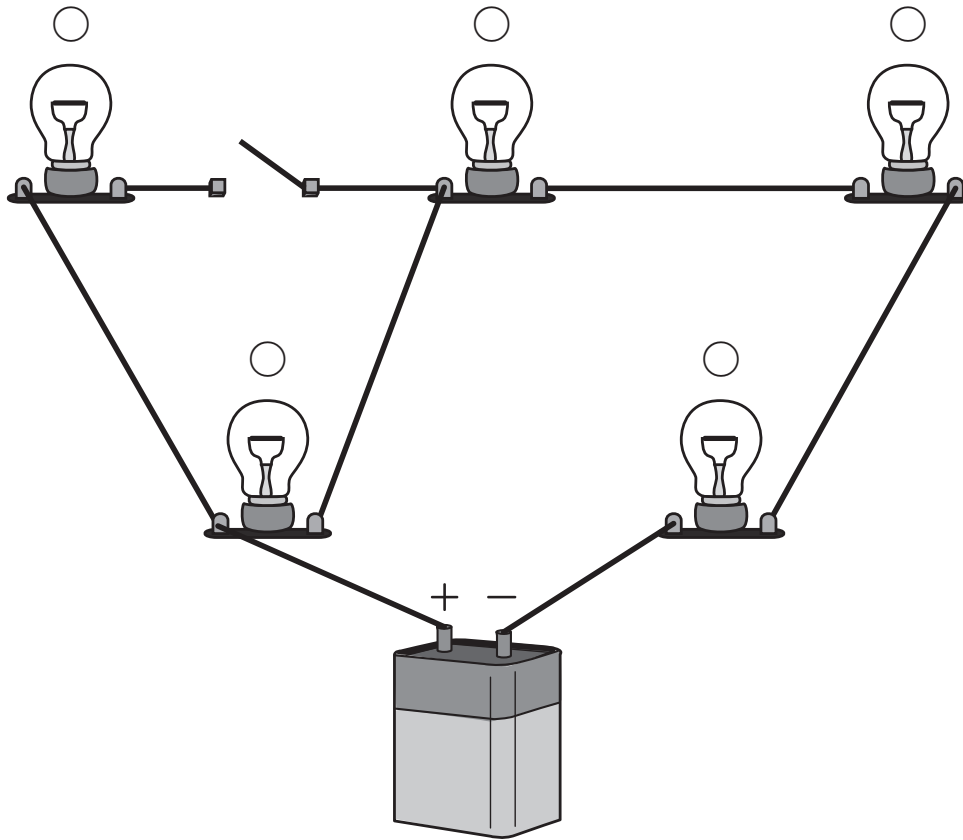
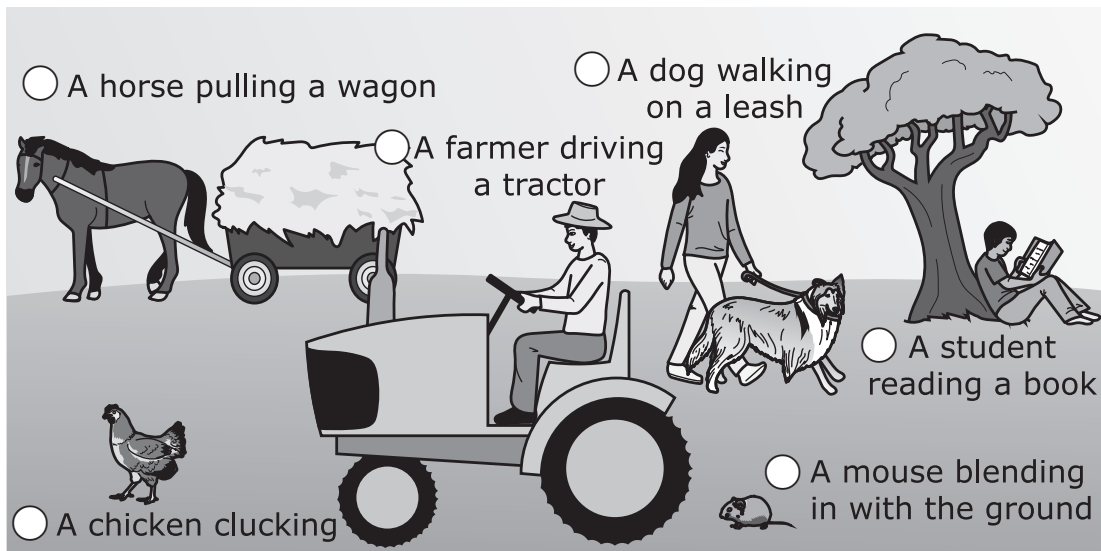State of Texas Assessments of Academic Readiness

GRADE 5
Science

Paper Item Sampler

1 A circuit is shown. Which lightbulbs in the circuit will produce light?

Select **FOUR** correct answers.

2 Which examples in the image demonstrate inherited traits?

Select **TWO** correct answers.

◯ A horse pulling a wagon

◯ A farmer driving a tractor

◯ A dog walking on a leash

◯ A student reading a book

◯ A chicken clucking

◯ A mouse blending in with the ground

3 Students are given five different mixtures to separate. What method can students **BEST** use to separate each mixture into two parts?

Select the correct answer for each box. Each answer may be used more than once.

A Hand sorting   **B** Magnetism   **C** Filtering

Mixture	Separation Method		
Sand and water	Ⓐ	Ⓑ	Ⓒ
Pebbles and glass marbles	Ⓐ	Ⓑ	Ⓒ
Ground pepper and milk	Ⓐ	Ⓑ	Ⓒ
Iron filings and sand	Ⓐ	Ⓑ	Ⓒ
Grapes and cherries	Ⓐ	Ⓑ	Ⓒ

4 What is the correct order of the steps that form sedimentary rock?

Select the correct answer for each box.

A Deposition   **B** Cementation   **C** Erosion   **D** Compaction

Weathering

Ⓐ   Ⓑ   Ⓒ   Ⓓ   Ⓐ   Ⓑ   Ⓒ   Ⓓ

Ⓐ   Ⓑ   Ⓒ   Ⓓ   Ⓐ   Ⓑ   Ⓒ   Ⓓ
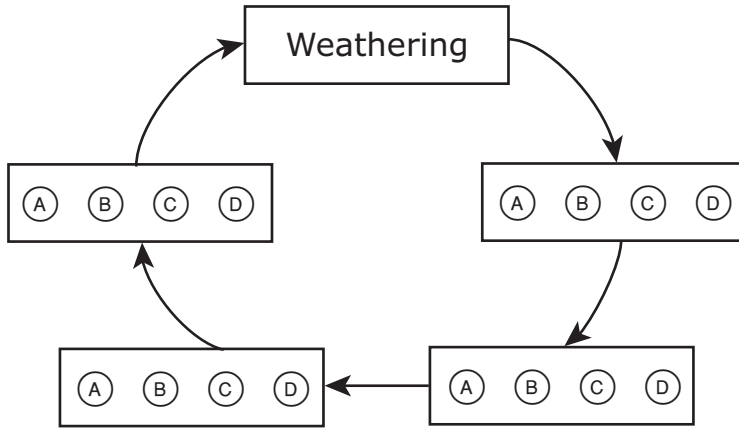
5 This question has two parts. First, answer Part A. Then, answer Part B.

Seaweeds look like plants. They have leaflike structures that make food from light energy and rootlike structures that keep them in place. However, seaweeds are not plants. They are part of a different group of organisms called algae. Seaweeds and plants are compared in the table.

Comparison of Seaweeds with Plants

Seaweeds (algae)	Plants
Can capture energy from the sun with all parts	Mainly capture energy from the sun with leaves
Have simple rootlike structures that can attach to hard surfaces like rocks	Have advanced root systems that get water and nutrients from the soil
Have simple systems inside the organism to absorb water and nutrients directly through all parts	Have advanced systems inside the plant to carry nutrients and water between the roots and the leaves
Have no flowers	Can have flowers

Part A

Which statement **BEST** explains why seaweeds (algae) have some special characteristics that are different from plants?

Ⓐ Seaweeds can live only in a specific type of environment.

Ⓑ Seaweeds compete directly with plants to make food.

Ⓒ Seaweeds need to reproduce faster than plants reproduce.

Ⓓ Seaweeds can survive in areas without sunlight or nutrients.

Part B

Which statement **BEST** supports the answer to Part A?

- Ⓐ Seaweeds can switch to a system of moving water and nutrients to survive on land.

- Ⓑ Seaweeds can grow the same parts as plants if needed.

- Ⓒ Seaweeds have parts and systems that help them survive in bodies of water.

- Ⓓ Seaweeds grow quickly, so they can make more food than plants can.

6 This question has two parts. First, answer Part A. Then, answer Part B.

A student on a farm observes a cow and a horse as shown in the diagram.

Student Observations
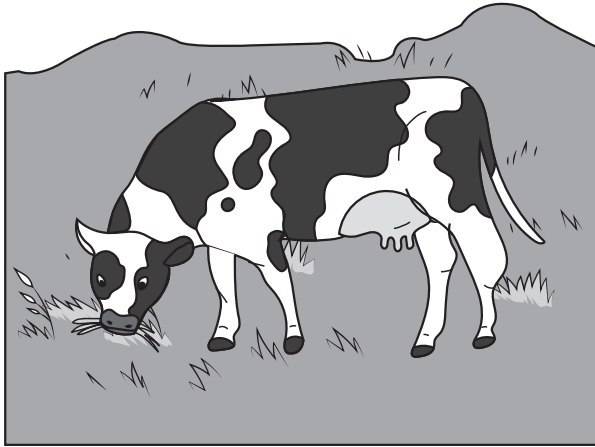
Cow eating grass   Horse drinking water

Part A

Based on the student's observations, which statement **BEST** describes an interaction between one of the animals and a living component of its environment?

- (A) The cow is eating grass that is on the ground.
- (B) The cow is breathing in oxygen from the air.
- (C) The horse is drinking water from a trough.
- (D) The horse is being held down by the force of gravity.

Part B

Which statement **BEST** supports the answer to Part A?

- (A) The grass and the cow grow and reproduce.
- (B) The oxygen is needed by the cow to survive.
- (C) The water moves from the trough to the horse.
- (D) The force of gravity is acting on the horse.

7 A student is conducting an investigation using different objects in water to compare density. Each object is placed in a beaker that contains the same amount of water.

Object 1   Object 2   Object 3
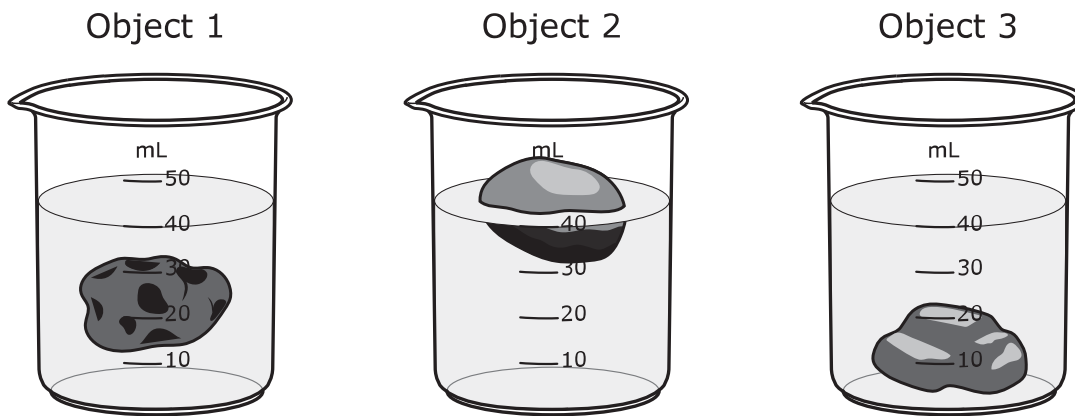
Which statements are supported by this investigation?

Select **TWO** correct answers.

○ A coin can be classified with Object 1 because both have a density equal to liquid water.

○ An ice cube can be classified with Object 2 because both have a density less than liquid water.

○ A glass marble can be classified with Object 3 because both have a density greater than liquid water.

○ A concrete block can be classified with Object 1 or Object 2 because the block has a density less than or equal to liquid water.

○ A feather can be classified with Object 2 or Object 3 because the feather has a density that is greater than or equal to liquid water.

8 A student made a list of some planets in the solar system:

- Jupiter
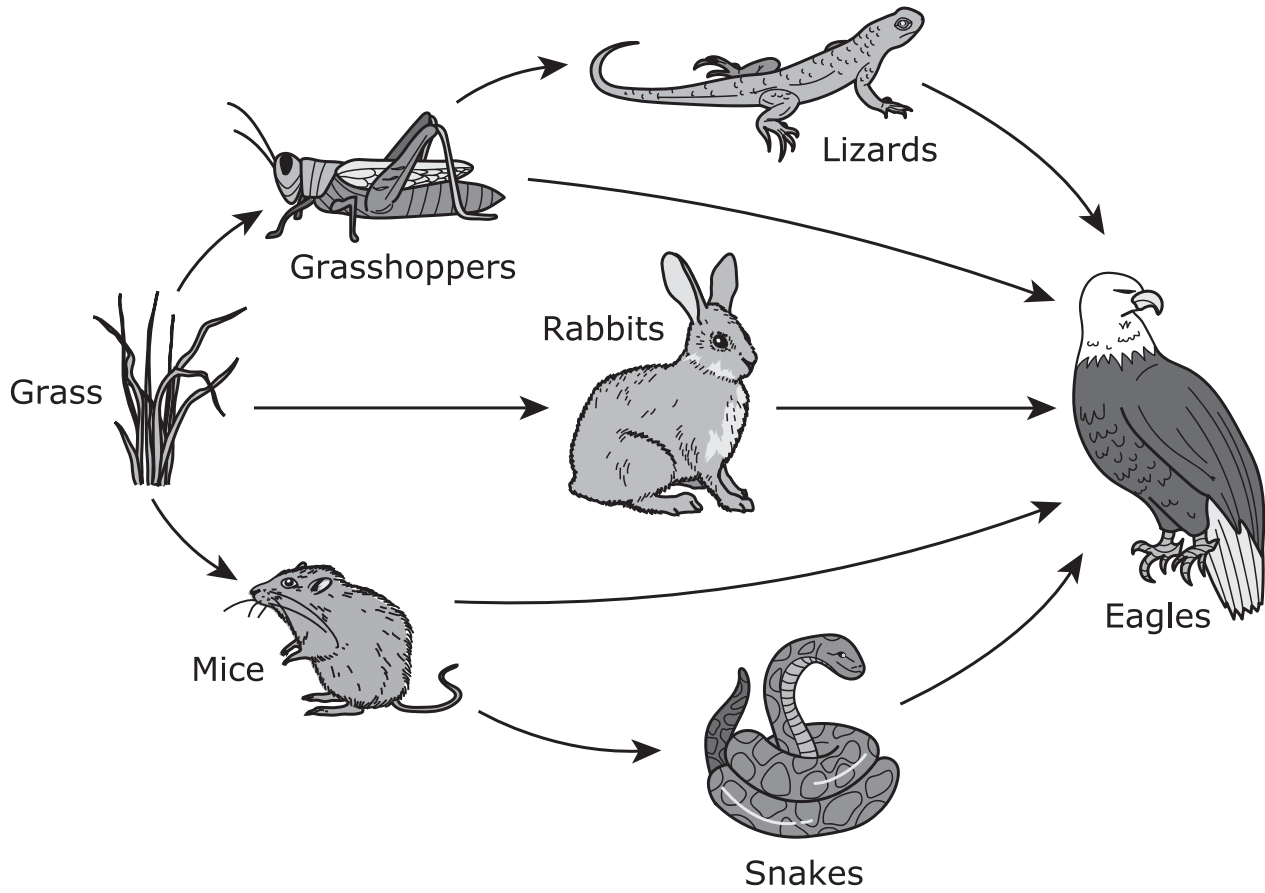- Mercury
- Neptune
- Venus
- Saturn

Which two planets from the list are closest to the Sun?

Select **TWO** correct answers.

○ Jupiter

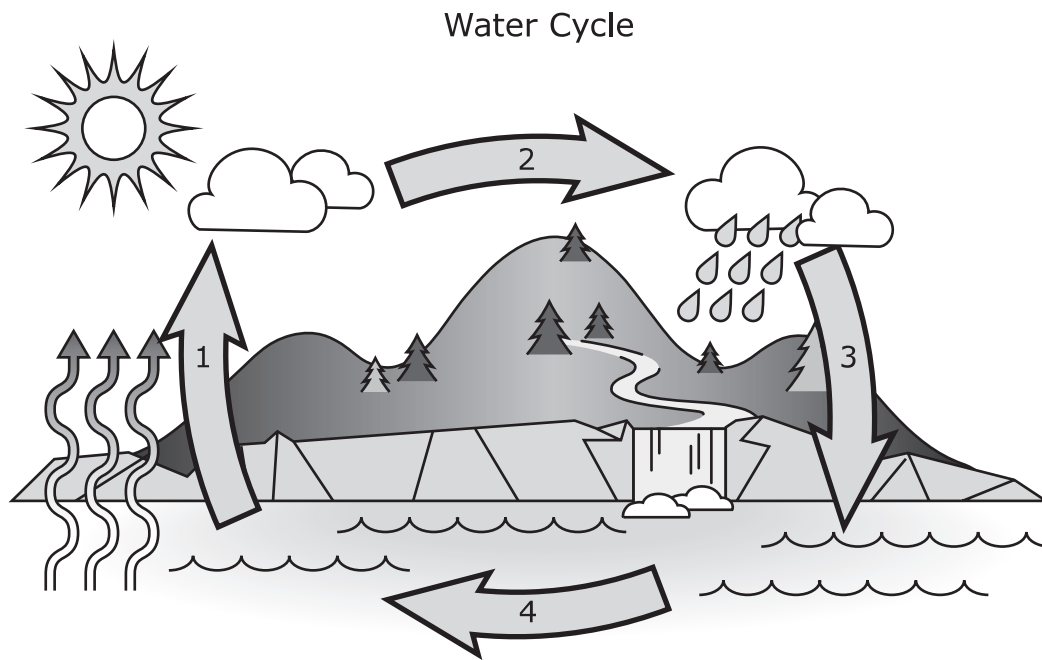○ Mercury

○ Neptune

○ Venus

○ Saturn

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9 A picture of a grassland food web is shown.

What are **TWO** similarities between the lizards and the snakes in terms of energy flow in this food web?

Look at the diagram carefully. Then record your answer in the box provided.

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10 A diagram of the water cycle is shown.

Water Cycle

Clouds are shown in the diagram above Arrow 1 and Arrow 3.

What is the process that forms clouds? Provide a description with your answer.

Look at the diagram carefully. Then record your answer and description in the box provided.

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