

Tennessee Comprehensive Assessment Program

TCAP

Grades 6–8 Science Biology Alternative Assessment Item Release





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Grade 6 Science Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Grade 6 Science ALT Items

Item Information

ETS Item Code: TAS01S0205

Content: Science

Item ID: 1132

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.2.2

AAT or UC: UC

Standard Text: Interpret how materials and energy are transferred through an ecosystem.

AAT or UC Text: Identify the sun's role in the food web.

Category: Interdependence

Correct Answer: B

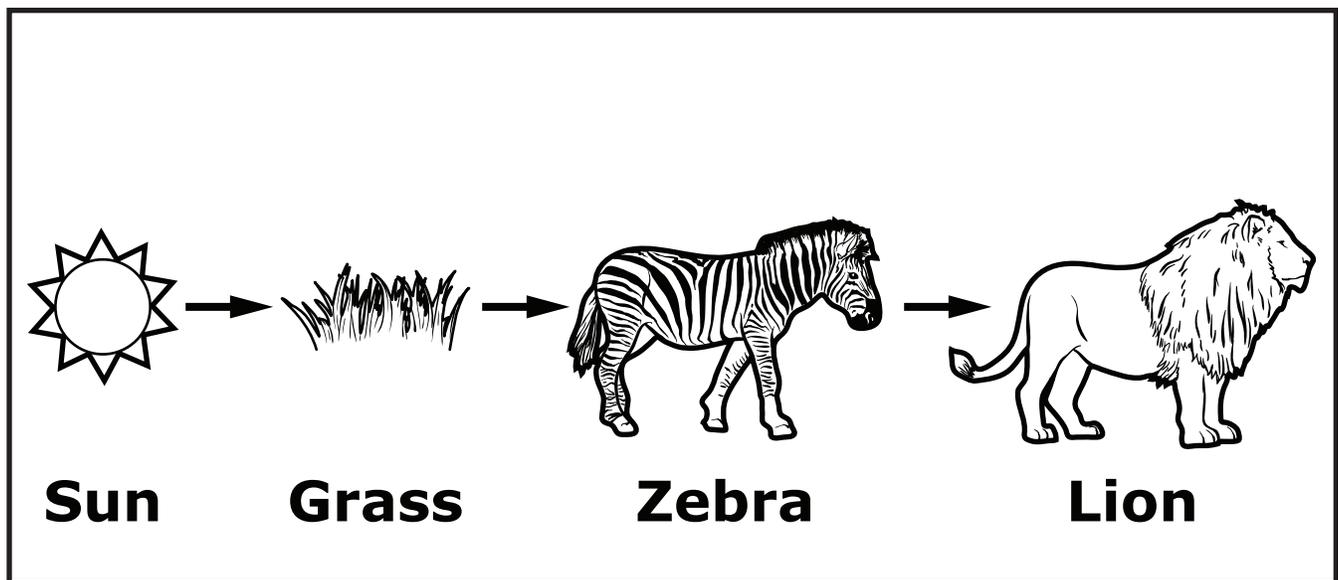
This is about how animals and plants get energy from food.

All living things need food for energy. Some animals eat other animals for energy. Some animals eat plants for energy. Plants are able to make their own food for energy.

Point to the diagram.

[For all students, read "This is a diagram of a food chain. An arrow points from the sun to the grass (point to the sun, then to the grass). An arrow points from the grass to the zebra (point to the grass, then to the zebra). An arrow points from the zebra to the lion (point to the zebra, then to the lion)."]

Food Chain



Where does the grass get energy to make its own food?

Point to and read each option to the student.

- A. from animals
- B. from the sun

Item Information

ETS Item Code: TAS01S0206	Content: Science
Item ID: 1133	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.2.2	AAT or UC: AAT
Standard Text: Interpret how materials and energy are transferred through an ecosystem.	
AAT or UC Text: Demonstrate an understanding of energy flow in an ecosystem.	
Category: Interdependence	
Correct Answer: C	

This is about plants and animals within a food chain.

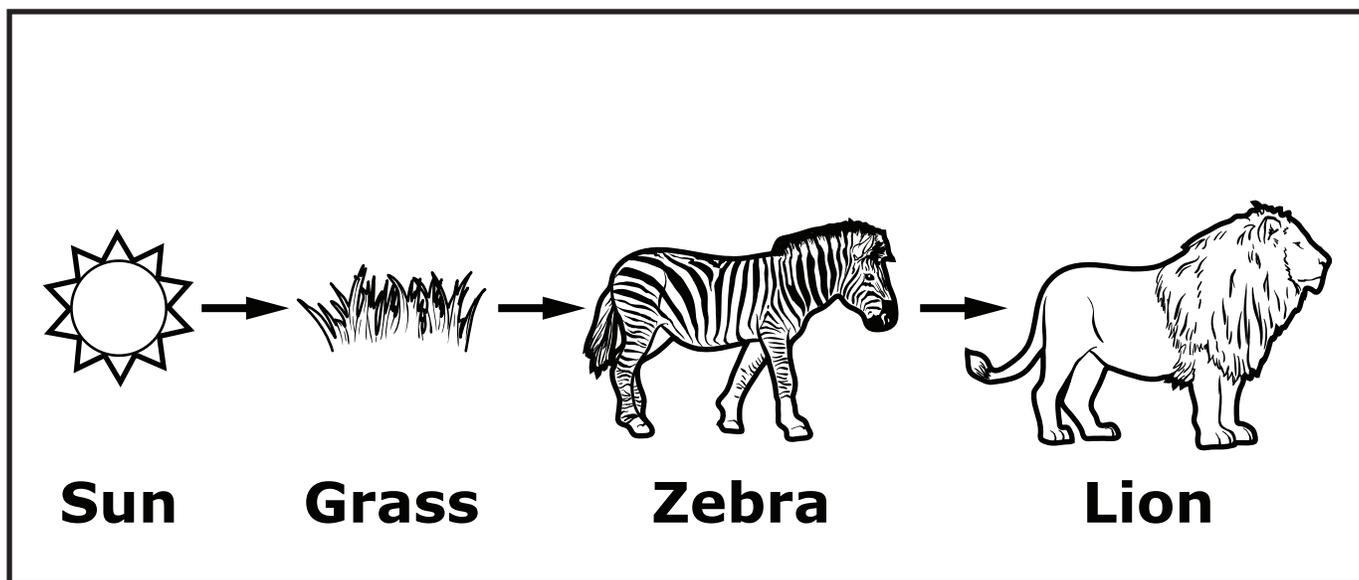
All living things need food for energy. A food chain is a diagram showing how plants and animals get the energy they need.

Most plants are able to capture energy from the sun.

Point to and read the diagram to the student.

[For all students, read "This is a diagram of a simple food chain. An arrow points from the sun to the grass. An arrow points from the grass to the zebra. An arrow points from the zebra to the lion."]

Food Chain



The grass stores energy it captures from the sun. What happens to that stored energy when the zebra eats the grass?

Point to and read each option to the student.

- A. The stored energy stays in the grass.
- B. The stored energy goes back to the sun.
- C. The stored energy becomes energy for the zebra.

Item Information

ETS Item Code: TAS01S0207

Item ID: 1134

DOK Level: 4

Level: 3a

Standard Code: 0607.2.2

Standard Text: Interpret how materials and energy are transferred through an ecosystem.

AAT or UC Text: Demonstrate an understanding of energy flow in an ecosystem.

Category: Interdependence

Correct Answer: B,A,A

Content: Science

Grade: 06

Item Type: MP

Points: 3

AAT or UC: AAT

This is about a food chain.

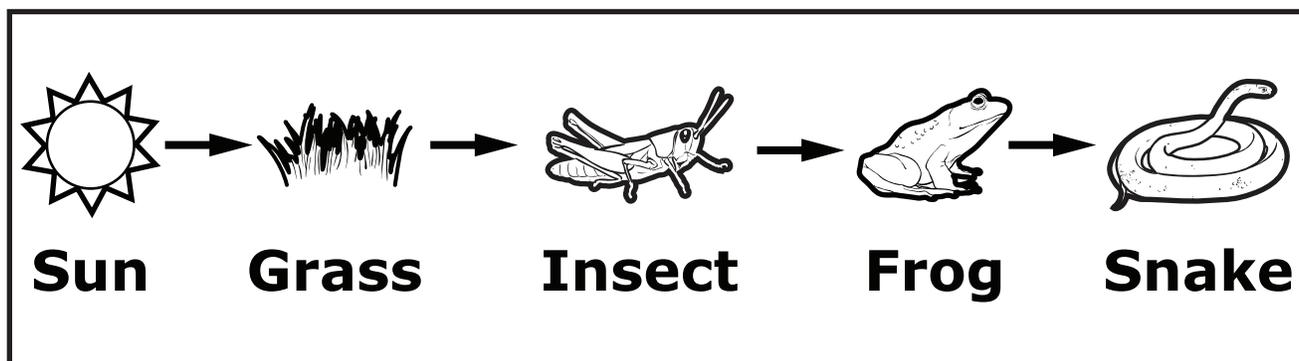
Plants and animals need food for energy.

This food chain shows how animals and plants get energy from food.

Point to and read the diagram to the student.

[For students with visual impairment, read "This is a diagram of a food chain. An arrow points from the sun to the grass. An arrow points from the grass to the insect. An arrow points from the insect to the frog. An arrow points from the frog to the snake."]

Food Chain



Use the food chain to answer these questions.

Point to and read each question to the student.

Does the snake get energy by eating the grass?

A. YES

B. NO

Does the frog get energy from the insect?

A. YES

B. NO

Does the energy the insect gets by eating the grass come from the sun?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0208	Content: Science
Item ID: 1135	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.2.2	AAT or UC: AAT
Standard Text: Interpret how materials and energy are transferred through an ecosystem.	
AAT or UC Text: Demonstrate an understanding of energy flow in an ecosystem.	
Category: Interdependence	
Correct Answer: A,A,B	

This is about a food chain.

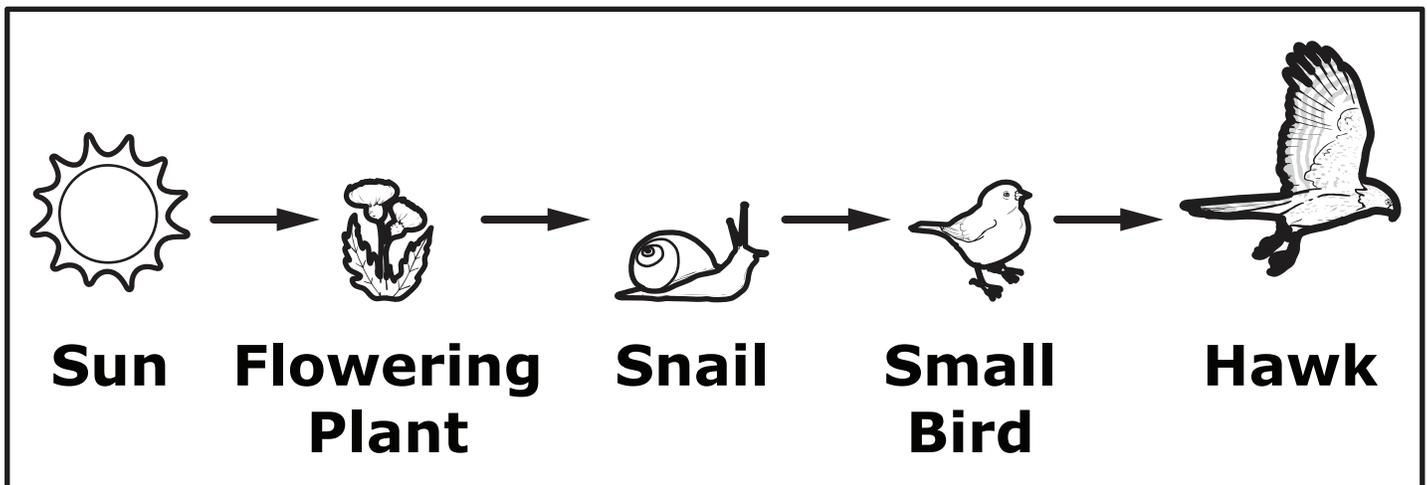
Plants and animals need food for energy.

This food chain shows how animals and plants get energy from food.

Point to the diagram.

[For students with visual impairment, read "This is a diagram of a food chain. An arrow points from the sun to the flowering plant. An arrow points from the flowering plant to the snail. An arrow points from the snail to the small bird. An arrow points from the small bird to the hawk."]

Food Chain



Use the food chain to answer these questions.

Point to and read each question to the student.

Does the hawk get energy by eating the small bird?

A. YES

B. NO

Does the energy for the flowering plant come from the sun?

A. YES

B. NO

Does the snail get energy by eating the hawk?

A. YES

B. NO

Item Information

ETS Item Code: TAS02S0633	Content: Science
Item ID:	Grade: 06
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0607.2.2	AAT or UC: UC
Standard Text: Interpret how materials and energy are transferred through an ecosystem.	
AAT or UC Text: Identify the sun's role in the food web.	
Category: Interdependence	
Correct Answer: A	

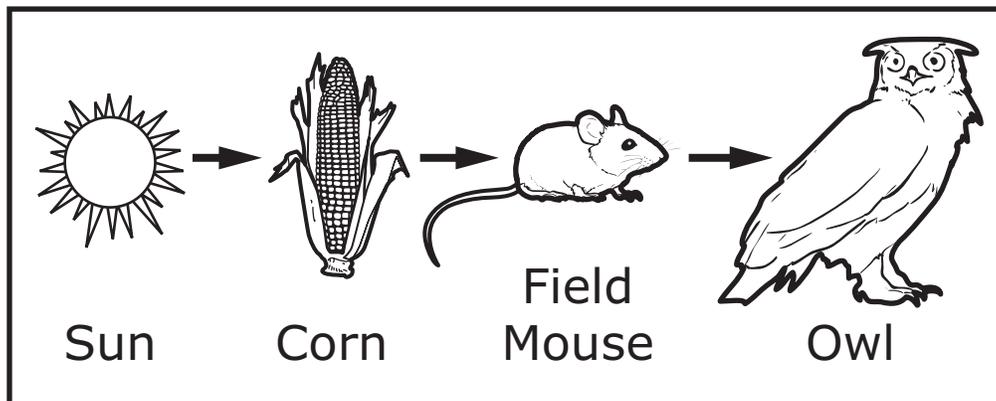
This is about a food chain.

Plants use the sun to make their own food.

Point to the diagram.

[For all students, read "This is a diagram of a food chain. An arrow points from the sun to the corn (point to the sun, then to the corn). An arrow points from the corn to the field mouse (point to the corn, then to the field mouse). An arrow points from the field mouse to the owl (point to the field mouse, then to the owl)."]

Food Chain



What is the sun's job in this food chain?

Point to and read each option to the student.

- A. to give energy to the corn
- B. to take energy from the corn

Item Information

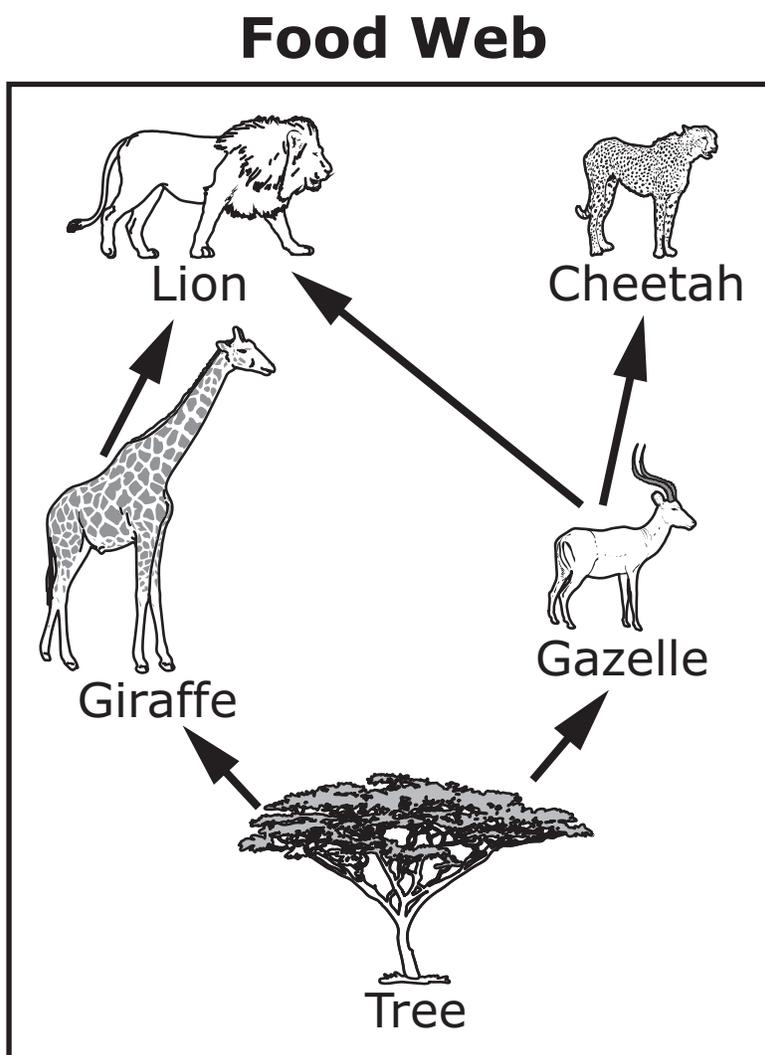
ETS Item Code: TAS02S0634	Content: Science
Item ID:	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.2.2	AAT or UC: AAT
Standard Text: Interpret how materials and energy are transferred through an ecosystem.	
AAT or UC Text: Demonstrate an understanding of energy flow in an ecosystem.	
Category: Interdependence	
Correct Answer: A	

This is about a food web.

A food web is a diagram that shows how plants and animals get the energy they need to survive.

Point to and read the diagram to the student.

[For all students, read "This diagram shows a food web. There is a tree at the bottom of the food web (point to the tree). There is an arrow pointing from the tree to a giraffe (point to the giraffe). There is another arrow pointing from the tree to a gazelle (point to the gazelle). There is an arrow pointing from the giraffe to a lion (point to the giraffe and then to the lion). There is an arrow pointing from the gazelle to the lion (point to the gazelle and then to the lion). There is another arrow pointing from the gazelle to a cheetah (point to the gazelle and then to the cheetah)."]



Which two animals receive energy from the gazelle?

Point to and read each option to the student.

- A. the lion and the cheetah
- B. the cheetah and the giraffe
- C. the giraffe and the lion

Item Information

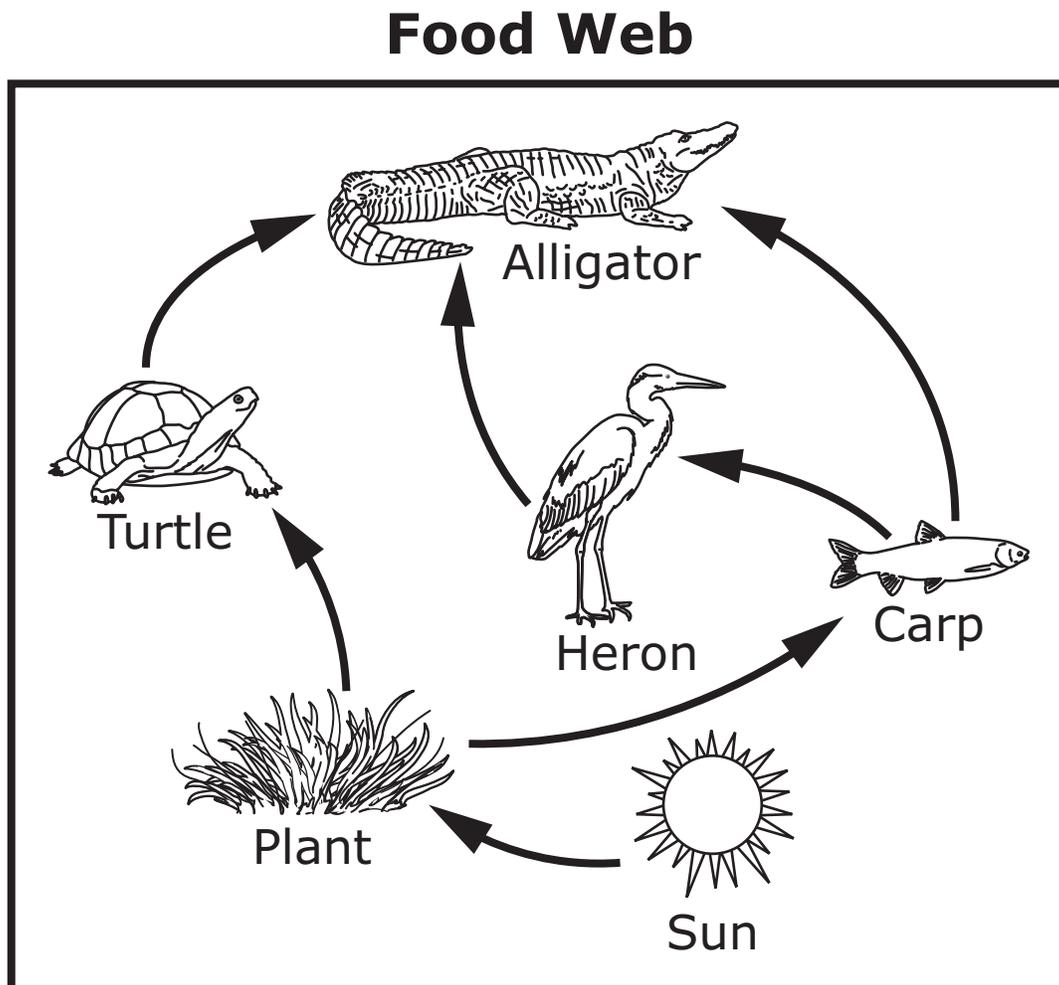
ETS Item Code: TAS02S0635	Content: Science
Item ID:	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.2.2	AAT or UC: AAT
Standard Text: Interpret how materials and energy are transferred through an ecosystem.	
AAT or UC Text: Demonstrate an understanding of energy flow in an ecosystem.	
Category: Interdependence	
Correct Answer: B,A,B	

This is about a food web.

A food web is a diagram that shows how plants and animals get the energy they need to survive.

Point to and read the diagram to the student.

[For all students, read "This diagram shows a food web. An arrow points from the sun to a plant (point to the sun and then to the plant). Two arrows point away from the plant. One arrow points away from the plant to a turtle (point to the turtle). The other arrow points away from the plant to a carp, which is a type of fish (point to the carp). An arrow points from the turtle to an alligator (point to the turtle and then to the alligator). Two arrows point away from the carp (point to the carp). One arrow points from the carp to the alligator (point to the alligator). The other arrow points from the carp to the heron, which is a type of bird (point to the heron). An arrow points from the heron to the alligator (point to the alligator)."]



Use the food web to answer the questions.

Point to and read each question to the student.

Where does the plant get its energy? A. from the carp B. from the sun

Where does the turtle get its energy? A. from the plant B. from the alligator

Where does the heron get its energy? A. from the turtle B. from the carp

Item Information

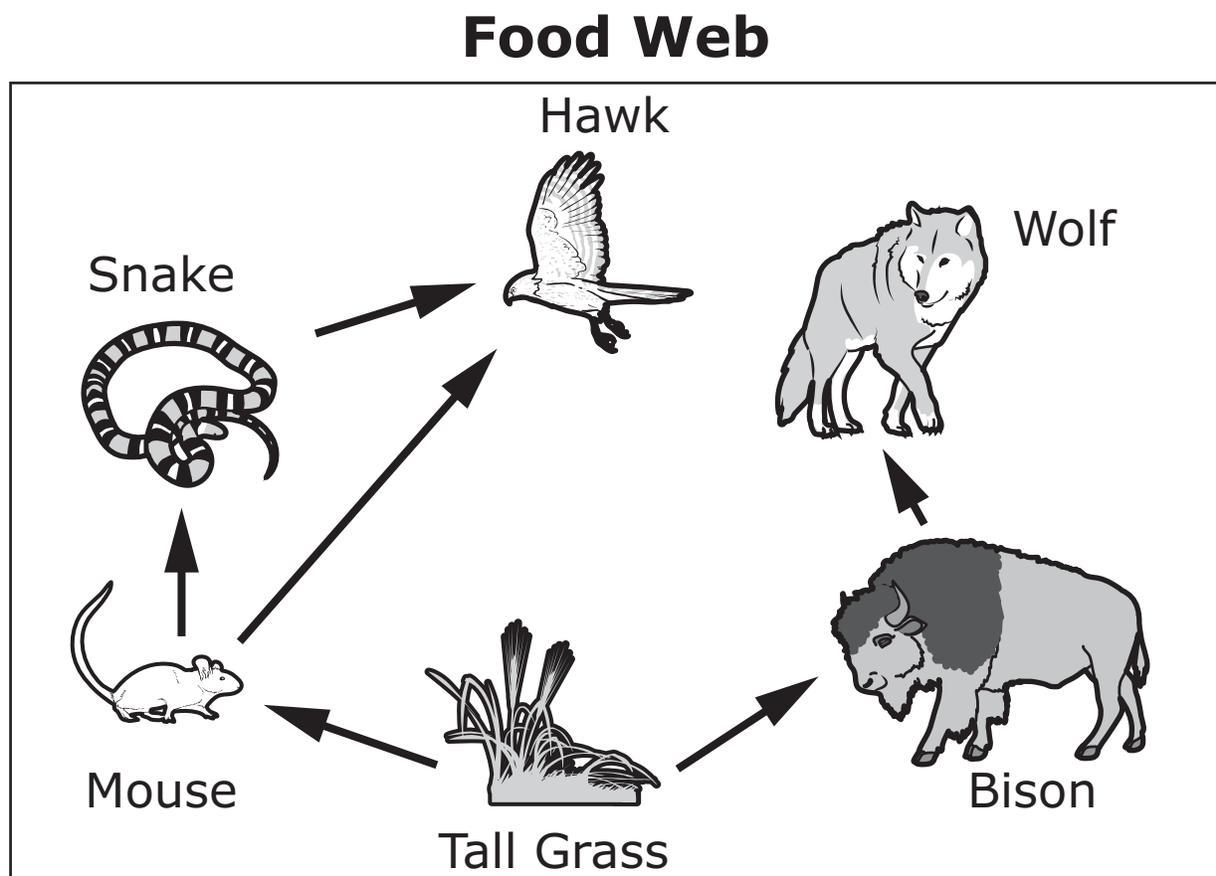
ETS Item Code: TAS02S0636	Content: Science
Item ID:	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.2.2	AAT or UC: AAT
Standard Text: Interpret how materials and energy are transferred through an ecosystem.	
AAT or UC Text: Demonstrate an understanding of energy flow in an ecosystem.	
Category: Interdependence	
Correct Answer: B,A,A	

This is about a food web.

A food web is a diagram that shows how plants and animals get the energy they need to survive.

Point to and read the diagram to the student.

[For all students, read "This diagram shows a food web. There is tall grass at the bottom of the food web (point to the tall grass). Two arrows point away from the tall grass. One arrow points from the tall grass to a mouse (point to the mouse). Another arrow points from the tall grass to a bison (point to the bison). An arrow points from the bison to a wolf (point to the wolf). Two arrows point out from the mouse (point to the mouse). One arrow points from the mouse to a snake (point to the snake). The other arrow points from the mouse to a hawk (point to the hawk). An arrow points from the snake (point to the snake) to the hawk (point to the hawk)."]



Use the food web to answer the questions.

Point to and read each question to the student.

Where does the mouse get its energy? A. from the snake B. from the tall grass

Where does the hawk get some of its energy? A. from the mouse B. from the wolf

Where does the wolf get its energy? A. from the bison B. from the snake

Item Information

ETS Item Code: TAS01S0209

Item ID: 1137

DOK Level: 2

Level: 1

Standard Code: 0607.2.4

Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.

AAT or UC Text: Identify the predator or the prey in a predation model.

Category: Interdependence

Correct Answer: B

Content: Science

Grade: 06

Item Type: SR

Points: 1

AAT or UC: UC

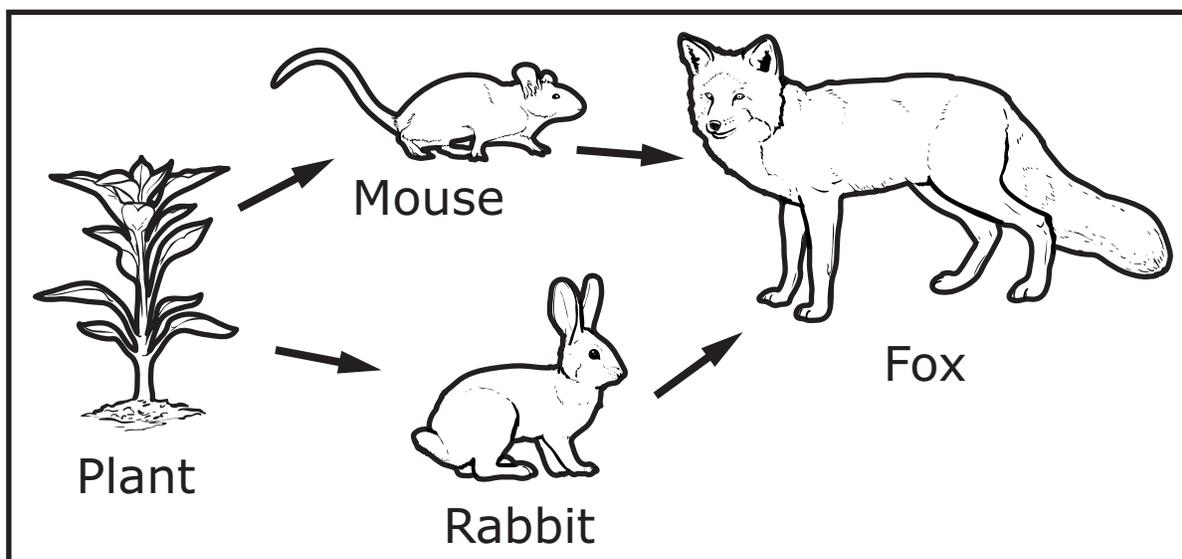
This is about predators.

Predators are animals that hunt and catch other animals.

Point to the diagram.

[For all students, read "This is a forest food web. The mouse and the rabbit eat the plant. (Point to the mouse, then to the plant. Point to the rabbit, then to the plant.) The fox eats the mouse and the rabbit. (Point to the fox.)"]

Forest Food Web



Which animal is the predator in this food web?

Point to and read each option to the student.

- A. the rabbit
- B. the fox

Item Information

ETS Item Code: TAS01S0210	Content: Science
Item ID: 1138	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.2.4	AAT or UC: AAT
Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
AAT or UC Text: Identify examples of relationships in an ecosystem (e.g., competition, predation, or symbiosis).	
Category: Interdependence	
Correct Answer: B	

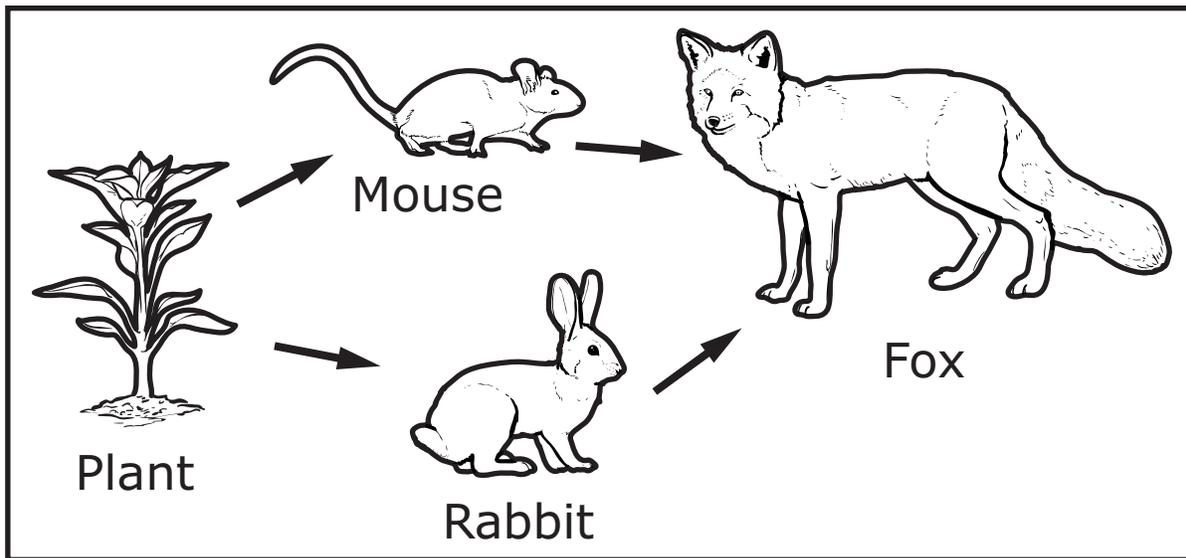
This is about animals that eat the same food.

Some animals eat plants to survive. Different animals might eat the same type of plant.

Point to the diagram.

[For all students, read "This is a forest food web. The mouse and the rabbit eat the plant. (Point to the mouse, then to the plant. Point to the rabbit, then to the plant.) The fox eats the mouse and the rabbit. (Point to the fox, then point to the mouse and the rabbit.)"]

Forest Food Web



Which two animals eat the same food?

Point to and read each option to the student.

- A. the fox and the rabbit
- B. the rabbit and the mouse
- C. the mouse and the fox

Item Information

ETS Item Code: TAS01S0211	Content: Science
Item ID: 1139	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.2.4	AAT or UC: AAT
Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
AAT or UC Text: Identify examples of relationships in an ecosystem (e.g., competition, predation, or symbiosis).	
Category: Interdependence	
Correct Answer: A,A,B	

This is about how two different animals work together.

A sea anemone is an animal that lives in the ocean and has stinging tentacles. A sea anemone stays in one place its entire life. Clown fish can often be found living in sea anemones. Sea anemones provide a protective home and do not attack the clown fish. Clown fish clean sea anemones and scare predators away from the anemones.

Point to and read each question to the student.

Do clown fish help sea anemones? A. YES B. NO

Do sea anemones help clown fish? A. YES B. NO

Do clown fish bring food to sea anemones? A. YES B. NO

Item Information

ETS Item Code: TAS01S0212	Content: Science
Item ID: 1140	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.2.4	AAT or UC: AAT
Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
AAT or UC Text: Identify examples of relationships in an ecosystem (e.g., competition, predation, or symbiosis).	
Category: Interdependence	
Correct Answer: A,A,B	

This is about how two different animals work together.

Zebras do **not** have very good eyesight. Zebras have very good hearing. Ostriches do **not** have very good hearing. Ostriches have very good eyesight.

Zebras and ostriches often travel together to warn each other of danger.

Point to and read each question to the student.

Does the zebra warn the ostrich if danger is approaching?

- A. YES B. NO

Does the ostrich help the zebra?

- A. YES B. NO

Does the zebra eat the ostrich?

- A. YES B. NO

Item Information

ETS Item Code: TAS02S0637	Content: Science
Item ID:	Grade: 06
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0607.2.4	AAT or UC: UC
Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
AAT or UC Text: Identify the predator or the prey in a predation model.	
Category: Interdependence	
Correct Answer: A	

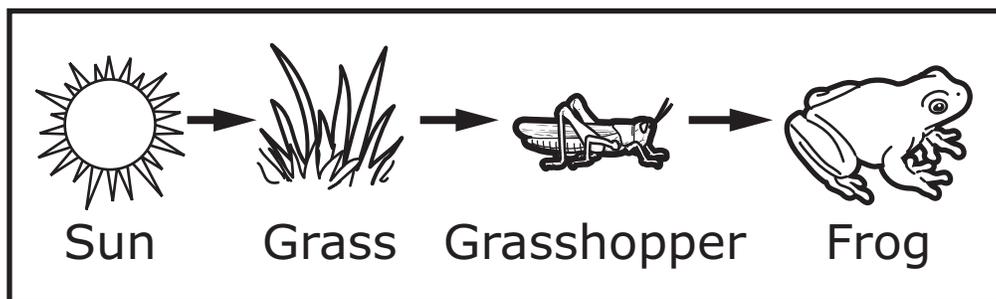
This is about prey.

Some animals need to eat other animals to survive. The animals that are eaten by other animals are called prey.

Point to the diagram.

[For all students, read "This is a diagram of a food chain. An arrow points from the sun to the grass (point to the sun, then to the grass). An arrow points from the grass to a grasshopper (point to the grass, then to the grasshopper). An arrow points from the grasshopper to a frog (point to the grasshopper, then to the frog)."]

Food Chain



Which animal in this food chain is the prey?

Point to and read each option to the student.

- A. the grasshopper
- B. the frog

Item Information

ETS Item Code:	TAS02S0638	Content:	Science
Item ID:		Grade:	06
DOK Level:	3	Item Type:	SR
Level:	2	Points:	1
Standard Code:	0607.2.4	AAT or UC:	AAT
Standard Text:	Identify the environmental conditions and interdependencies among organisms found in the major biomes.		
AAT or UC Text:	Identify examples of relationships in an ecosystem (e.g., competition, predation, or symbiosis).		
Category:	Interdependence		
Correct Answer:	B		

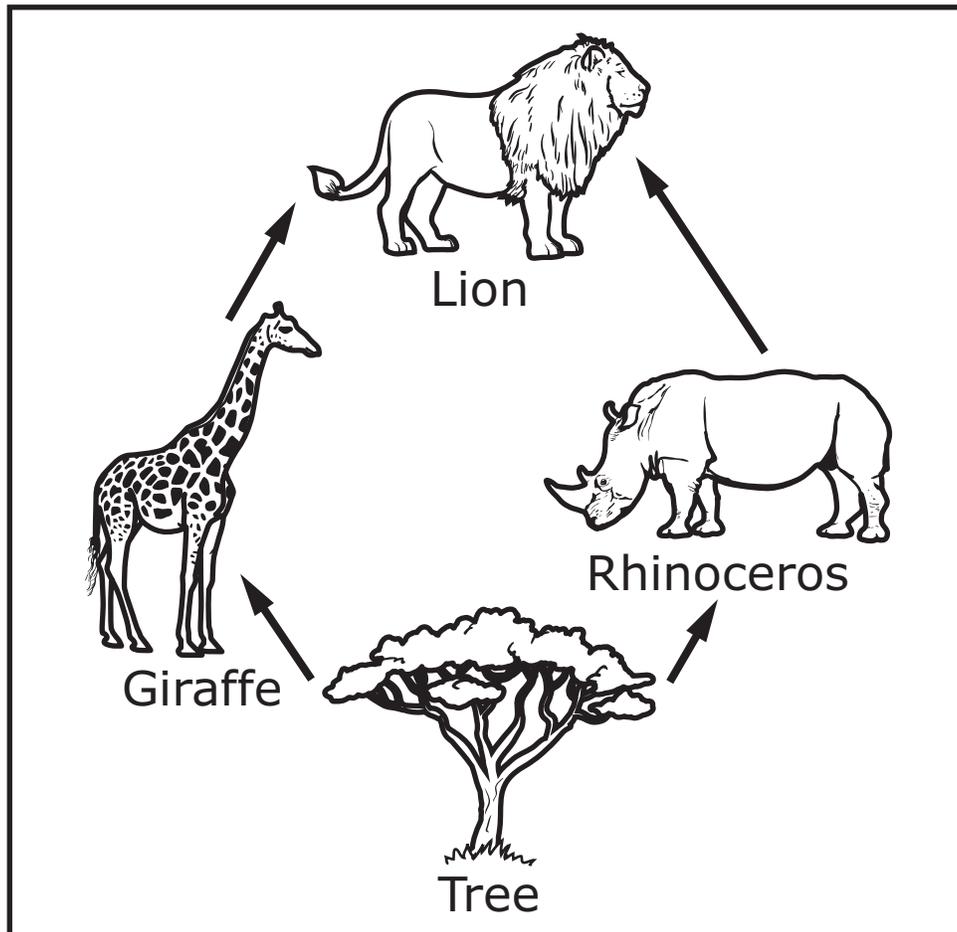
This is about animals who hunt for food.

Animals that hunt other animals are called predators.

Point to and read the diagram to the student.

[For all students, read "This is a diagram of a food web. There is a tree at the bottom of the food web (point to the tree). An arrow points from the tree to a giraffe (point to the giraffe). An arrow points from the giraffe to a lion (point to the lion). Another arrow points from the tree to a rhinoceros (point to the tree and then to the rhinoceros). An arrow points from the rhinoceros to the lion (point to the lion)."]

Food Web



Which animal is the predator in this food web?

Point to and read each option to the student.

- A. the rhinoceros
- B. the lion
- C. the giraffe

Item Information

ETS Item Code: TAS02S0639	Content: Science
Item ID:	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.2.4	AAT or UC: AAT
Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
AAT or UC Text: Identify examples of relationships in an ecosystem (e.g., competition, predation, or symbiosis).	
Category: Interdependence	
Correct Answer: A,B,A	

This is about animals that compete for food.

Animals that eat the same food as other animals that live in the same area are in competition.

Point to and read the data table to the student.

[For all students, read "This data table shows five animals and the food they eat. This is a fruit fly (point to the fruit fly). It eats rotting fruit (point to the fruit). This is a butterfly (point to the butterfly). It eats rotting fruit and flowering plants (point to the fruit and then to the flowering plants). This is a grasshopper (point to the grasshopper). It eats grasses (point to the grasses). This is a frog (point to the frog). It eats the fruit fly, the butterfly, and the grasshopper (point to the fruit fly, then the butterfly, and then the grasshopper under food source). This is a bird (point to the bird). It eats the fruit fly and the butterfly (point to the fruit fly and then to the butterfly under food source)."]

Food Sources for Animals

Animal	Food Source		
 Fruit Fly	 Fruit		
 Butterfly	 Fruit	 Flowering Plants	
 Grasshopper	 Grasses		
 Frog	 Fruit Fly	 Butterfly	 Grasshopper
 Bird	 Fruit Fly	 Butterfly	

Use the information in the data table to answer the questions.

Point to and read each question to the student.

Does the fruit fly compete with the butterfly for food?

A. YES

B. NO

Does the grasshopper compete with the frog for food?

A. YES

B. NO

Does the bird compete with the frog for some food sources?

A. YES

B. NO

Item Information

ETS Item Code: TAS02S0640	Content: Science
Item ID:	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.2.4	AAT or UC: AAT
Standard Text: Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
AAT or UC Text: Identify examples of relationships in an ecosystem (e.g., competition, predation, or symbiosis).	
Category: Interdependence	
Correct Answer: A,B,B	

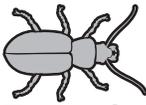
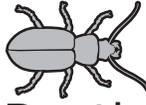
This is about animals that compete for food.

Animals that eat the same food as other animals are in competition.

Point to and read the data table to the student.

[For all students, read "This data table shows four animals and the food they eat. This is a beetle (point to the beetle). It eats berries (point to the berries). This is a sparrow (point to the sparrow). It also eats berries (point to the berries). This is a grasshopper (point to the grasshopper). It eats grasses (point to the grasses). This is a dragonfly (point to the dragonfly). It eats the beetle (point to the beetle under food source)."]

Food Sources for Animals

Animal	Food Source
 Beetle	 Berries
 Sparrow	 Berries
 Grasshopper	 Grasses
 Dragonfly	 Beetle

Use the information in the data table to answer the questions.

Point to and read each question to the student.

Does the beetle compete with the sparrow for food?

A. YES

B. NO

Does the grasshopper compete with the dragonfly for food?

A. YES

B. NO

Does the sparrow compete with the dragonfly for food?

A. YES

B. NO

Item Information

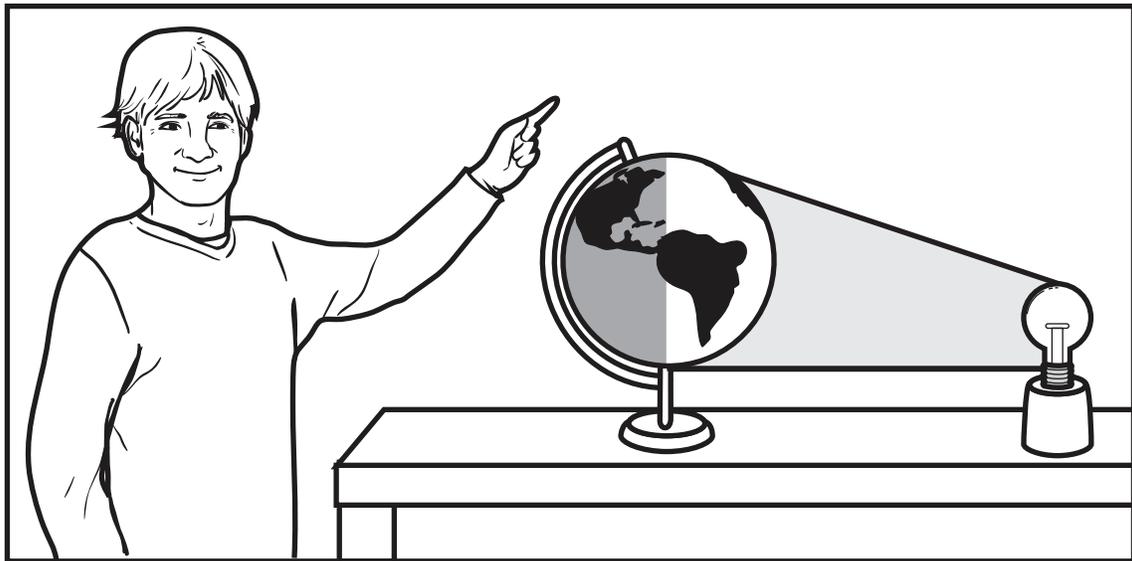
ETS Item Code: TAS01S0213	Content: Science
Item ID: 1141	Grade: 06
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0607.6.3	AAT or UC: UC
Standard Text: Distinguish among a day, lunar cycle, and year based on the movements of the earth, sun, and moon.	
AAT or UC Text: Identify the positions, using an Earth-sun model, which shows day and night.	
Category: The Universe	
Correct Answer: A	

This is about night and day.

A teacher made a model to show how the positions of the sun and Earth make night and day. Half of Earth faces the sun. The other half of Earth is dark.

Point to the picture of the model.

[For all students, read "This shows a model made from a globe and a light bulb. The globe represents Earth (point to the globe). The light bulb represents the sun (point to the light bulb)."]



Which of these describes the side of the globe that is facing the light bulb?

Point to and read each option to the student.

- A. daytime
- B. nighttime

Item Information

ETS Item Code: TAS01S0214

Content: Science

Item ID: 1142

Grade: 06

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0607.6.3

AAT or UC: AAT

Standard Text: Distinguish among a day, lunar cycle, and year based on the movements of the earth, sun, and moon.

AAT or UC Text: Identify an Earth-sun model, which demonstrates that Earth's orbit around the sun corresponds to a calendar year, and an Earth-moon model that demonstrates that the moon's orbit around Earth corresponds to approximately one month.

Category: The Universe

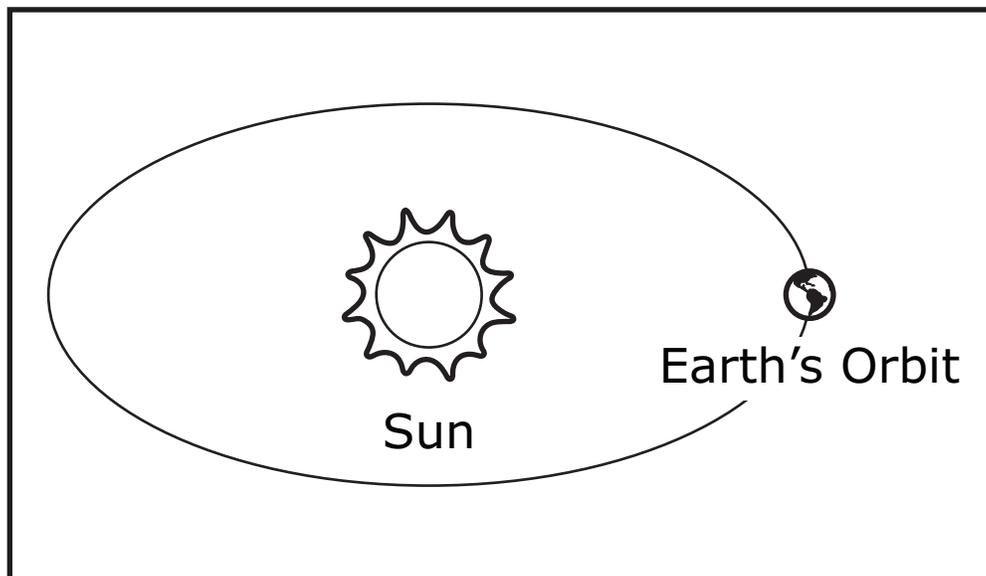
Correct Answer: A

This is about the solar system.

Earth is a planet. Earth travels around the sun on a path called an orbit.

Point to the diagram.

[For all students, read "This is a diagram of Earth's orbit around the sun."]



How much time does it take Earth to complete one orbit?

Point to and read each option to the student.

- A. one year
- B. one week
- C. one month

Item Information

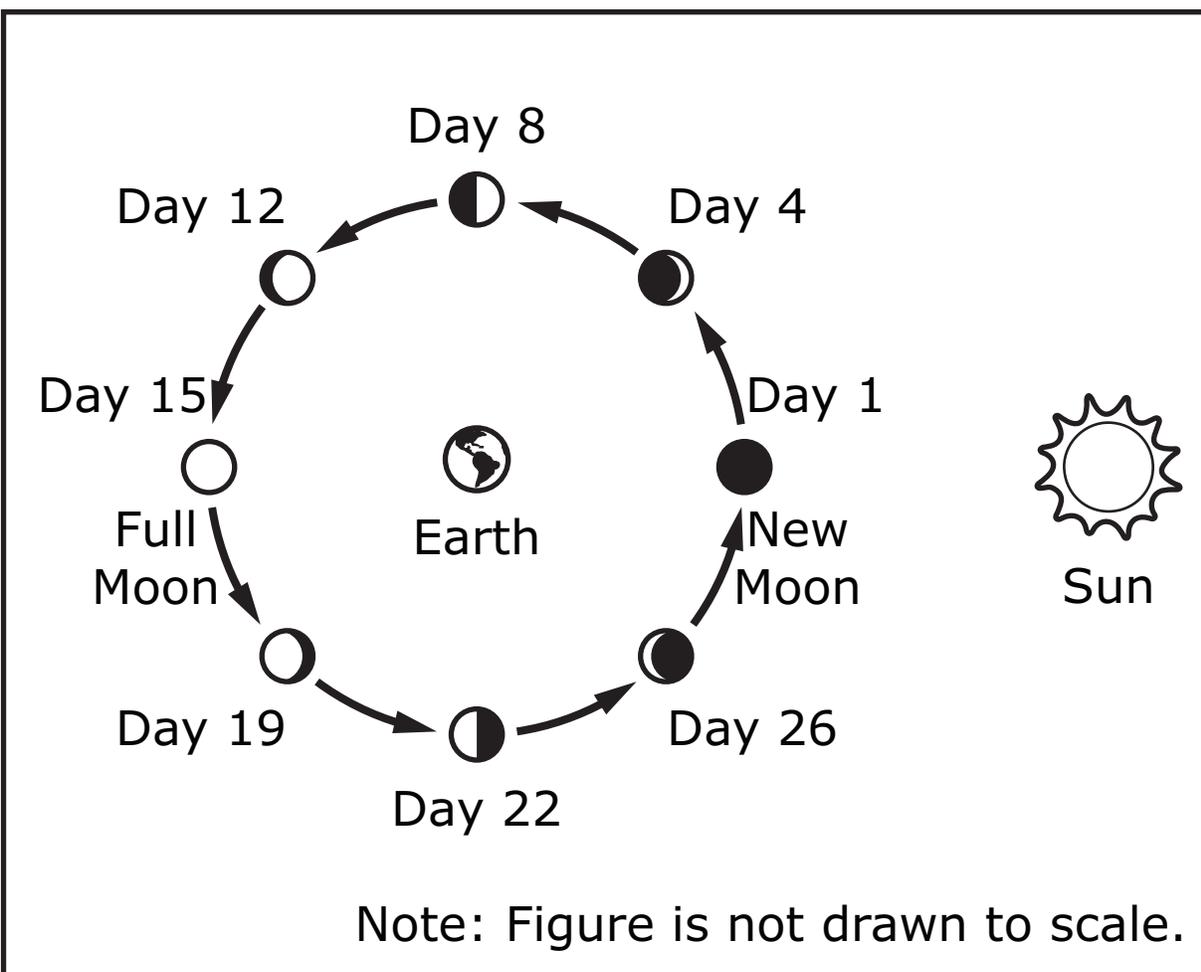
ETS Item Code: TAS01S0215	Content: Science
Item ID: 1143	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.6.3	AAT or UC: AAT
Standard Text: Distinguish among a day, lunar cycle, and year based on the movements of the earth, sun, and moon.	
AAT or UC Text: Identify an Earth-sun model, which demonstrates that Earth's orbit around the sun corresponds to a calendar year, and an Earth-moon model that demonstrates that the moon's orbit around Earth corresponds to approximately one month.	
Category: The Universe	
Correct Answer: B,A,B	

This is about the sun, Earth, and the moon.

The moon travels around Earth on an orbit. One side of the moon faces the sun.

Point to the diagram.

[For all students, read "This diagram shows the phases of the moon as it revolves around Earth. (Point to 'New Moon.') The new moon happens on the first day of the cycle. More of the moon can be seen in the sky as the days continue. A full moon can be seen in the sky on the fifteenth day of the cycle (point to 'Full Moon'). The moon then appears to become smaller as the days continue. The cycle ends about one month after the new moon. The cycle is then repeated (point to the cycles of the moon around Earth)."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Does it take the moon less than one week to complete one orbit around Earth?

A. YES

B. NO

Does it take about one month for the moon to travel around Earth?

A. YES

B. NO

Does Earth complete one orbit around the sun in one month?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0216

Content: Science

Item ID: 1144

Grade: 06

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0607.6.3

AAT or UC: AAT

Standard Text: Distinguish among a day, lunar cycle, and year based on the movements of the earth, sun, and moon.

AAT or UC Text: Identify an Earth-sun model, which demonstrates that Earth's orbit around the sun corresponds to a calendar year, and an Earth-moon model that demonstrates that the moon's orbit around Earth corresponds to approximately one month.

Category: The Universe

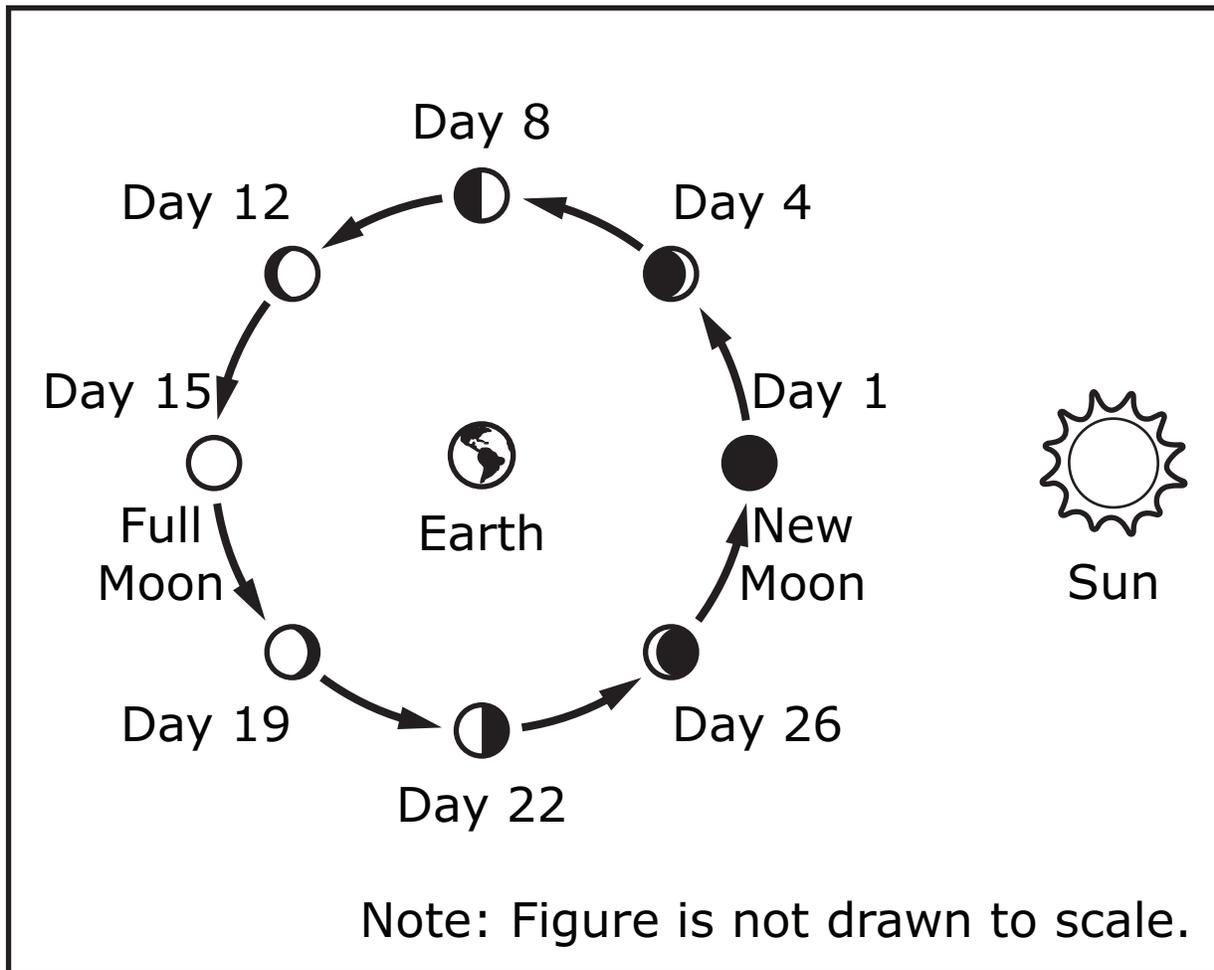
Correct Answer: A,B,B

This is about the sun, Earth, and the moon.

The moon travels around Earth on an orbit. One side of the moon faces the sun.

Point to the diagram.

[For all students, read "This diagram shows the phases of the moon as it revolves around Earth. (Point to 'New Moon.') The new moon happens on the first day of the cycle. More of the moon can be seen in the sky as the days continue. A full moon can be seen in the sky on the fifteenth day of the cycle (point to 'Full Moon'). The moon then appears to become smaller as the days continue. The cycle ends about one month after the new moon. The cycle is then repeated (point to the cycles of the moon around Earth)."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Does it take the moon more than one day to complete one orbit around Earth?

A. YES

B. NO

Does the moon complete one orbit around Earth in one week?

A. YES

B. NO

Does Earth travel around the moon?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0217

Content: Science

Item ID: 1145

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.6.6

AAT or UC: UC

Standard Text: Use a diagram that shows the positions of the earth and sun to explain the four seasons.

AAT or UC Text: Identify characteristics of the four seasons.

Category: The Universe

Correct Answer: B

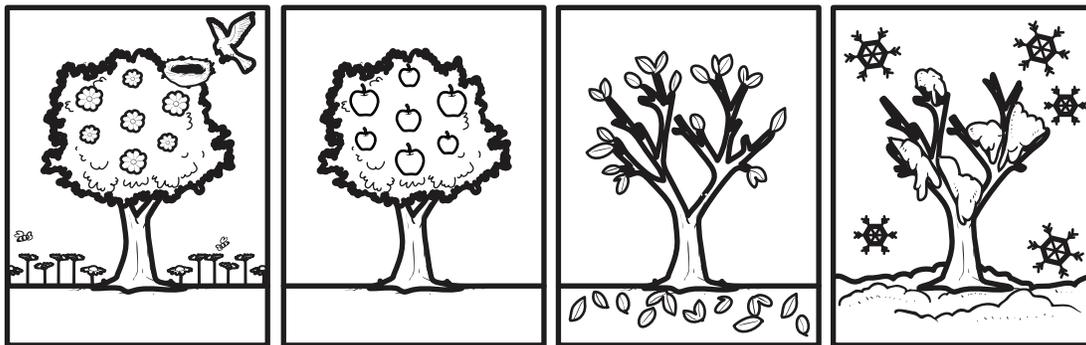
This is about the seasons.

There are four seasons.

Point to the diagram.

[For all students, read "This is a diagram of the four seasons. The first picture shows spring (point to Spring). The temperature warms and trees and flowers start to bloom. The second picture shows summer (point to Summer). There is more daylight and most trees are full of leaves. The third picture shows autumn (point to Autumn). The temperature cools and trees often lose their leaves. The fourth picture shows winter (point to Winter). There is less daylight and most trees have no leaves."]

The Four Seasons



Spring

Summer

Autumn

Winter

Which season is usually sunny and hot?

Point to and read each option to the student.

- A. Winter
- B. Summer

Item Information

ETS Item Code: TAS01S0218

Content: Science

Item ID: 1146

Grade: 06

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0607.6.6

AAT or UC: AAT

Standard Text: Use a diagram that shows the positions of the earth and sun to explain the four seasons.

AAT or UC Text: Identify an Earth-sun model, which demonstrates that Earth's tilt and orbit around the sun cause changes in seasons.

Category: The Universe

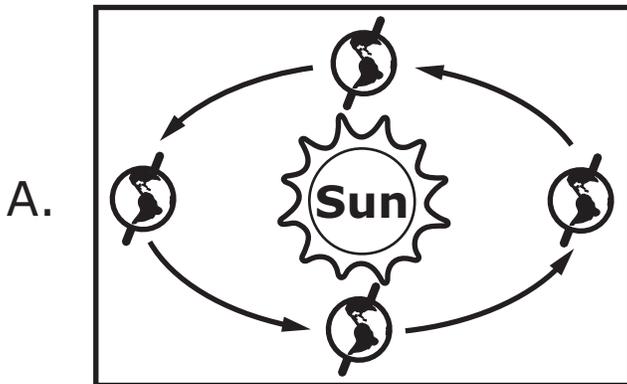
Correct Answer: A

This is about Earth's seasons.

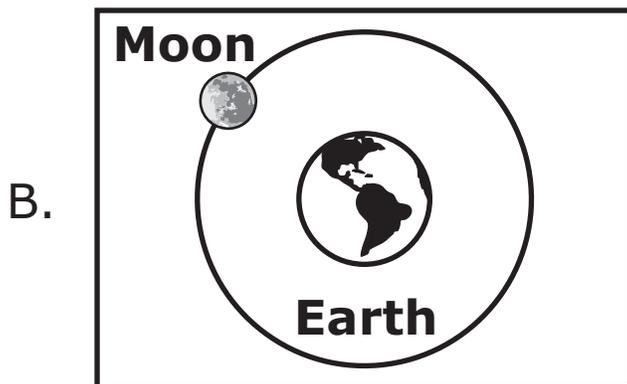
Which model shows why Earth has different seasons?

Point to each diagram.

[For all students, read "This is a diagram of Earth traveling around the sun while it is tilted on its axis (point to each Earth and then to the sun)."]

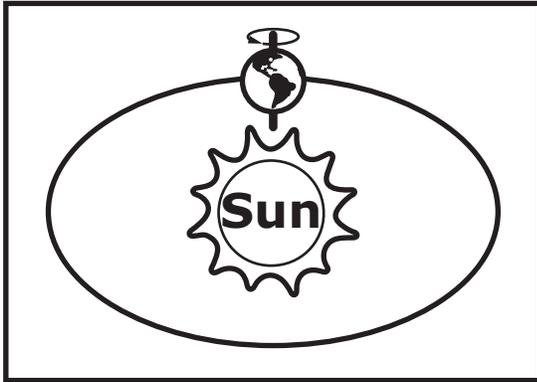


[For all students, read "This is a diagram of the moon traveling around Earth (point to Earth and then to the moon)."]



[For all students, read "This is a diagram of Earth as it spins and travels around the sun (point to Earth and then to the sun)."]

C.



Item Information

ETS Item Code: TAS01S0219

Content: Science

Item ID: 1147

Grade: 06

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0607.6.6

AAT or UC: AAT

Standard Text: Use a diagram that shows the positions of the earth and sun to explain the four seasons.

AAT or UC Text: Identify an Earth-sun model, which demonstrates that Earth's tilt and orbit around the sun cause changes in seasons.

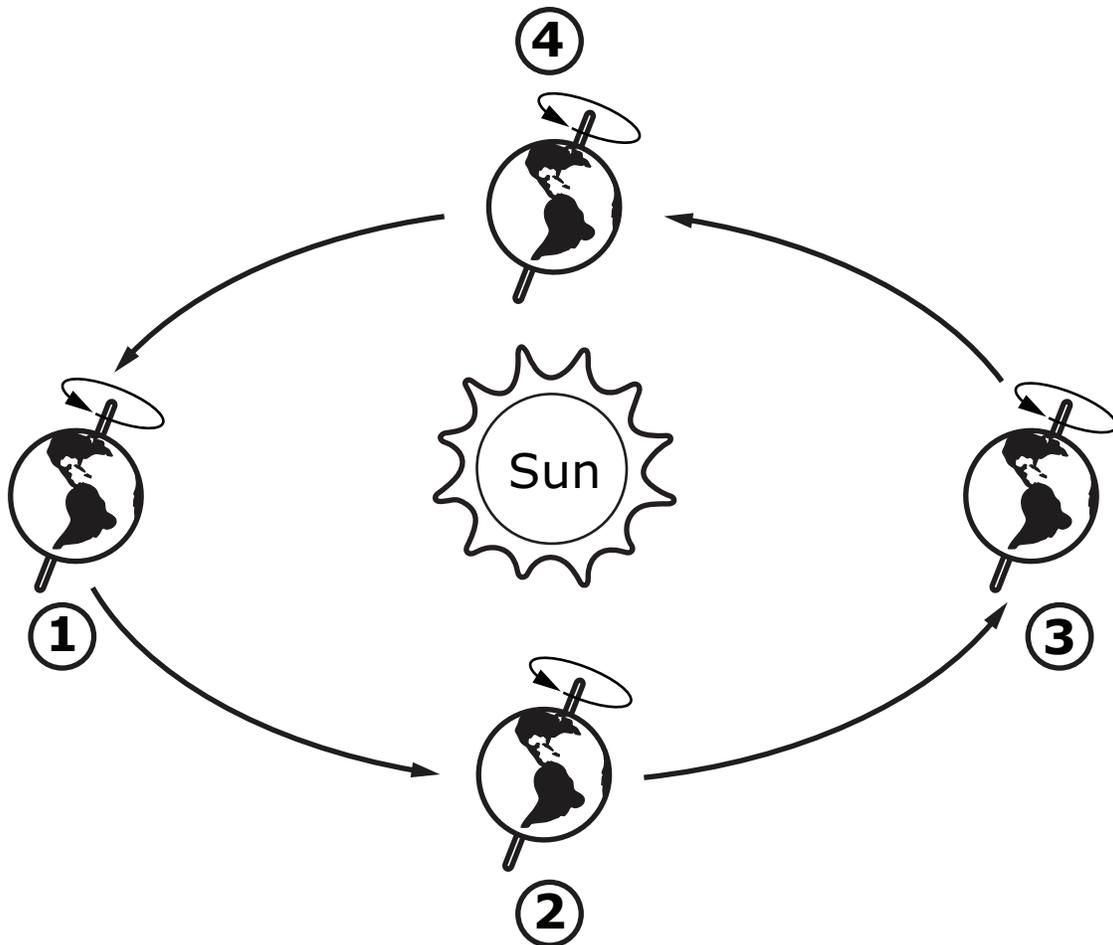
Category: The Universe

Correct Answer: A,B,B

This is about Earth's seasons.

Point to the diagram.

[For all students, read "This is a diagram of Earth and the sun. (Point to Earth #3.) This shows the tilt of Earth's axis. The top part of Earth, the Northern Hemisphere (point to the Northern Hemisphere), is tilted away from the sun. It is winter there."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Is position 1 showing summer in the Northern Hemisphere?

A. YES

B. NO

Is position 2 showing winter in the Northern Hemisphere?

A. YES

B. NO

Is position 4 showing autumn in the Northern Hemisphere?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0220

Content: Science

Item ID: 1148

Grade: 06

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0607.6.6

AAT or UC: AAT

Standard Text: Use a diagram that shows the positions of the earth and sun to explain the four seasons.

AAT or UC Text: Identify an Earth-sun model, which demonstrates that Earth's tilt and orbit around the sun cause changes in seasons.

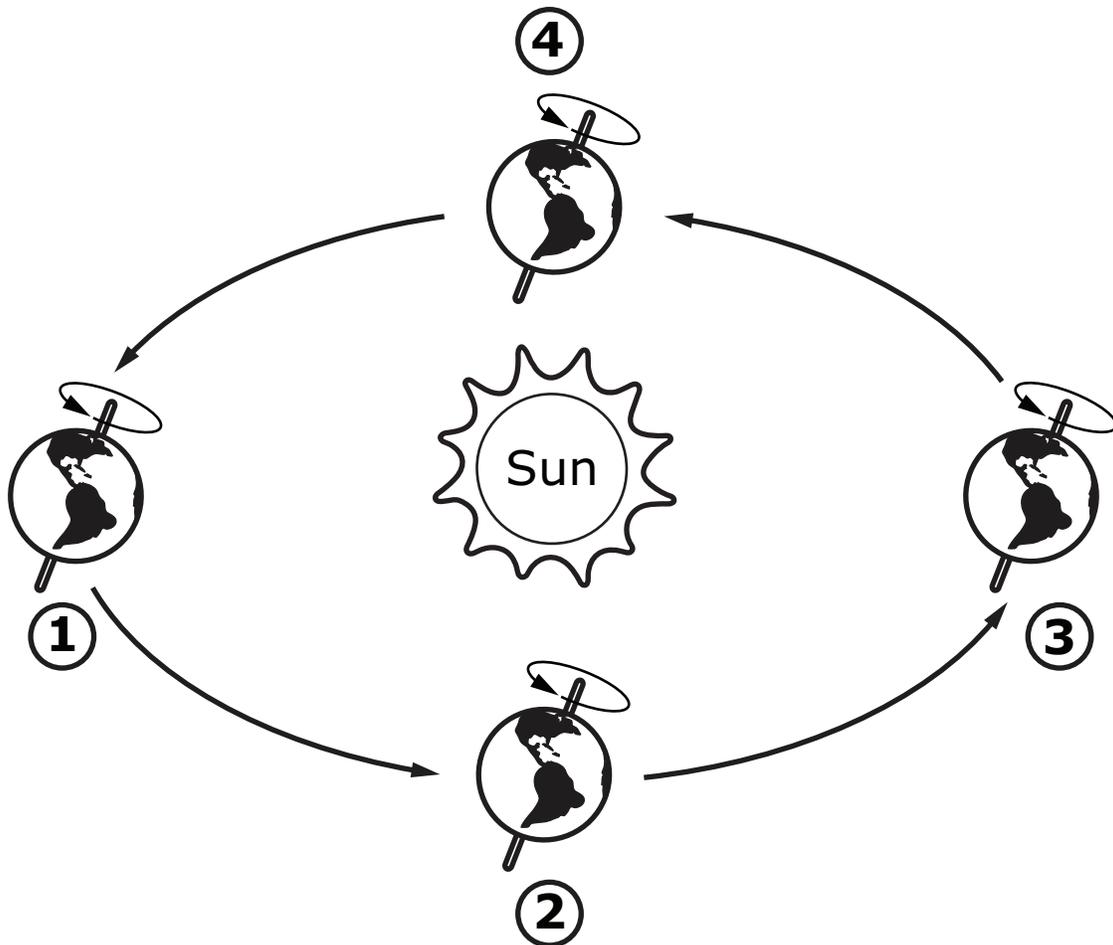
Category: The Universe

Correct Answer: B,B,B

This is about Earth's seasons.

Point to the diagram.

[For all students, read "This is a diagram of Earth and the sun. (Point to Earth #1.) This shows the tilt of Earth's axis. The top part of Earth, the Northern Hemisphere (point to the Northern Hemisphere), is tilted toward the sun. It is summer there."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Is position 2 showing summer in the Northern Hemisphere?

A. YES

B. NO

Is position 3 showing spring in the Northern Hemisphere?

A. YES

B. NO

Is position 4 showing winter in the Northern Hemisphere?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0221

Content: Science

Item ID: 1149

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.6.7

AAT or UC: UC

Standard Text: Explain the difference between a solar and a lunar eclipse.

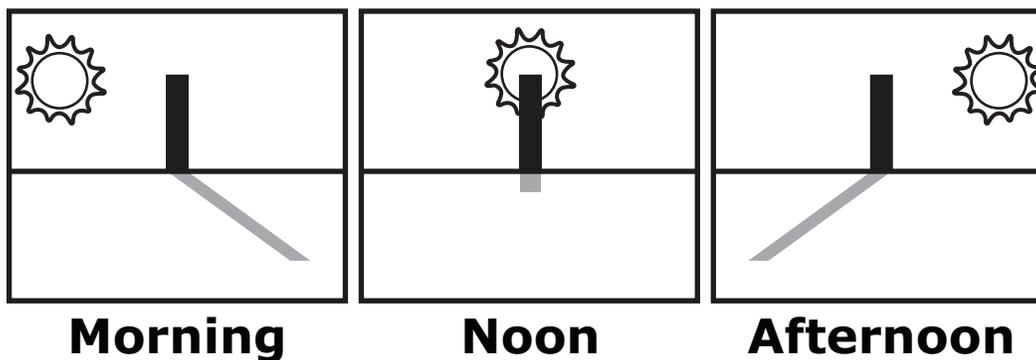
AAT or UC Text: Recognize the movement of an object's shadow on the ground at different times on a sunny day.

Category: The Universe

Correct Answer: B

This is about shadows.*Point to the diagram.*

[For all students, read "This is a diagram of shadows. (Point to 'Morning.') In the morning, the sun is on the left. Here is the stick (point to the morning stick). The shadow angles to the right. (Point to 'Noon.') At noon, the sun is in the middle. Here is the stick (point to the noon stick). The shadow is directly beneath the stick. (Point to 'Afternoon.') In the afternoon, the sun is on the right. Here is the stick (point to the afternoon stick). The shadow angles to the left."*]*



What causes the shadow to change?

Point to and read each option to the student.

- A. the position of the stick
- B. the position of the sun

Item Information

ETS Item Code: TAS01S0222

Item ID: 1150

DOK Level: 3

Level: 2

Standard Code: 0607.6.7

Standard Text: Explain the difference between a solar and a lunar eclipse.

AAT or UC Text: Recognize a solar eclipse as the result of the moon casting a shadow over Earth.

Category: The Universe

Correct Answer: B

Content: Science

Grade: 06

Item Type: SR

Points: 1

AAT or UC: AAT

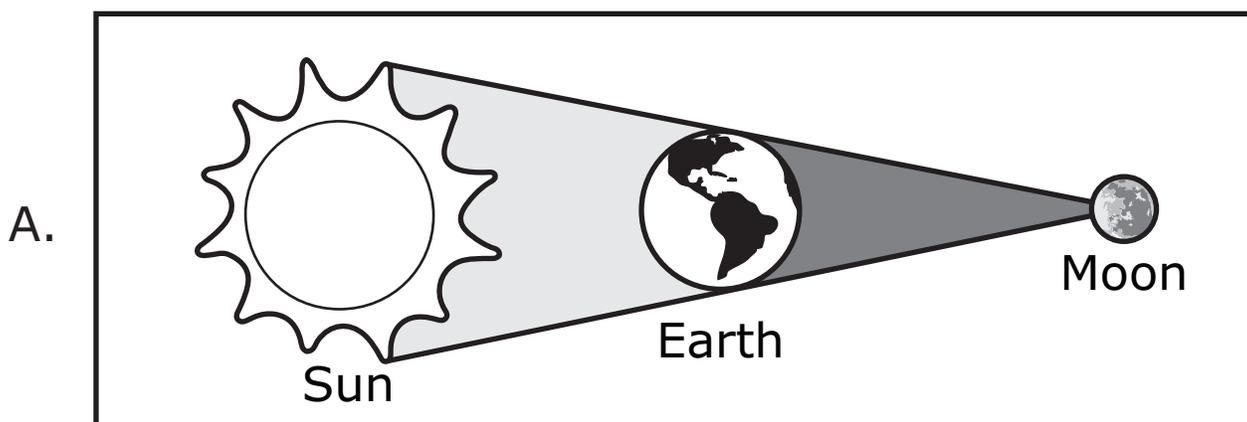
This is about a solar eclipse.

A solar eclipse happens when the moon causes a shadow on Earth.

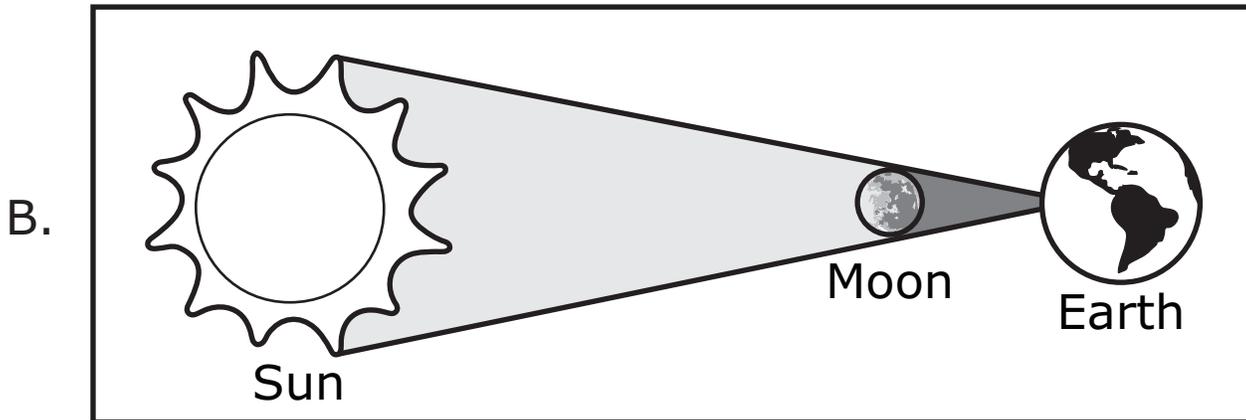
Which of these diagrams shows a solar eclipse?

Point to and read each diagram to the student.

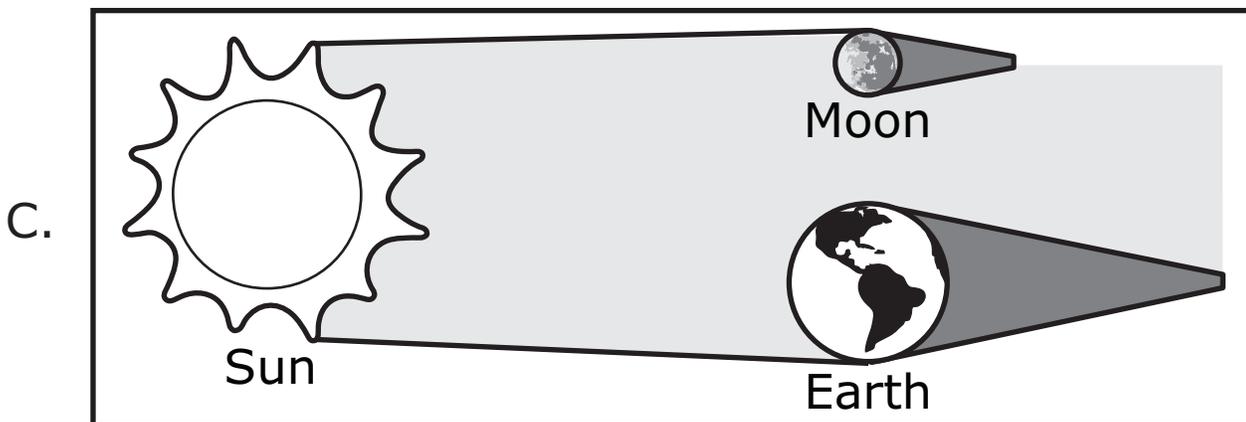
[For students with visual impairment, read "This diagram shows the sun, Earth, and the moon lined up. (Point to Earth.) Earth passes between the sun (point to the sun) and the moon (point to the moon)."]



[For students with visual impairment, read "This diagram shows the sun, the moon, and Earth lined up. (Point to the moon.) The moon passes between the sun (point to the sun) and Earth (point to Earth)."]



[For students with visual impairment, read "This diagram shows the sun, the moon, and Earth. (Point to the moon.) The moon lines up with Earth (point to Earth). Shadows are created (point to the two shadows)."]



Item Information

ETS Item Code: TAS01S0223

Item ID: 1151

DOK Level: 4

Level: 3a

Standard Code: 0607.6.7

Standard Text: Explain the difference between a solar and a lunar eclipse.

AAT or UC Text: Recognize a solar eclipse as the result of the moon casting a shadow over Earth.

Category: The Universe

Correct Answer: A,B,B

Content: Science

Grade: 06

Item Type: MP

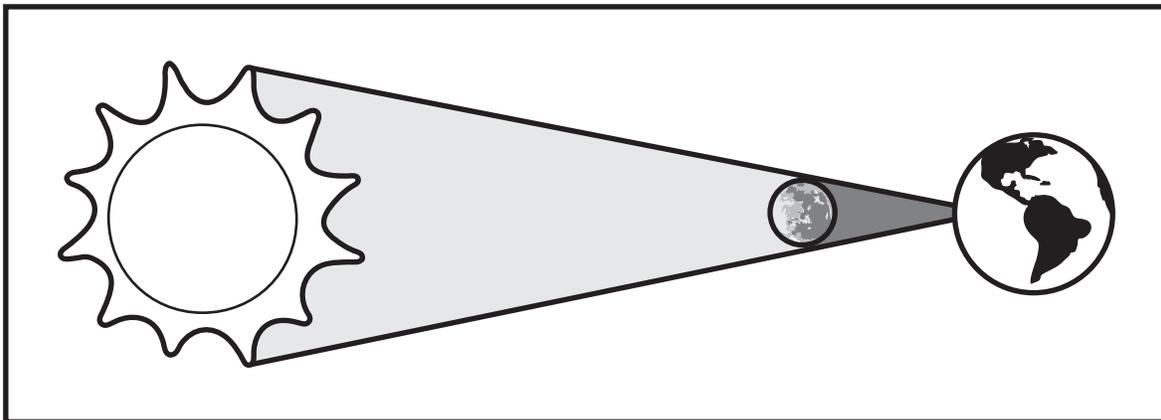
Points: 3

AAT or UC: AAT

This is about a solar eclipse.

Point to the diagram.

[For all students, read "This is a diagram of a solar eclipse. The diagram shows the sun, the moon, and Earth lined up. (Point to the moon.) The moon passes between the sun (point to the sun) and Earth (point to Earth)."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Does the moon cause a shadow on Earth?

A. YES

B. NO

Does the moon stop traveling along its orbit during an eclipse?

A. YES

B. NO

Is Earth the source of light for the moon and the sun?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0224

Item ID: 1152

DOK Level: 4

Level: 3b

Standard Code: 0607.6.7

Standard Text: Explain the difference between a solar and a lunar eclipse.

AAT or UC Text: Recognize a solar eclipse as the result of the moon casting a shadow over Earth.

Category: The Universe

Correct Answer: B,A,B

Content: Science

Grade: 06

Item Type: MP

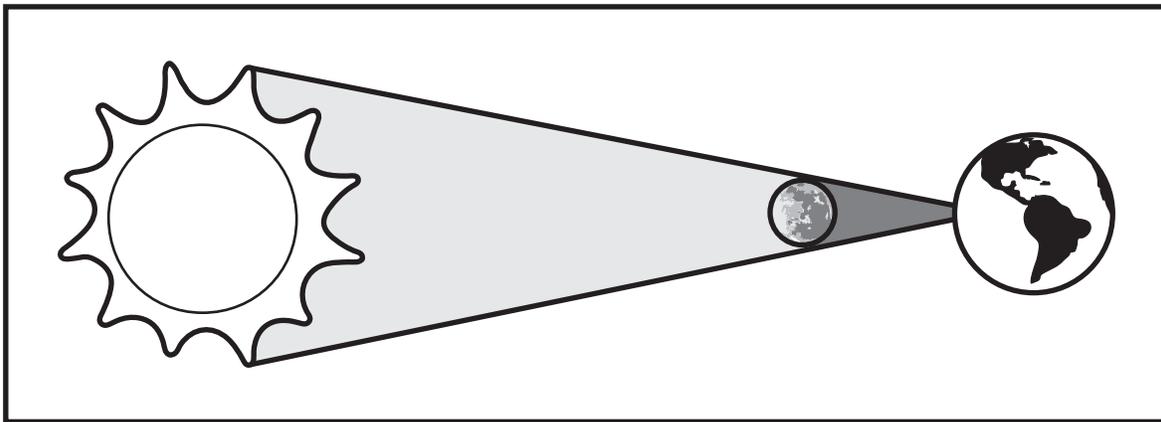
Points: 3

AAT or UC: AAT

This is about a solar eclipse.

Point to the diagram.

[For students with visual impairment, read "This is a diagram of a solar eclipse. The diagram shows the sun, the moon, and Earth lined up. (Point to the moon.) The moon passes between the sun (point to the sun) and Earth (point to Earth)."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Does Earth cause a shadow on the moon during a solar eclipse?

A. YES

B. NO

Is the sun the source of light for the moon and Earth?

A. YES

B. NO

Does Earth stop traveling along its orbit during a solar eclipse?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0225

Item ID: 1153

DOK Level: 2

Level: 1

Standard Code: 0607.8.2

Standard Text: Recognize the connection between the sun's energy and the wind.

AAT or UC Text: Recognize that warm air rises and cool air sinks.

Category: The Atmosphere

Correct Answer: B

Content: Science

Grade: 06

Item Type: SR

Points: 1

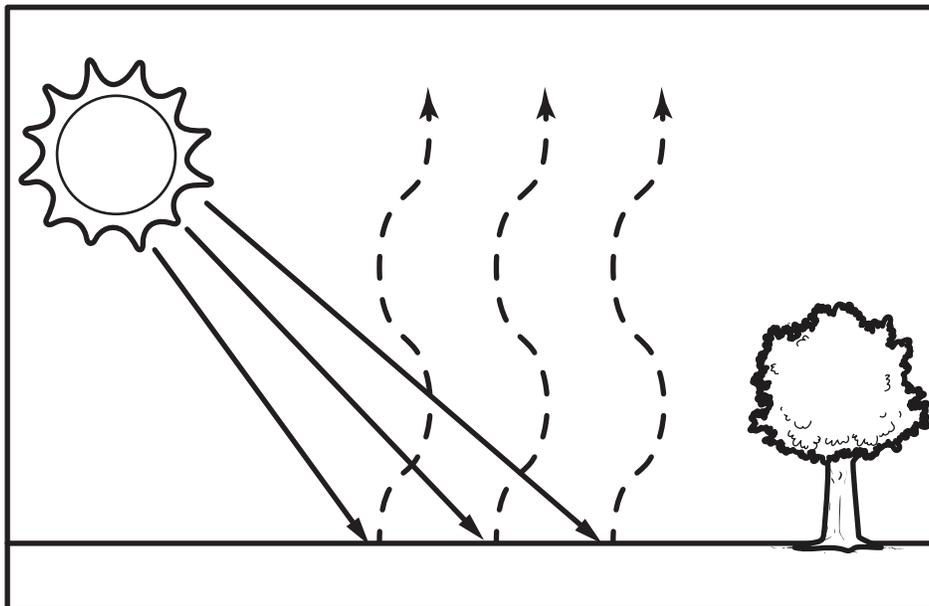
AAT or UC: UC

This is about the movement of warm air.

The sun's heat warms the land.

Point to the diagram.

[For all students, read "The diagram shows rays from the sun heating the land (point to the solid arrows). The dashed arrows show the direction of the warm air as the heat rises (point to the dashed arrows)."]



Which direction does warm air move?

Point to and read each option to the student.

- A. Warm air moves down.
- B. Warm air moves up.

Item Information

ETS Item Code: TAS01S0226

Item ID: 1154

DOK Level: 3

Level: 2

Standard Code: 0607.8.2

Standard Text: Recognize the connection between the sun's energy and the wind.

AAT or UC Text: Recognize that as the sun's energy warms the air over the land (expands and rises) the air over the ocean (cooler air) rushes in to take its place and is called wind (sea breeze).

Category: The Atmosphere

Correct Answer: C

Content: Science

Grade: 06

Item Type: SR

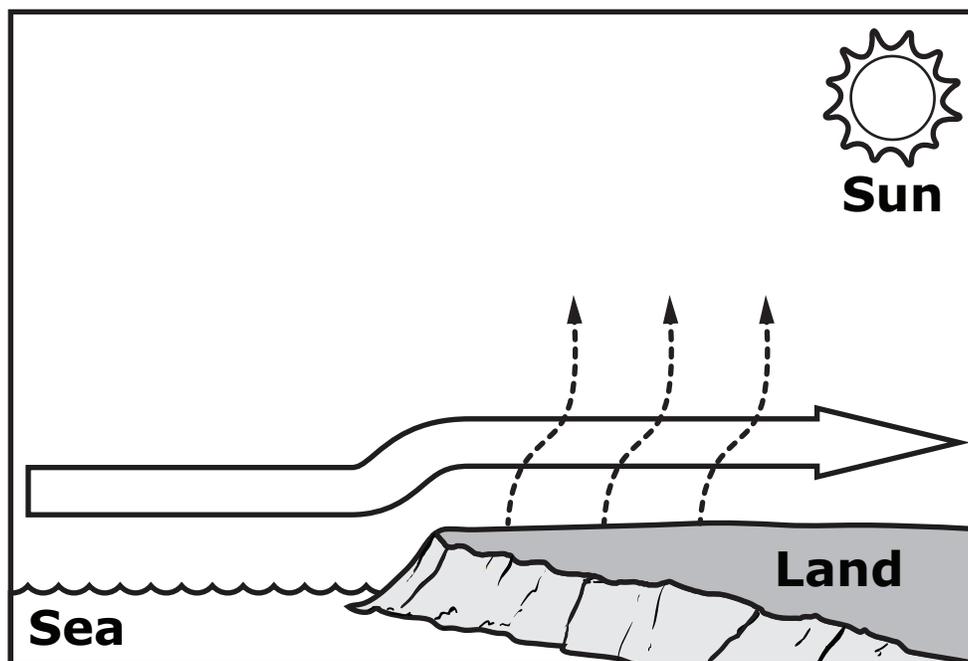
Points: 1

AAT or UC: AAT

This is about the movement of air over land.

Point to the diagram.

[For all students, read "This diagram shows the sun heating the land during the day. At night, the warm land heats the air above the land. (Point to the arrows pointing upward.) This air rises into the sky. Cooler air from above the sea moves across the land in place of the warm air (point to the arrow moving from the sea to the land)."]



Which statement describes wind in the diagram?

Point to and read each option to the student.

- A. the sun heating the air above the land
- B. the warm air rising above the land
- C. the cool air moving across the land

Item Information

ETS Item Code: TAS01S0227

Content: Science

Item ID: 1155

Grade: 06

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0607.8.2

AAT or UC: AAT

Standard Text: Recognize the connection between the sun's energy and the wind.

AAT or UC Text: Recognize that as the sun's energy warms the air over the land (expands and rises) the air over the ocean (cooler air) rushes in to take its place and is called wind (sea breeze).

Category: The Atmosphere

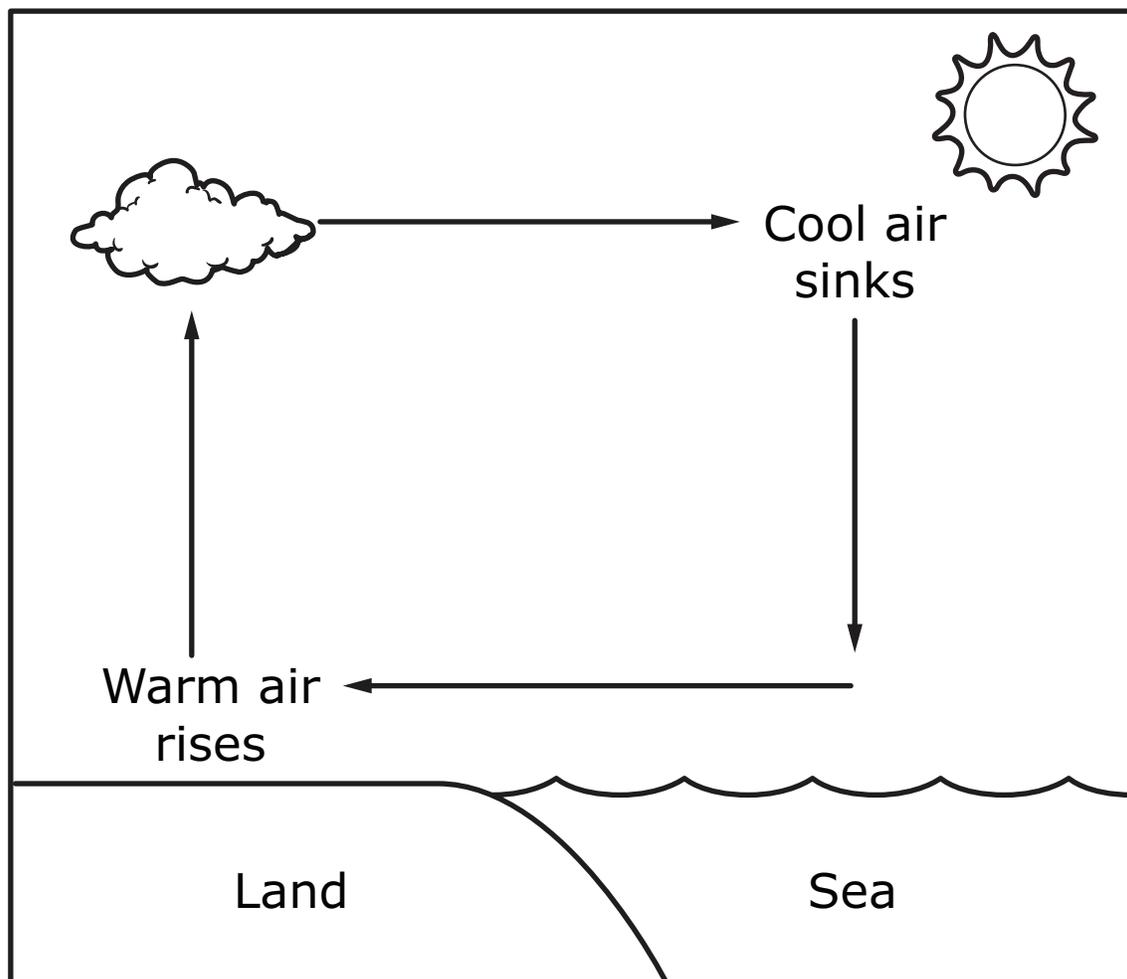
Correct Answer: A,A,B

This is about the movement of air.

Sea breezes occur during the day.

Point to the diagram.

[For all students, read "This shows a diagram of the air movement during the day. Warm air over the land rises (point to the upward arrow). Cool air sinks over the sea (point to the downward arrow). As the warm air rises, cool air from over the sea moves onto land (point to and indicate the clockwise motion of the arrows)."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Do clouds form after warm air rises?

A. YES

B. NO

Do sea breezes keep the land near the edge of the water cool in the summer?

A. YES

B. NO

Do sea breezes blow from the land to the sea?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0228

Content: Science

Item ID: 1156

Grade: 06

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0607.8.2

AAT or UC: AAT

Standard Text: Recognize the connection between the sun's energy and the wind.

AAT or UC Text: Recognize that as the sun's energy warms the air over the land (expands and rises) the air over the ocean (cooler air) rushes in to take its place and is called wind (sea breeze).

Category: The Atmosphere

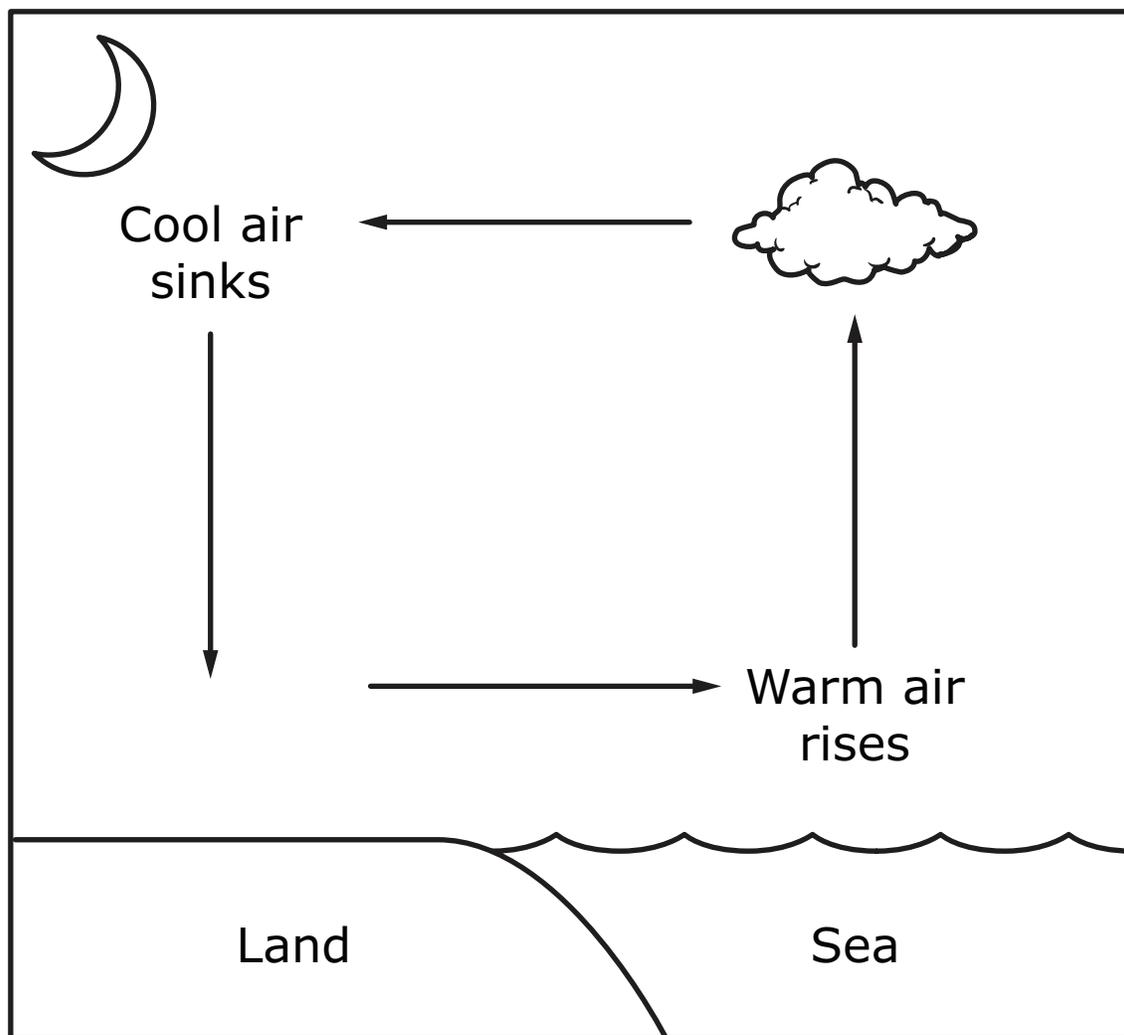
Correct Answer: B,B,A

This is about the movement of air.

Land breezes occur during the night and the early morning.

Point to the diagram.

[For all students, read "This diagram shows air movement at night. Warm air over the sea rises (point to the upward arrow). Cool air sinks over the land (point to the downward arrow). As the warm air rises, cool air from the land moves over the sea (point to and indicate the counterclockwise motion of the arrows)."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Do clouds form after cool air sinks?

A. YES

B. NO

Do land breezes keep the land near the edge of the water warm?

A. YES

B. NO

Do land breezes blow from the land to the sea?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0229

Content: Science

Item ID: 1157

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.8.4

AAT or UC: UC

Standard Text: Interpret meteorological data to make predictions about the weather.

AAT or UC Text: Interpret basic weather information (e.g., map) to identify current weather conditions.

Category: The Atmosphere

Correct Answer: B

This is about weather.

Point to the weather forecast.

[For all students, read "This is a weather forecast for Nashville. Each day shows a picture of the weather and the high temperature. (Point to Monday.) On Monday, it will be sunny and the high temperature will be 92 degrees. (Point to Tuesday.) On Tuesday, there will be heavy clouds and rain. The high temperature will be 90 degrees."]

Weather Forecast

MON	TUE	WED
		
92	90	85

Point to "Wednesday" and read the question.

Which of these describes the weather for Wednesday?

Point to and read each option to the student.

- A. heavy rain
- B. mostly cloudy

Item Information

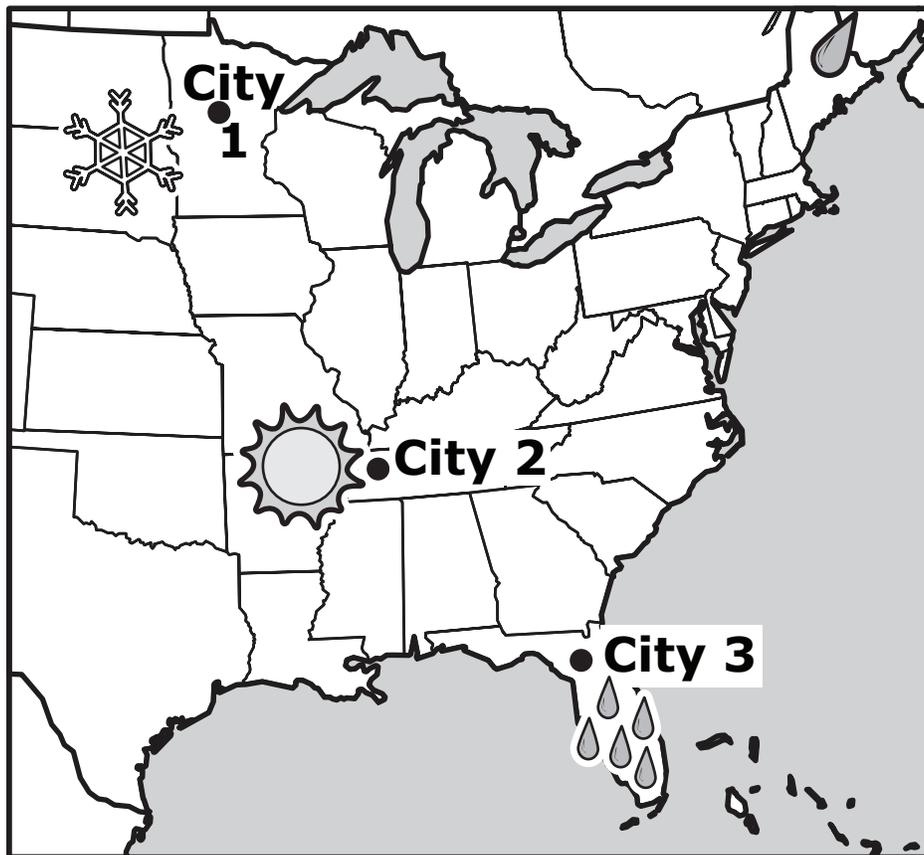
ETS Item Code: TAS01S0230	Content: Science
Item ID: 1158	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.8.4	AAT or UC: AAT
Standard Text: Interpret meteorological data to make predictions about the weather.	
AAT or UC Text: Interpret weather information (e.g., map) to make predictions about future conditions (e.g., precipitation, temperature).	
Category: The Atmosphere	
Correct Answer: A	

This is about predicting the weather.

Point to the weather map.

[For students with visual impairment, read "This map shows weather predictions for three different cities. This is City 1 (point to City 1). This is City 2 (point to City 2). This is City 3 (point to City 3)."]

Weather Map



Use the weather map to answer the question.

Point to and read each option to the student.

Which city will most likely experience cold temperatures and snow?

- A. City 1
- B. City 2
- C. City 3

Item Information

ETS Item Code: TAS01S0231
Item ID: 1159
DOK Level: 4
Level: 3a
Standard Code: 0607.8.4
Standard Text: Interpret meteorological data to make predictions about the weather.
AAT or UC Text: Interpret weather information (e.g., map) to make predictions about future conditions (e.g., precipitation, temperature).
Category: The Atmosphere
Correct Answer: B,A,B

Content: Science
Grade: 06
Item Type: MP
Points: 3
AAT or UC: AAT

This is about predicting the weather.

Point to the weather forecast.

[For all students, read "This is a weather forecast in summer. Each day shows a picture of the weather and the high temperature. (Point to Tuesday.) On Tuesday, the weather will be mostly sunny. There will be storms on Wednesday and Thursday (point to Wednesday and Thursday). The weather will start clearing on Friday (point to Friday, then to Saturday). The weather will be sunny on Sunday (point to Sunday)."]

Weather Forecast

TUE	WED	THU	FRI	SAT	SUN
					
95	90	87	85	85	86

Use the weather forecast to answer these questions.

Point to and read each question to the student.

Will the rain start on
Tuesday?

A. YES

B. NO

Will there be more clouds
in the sky on Friday than
on Sunday?

A. YES

B. NO

Will there be rain on
Saturday?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0232	Content: Science
Item ID: 1160	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.8.4	AAT or UC: AAT
Standard Text: Interpret meteorological data to make predictions about the weather.	
AAT or UC Text: Interpret weather information (e.g., map) to make predictions about future conditions (e.g., precipitation, temperature).	
Category: The Atmosphere	
Correct Answer: B,A,A	

This is about predicting the weather.

Point to the weather forecast.

[For all students, read "This is a weather forecast in summer. Each day shows a picture of the weather and the high temperature. (Point to Tuesday.) On Tuesday, the weather will be overcast. There will be storms on Thursday (point to Thursday). The weather will begin to clear on Friday (point to Friday, then to Saturday, then to Sunday, then point to Monday)."]

Weather Forecast

TUE	WED	THU	FRI	SAT	SUN	MON
						
72	79	74	69	59	62	65

Use the weather forecast to answer these questions.

Point to and read each question to the student.

Is it going to rain on
Sunday?

A. YES

B. NO

Will it be warmer on
Monday than on Saturday?

A. YES

B. NO

Will there be clouds in the
sky on Wednesday?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0233

Content: Science

Item ID: 1120

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.10.2

AAT or UC: UC

Standard Text: Interpret the relationship between potential and kinetic energy.

AAT or UC Text: Identify the relationship between motion and energy (i.e., the faster a given object is moving, the more energy it possesses).

Category: Energy, Forces in Nature

Correct Answer: A

This is about motion and energy.

Which of these objects has more energy?

Point to and read each option to the student.

- A. a baseball thrown fast
- B. a baseball thrown slowly

Item Information

ETS Item Code: TAS01S0234

Content: Science

Item ID: 1121

Grade: 06

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0607.10.2

AAT or UC: AAT

Standard Text: Interpret the relationship between potential and kinetic energy.

AAT or UC Text: Identify potential energy (stored energy) and kinetic energy (motion of objects), as different types of energy.

Category: Energy, Forces in Nature

Correct Answer: B

This is about energy.

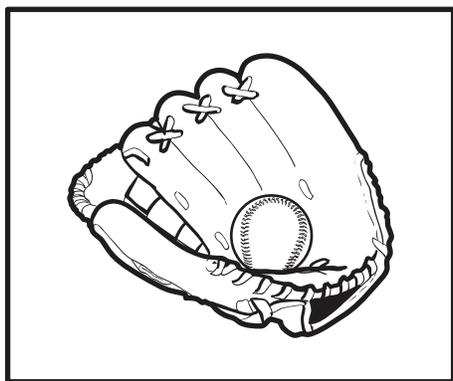
Kinetic energy is the energy of motion.

Which object has kinetic energy?

Point to and read each option to the student.

[For students with visual impairment, read "This is a picture of a baseball in a ball glove."]

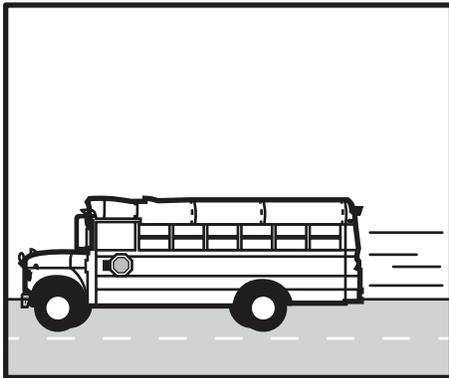
A.



a ball in a
ball glove

[For students with visual impairment, read "This is a picture of a bus traveling to school."]

B.



a school bus on
its way to school

[For students with visual impairment, read "This is a picture of a child sitting by a window."]

C.



a child sitting
by a window

Item Information

ETS Item Code: TAS01S0235	Content: Science
Item ID: 1122	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.10.2	AAT or UC: AAT
Standard Text: Interpret the relationship between potential and kinetic energy.	
AAT or UC Text: Identify potential energy (stored energy) and kinetic energy (motion of objects), as different types of energy.	
Category: Energy, Forces in Nature	
Correct Answer: B,A,A	

This is about potential and kinetic energy.

Potential energy is stored energy. All objects that are at rest have potential energy.

Kinetic energy is the energy of motion. When an object moves, it has kinetic energy.

Classify these objects as having potential or kinetic energy.

Point to and read each statement to the student.

an airplane flying across the sky

A. potential B. kinetic

a book resting on top of a desk

A. potential B. kinetic

a boy standing on a football field

A. potential B. kinetic

Item Information

ETS Item Code: TAS01S0236	Content: Science
Item ID: 1123	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.10.2	AAT or UC: AAT
Standard Text: Interpret the relationship between potential and kinetic energy.	
AAT or UC Text: Identify potential energy (stored energy) and kinetic energy (motion of objects), as different types of energy.	
Category: Energy, Forces in Nature	
Correct Answer: B,A,B	

This is about potential and kinetic energy.

Potential energy is stored energy. All objects that are at rest have potential energy.

Kinetic energy is the energy of motion. When an object moves, it has kinetic energy.

Classify these objects as having potential or kinetic energy.

Point to and read each statement to the student.

a piece of paper being thrown into a trash can A. potential B. kinetic

a car waiting at a traffic light A. potential B. kinetic

a girl jumping off a diving board A. potential B. kinetic

Item Information

ETS Item Code: TAS01S0582	Content: Science
Item ID: 2029	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: B	

This is about energy being transformed.

Energy comes in many different forms. Energy can change from one form to another.

Chemical energy is stored in a battery. Which form of energy is produced when a battery-powered flashlight is turned on?

Point to and read each option to the student.

- A. wind energy
- B. light energy
- C. sound energy

Item Information

ETS Item Code: TAS01S0583

Item ID: 2030

DOK Level: 4

Level: 3a

Standard Code: 0607.10.3

Standard Text: Recognize that energy can be transformed from one type to another.

AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).

Category: Energy, Forces in Nature

Correct Answer: A,B,B

Content: Science

Grade: 06

Item Type: MP

Points: 3

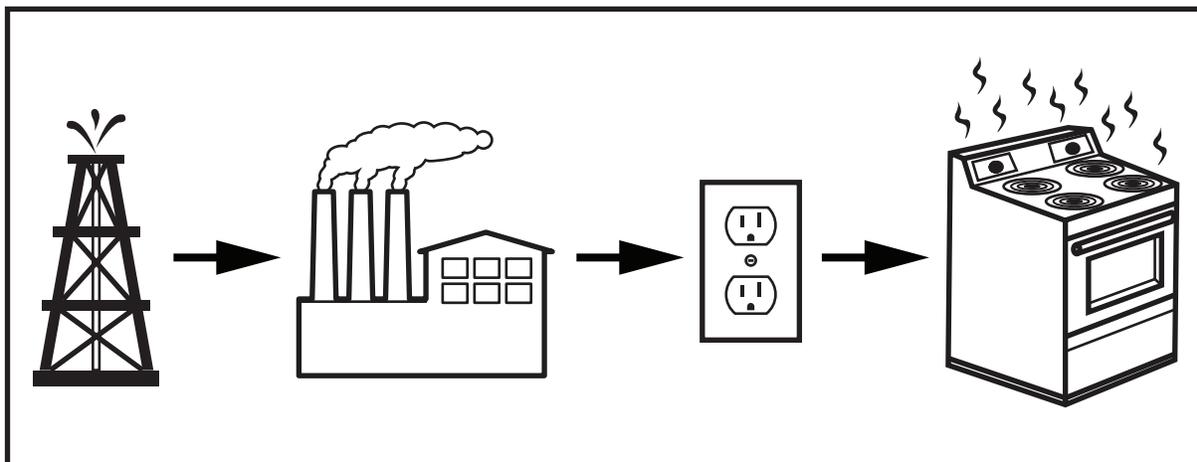
AAT or UC: AAT

This is about energy being transformed.

Energy comes in many different forms. Energy can change from one form to another.

Point to the diagram.

[For all students, read "This is a diagram showing how energy changes. This is an oil tower (point to the oil tower) that collects oil that has been drilled from deep below the ground. At the power plant (point to the power plant) the oil is used and transformed into electricity (point to the outlet). Electricity powers an appliance, like a stove (point to the stove)."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Does the stove turn
electricity into thermal
energy?

A. YES

B. NO

Is the power plant the
original source of energy?

A. YES

B. NO

Does the outlet use energy
directly from the oil tower?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0584	Content: Science
Item ID: 2031	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: A,B,A	

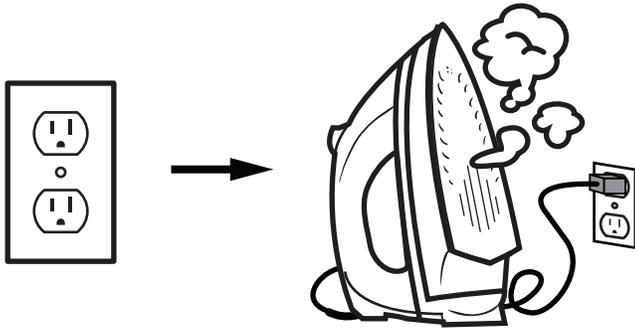
This is about energy being transformed.

Energy comes in many different forms. Energy can change from one form to another.

Use the information to answer the questions.

Point to and read each question to the student.

[For students with visual impairment, read "This picture shows an outlet on the left with an arrow pointing to an iron on the right."]

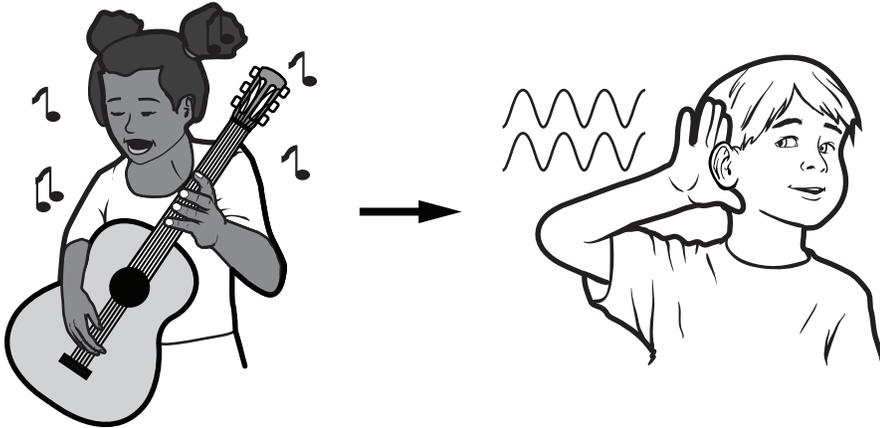


Does the iron transform electrical energy into thermal energy?

A. YES

B. NO

[For students with visual impairment, read "This picture shows a girl singing and playing the guitar on the left. There is an arrow pointing to a boy listening to the music on the right."]



Is light energy transformed into sound energy when the girl plays the guitar?

A. YES

B. NO

Is mechanical energy transformed into sound energy when the girl sings?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0241

Content: Science

Item ID: 1128

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.10.4

AAT or UC: UC

Standard Text: Explain the Law of Conservation of Energy using data from a variety of energy transformations.

AAT or UC Text: Identify real-world outcomes of the transfer of potential to kinetic energy (e.g., When a rubber band is stretched and waiting to be released).

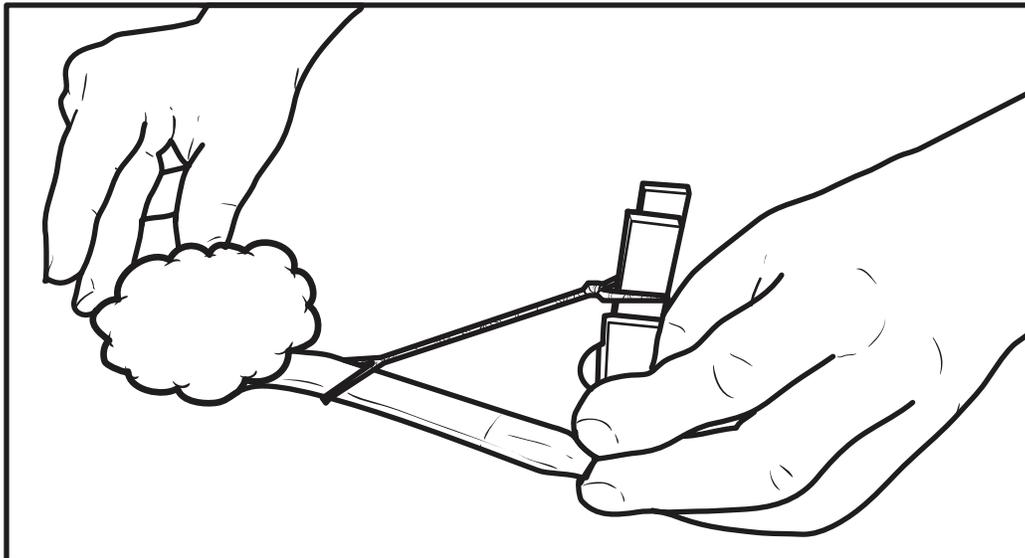
Category: Energy, Forces in Nature

Correct Answer: A

This is about energy and movement.

Point to the diagram.

[For all students, read "This diagram shows a student-made launcher. The launcher is made from a clothespin (point to the hand holding the clothespin), a plastic spoon (point to the arm of the spoon), and a rubber band (point to the rubber band). The student places a cotton ball on the end of the spoon (point to the cotton ball). The student pushes the spoon down."]



What will happen to the cotton ball when the student lets go of the spoon?

Point to and read each option to the student.

- A. The cotton ball will move through the air.
- B. The cotton ball will stay on the spoon.

Item Information

ETS Item Code: TAS01S0242	Content: Science
Item ID: 1129	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.10.4	AAT or UC: AAT
Standard Text: Explain the Law of Conservation of Energy using data from a variety of energy transformations.	
AAT or UC Text: Use the Law of Conservation of Energy to identify the relationship of kinetic to potential energy.	
Category: Energy, Forces in Nature	
Correct Answer: A	

This is about energy.

Potential energy is stored energy. All objects that are at rest have potential energy.

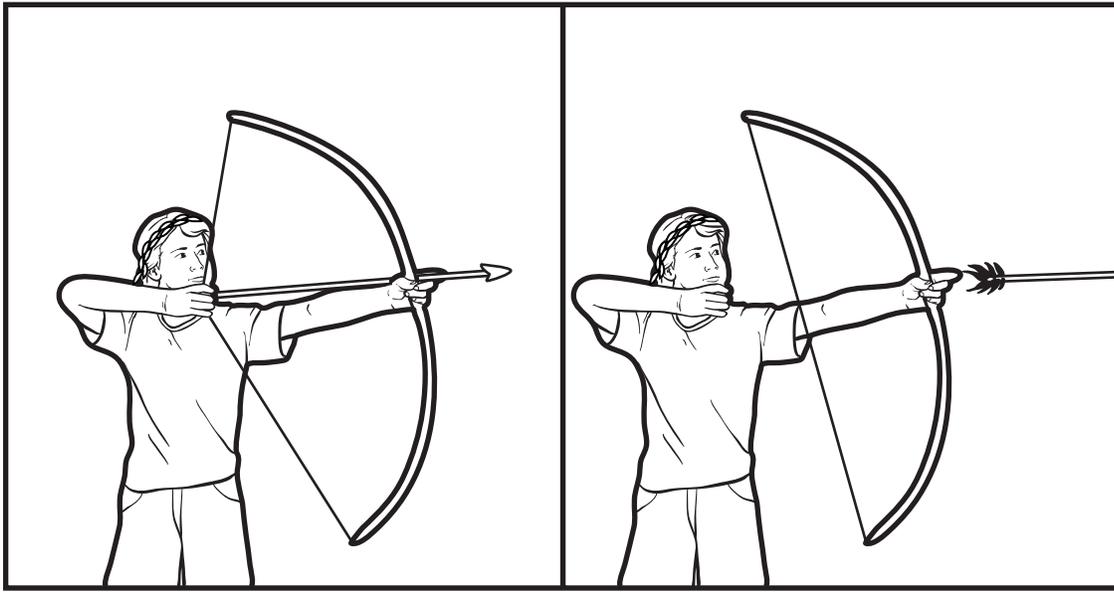
Kinetic energy is the energy of motion. When an object moves, it has kinetic energy.

Which of these shows potential energy changing to kinetic energy?

Point to each diagram.

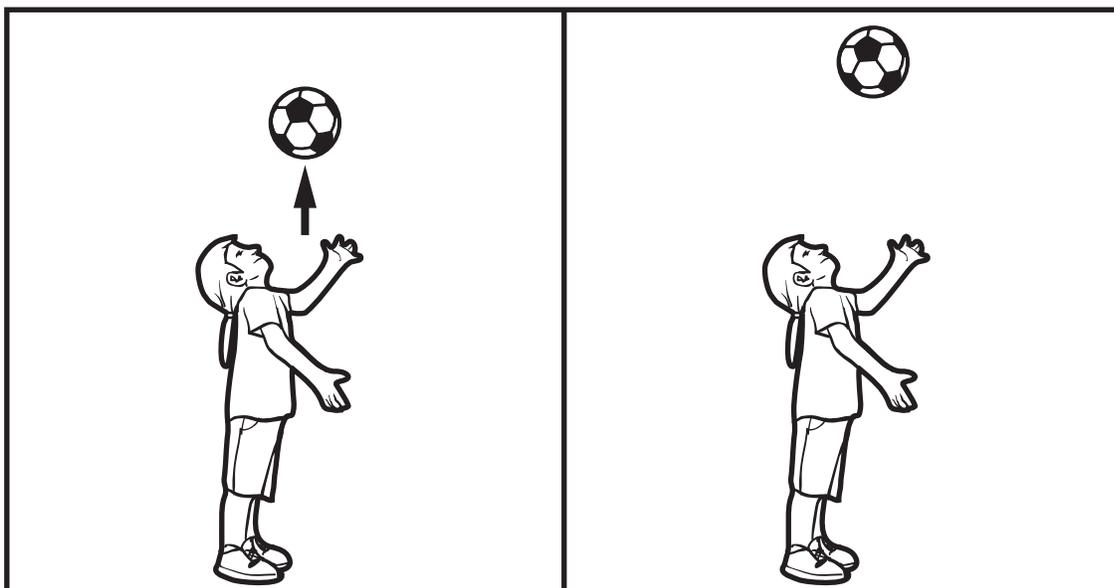
[For students with visual impairment, read "The first picture shows a person holding an arrow in a stretched bow (point to the first picture). The second picture shows the person releasing the arrow (point to the second picture)."]

A.



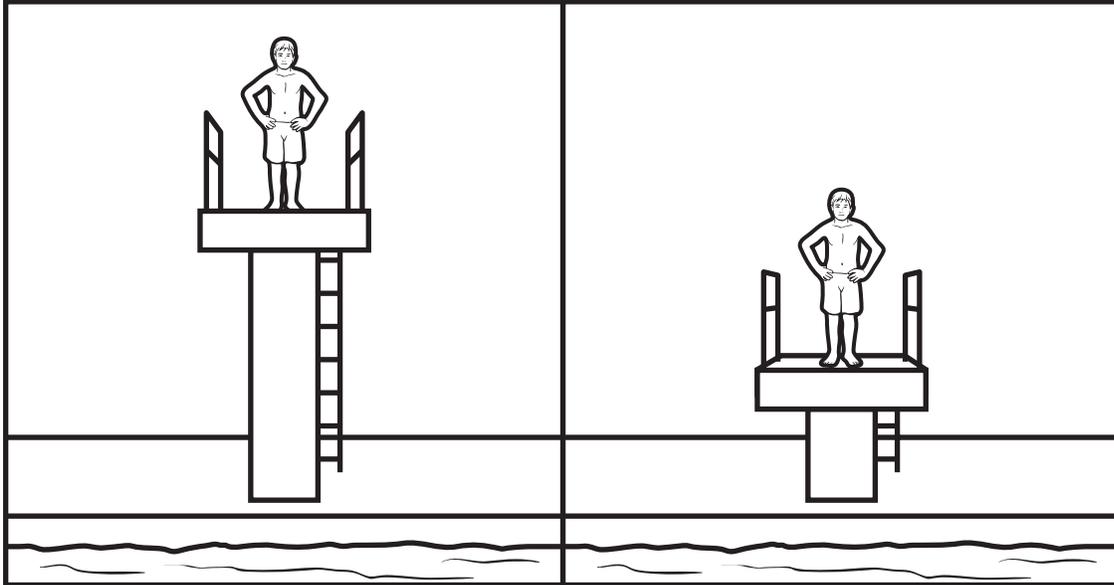
[For students with visual impairment, read "The first picture shows a ball that has been tossed into the air (point to the first picture). The second picture shows the ball at the highest point before it falls (point to the second picture)."]

B.



[For students with visual impairment, read "The first picture shows a person standing on a tall diving board (point to the first picture). The second picture shows a person standing on a lower diving board (point to the second picture)."]

C.



Item Information

ETS Item Code: TAS01S0243

Content: Science

Item ID: 1130

Grade: 06

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0607.10.4

AAT or UC: AAT

Standard Text: Explain the Law of Conservation of Energy using data from a variety of energy transformations.

AAT or UC Text: Use the Law of Conservation of Energy to identify the relationship of kinetic to potential energy.

Category: Energy, Forces in Nature

Correct Answer: A,A,A

This is about energy.

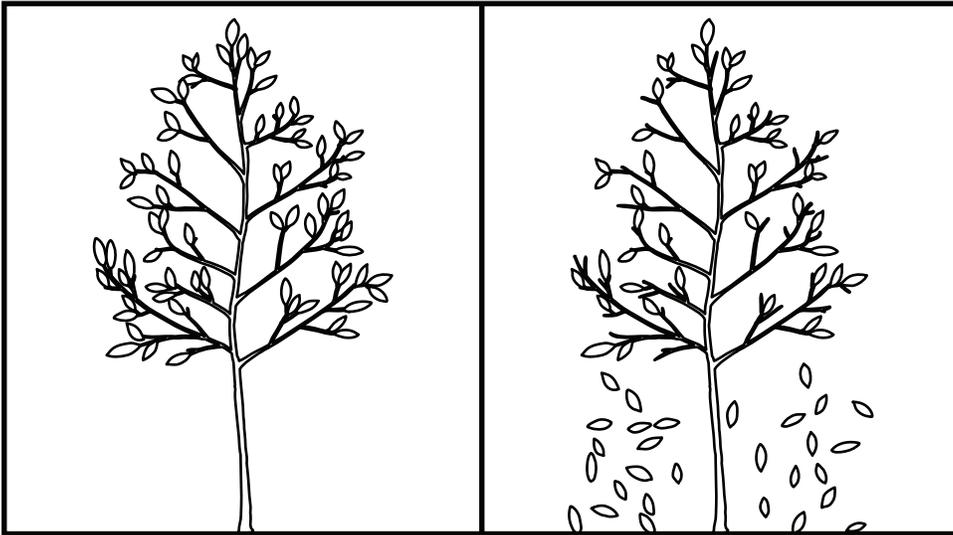
Potential energy is stored energy. All objects that are at rest have potential energy.

Kinetic energy is the energy of motion. When an object moves, it has kinetic energy.

Use this information to answer the questions.

Point to and read each question to the student.

[For all students, read "This diagram shows leaves attached to tree branches (point to the first picture). These are leaves falling to the ground (point to the second picture)."]

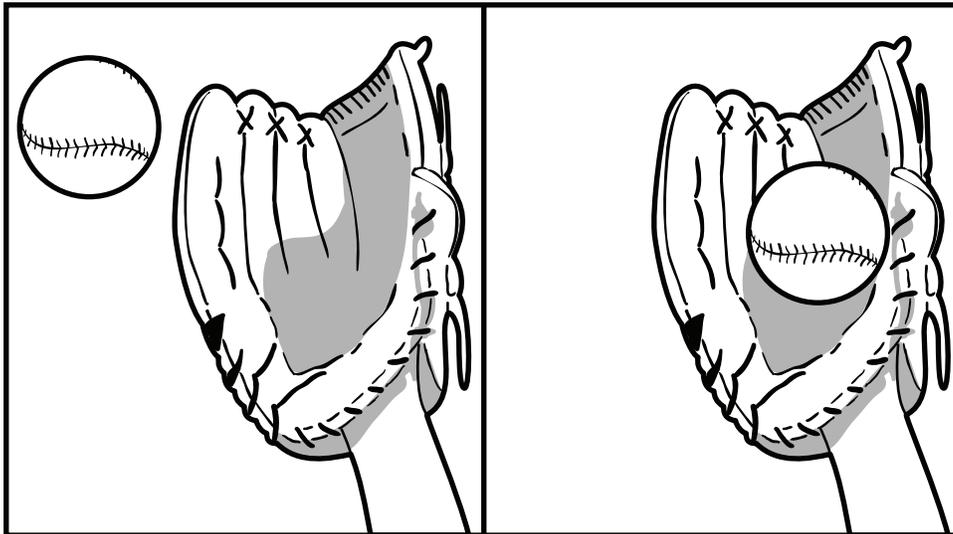


Do these pictures show potential energy becoming kinetic energy?

A. YES

B. NO

For all students, read "This diagram shows a ball traveling through the air toward a glove (point to the first picture). This is the ball after it has been caught (point to the second picture)."]



Do these pictures show kinetic energy becoming potential energy?

A. YES

B. NO

Does energy change form when the ball is caught?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0244	Content: Science
Item ID: 1131	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.10.4	AAT or UC: AAT
Standard Text: Explain the Law of Conservation of Energy using data from a variety of energy transformations.	
AAT or UC Text: Use the Law of Conservation of Energy to identify the relationship of kinetic to potential energy.	
Category: Energy, Forces in Nature	
Correct Answer: B,B,B	

This is about energy.

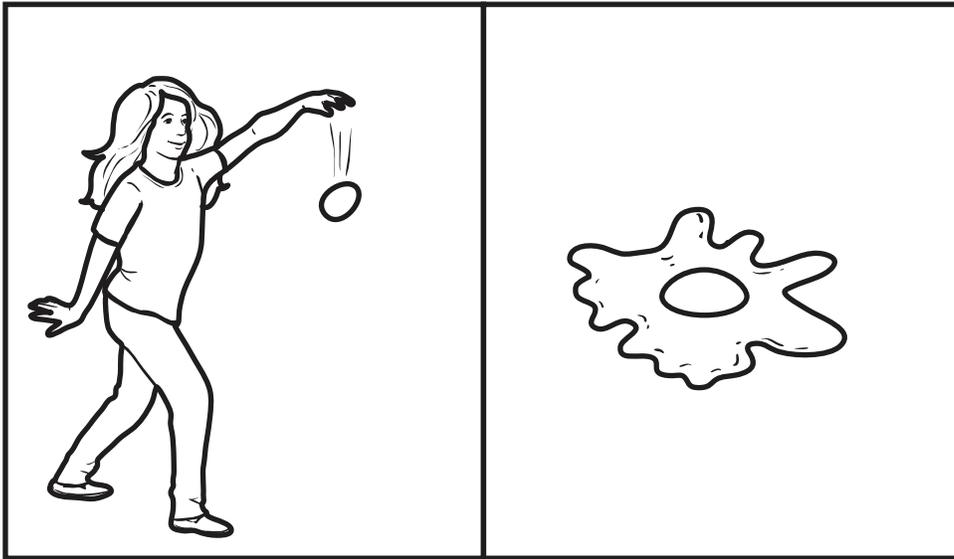
Potential energy is stored energy. All objects that are at rest have potential energy.

Kinetic energy is the energy of motion. When an object moves, it has kinetic energy.

Use this information to answer the questions.

Point to and read each question to the student.

[For all students, read "This diagram shows a student dropping an egg (point to the first picture). This is the egg after it has been dropped and broken open (point to the second picture)."]

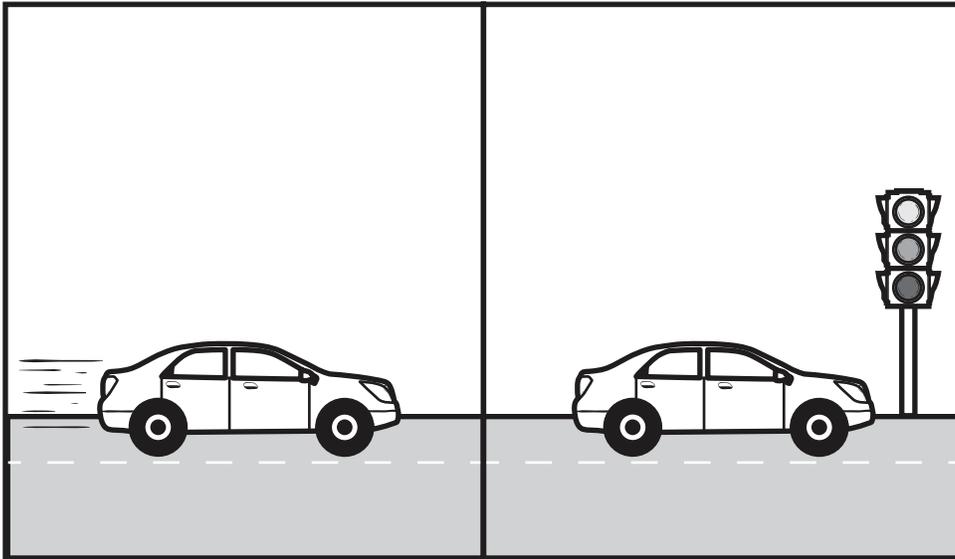


Do these pictures show potential energy becoming kinetic energy?

A. YES

B. NO

[For all students, read "This diagram shows a car traveling down a road (point to the first picture). This picture shows the car once it has stopped at a traffic light (point to the second picture)."]



Do these pictures show potential energy becoming kinetic energy?

A. YES

B. NO

Does the car gain energy when it stops?

A. YES

B. NO

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Tennessee Comprehensive
Assessment Program TCAP
Grade 6 Science
Alternative Assessment
Item Release
Spring 2018



Tennessee Comprehensive Assessment Program

TCAP

Grade 7 Science Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Grade 7 Science ALT Items

Item Information

ETS Item Code: TAS01S0585	Content: Science
Item ID: 2032	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.1.3	AAT or UC: UC
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Recognize major organs of animals.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A	

This is about organs.

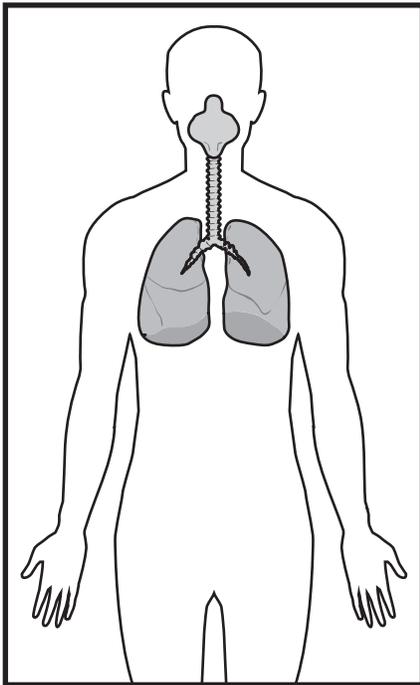
The respiratory system is one of the systems that helps an animal survive. Organs work together to keep the respiratory system working.

Which diagram shows the organs of the respiratory system?

Point to and read each option to the student.

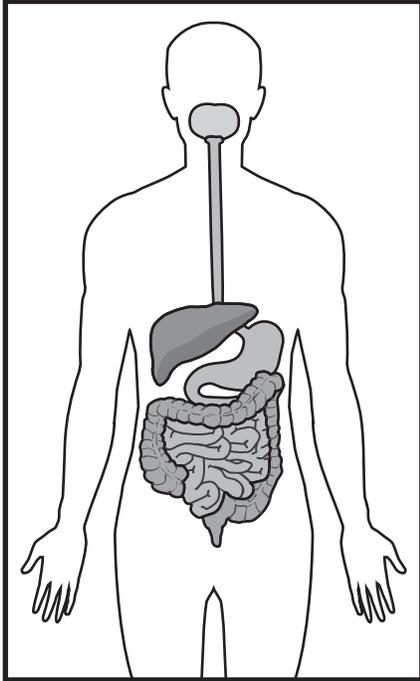
[For all students, read "This diagram shows some of the organs located in a human's head, neck, and chest. The nose area, the mouth, the trachea, and the lungs are the organs shown in this diagram."]

A.



[For all students, read "This diagram shows some of the organs located in a human's head, neck, and abdomen. The mouth, the esophagus, the liver, the stomach, and both the large and small intestines are the organs shown in this diagram."]

B.



Item Information

ETS Item Code: TAS01S0586	Content: Science
Item ID: 2033	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: C	

This is about organ systems.

An elephant's body has many different organs. Some organs work together in a group or system. Each system helps the elephant's body in a different way.

Which organ system helps an elephant's body fight off a virus?

Point to and read each option to the student.

- A. the skeletal system
- B. the digestive system
- C. the immune system

Item Information

ETS Item Code: TAS01S0587	Content: Science
Item ID: 2034	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A,B,B	

This is about organ systems.

The human body has many different organs. Some of the organs work together in a group or system. Each system helps the human body in a different way. The muscular system is one of these systems.

Point to and read each question to the student.

Does the muscular system help a human run? A. YES B. NO

Does the muscular system help a human taste food? A. YES B. NO

Does the muscular system protect a human from an illness? A. YES B. NO

Item Information

ETS Item Code: TAS01S0588	Content: Science
Item ID: 2035	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B,A,A	

This is about organ systems.

Dolphins have organs that help them survive. Dolphins use these organs to move safely in the water. These organs work together in the dolphin's nervous system.

Point to and read each question to the student.

Does the nervous system support the weight of the dolphin's body?

A. YES

B. NO

Does the nervous system help the dolphin find food?

A. YES

B. NO

Does the nervous system help the dolphin feel the temperature of the water?

A. YES

B. NO

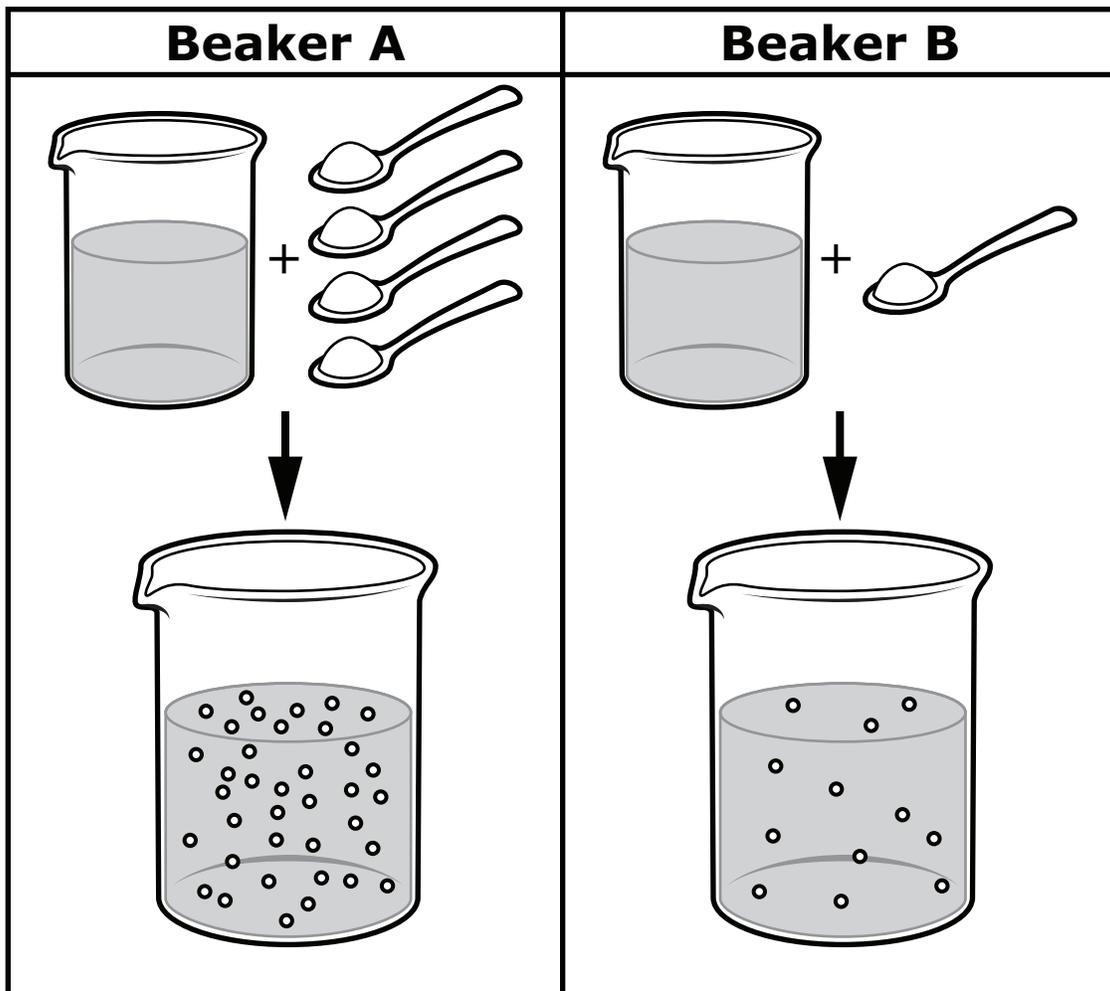
Item Information

ETS Item Code: TAS01S0289	Content: Science
Item ID: 1173	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.1.5	AAT or UC: UC
Standard Text: Explain how materials move through simple diffusion.	
AAT or UC Text: Identify a solution of greater concentration of solute (e.g., salt).	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A	

This is about dissolving salt into water.

Point to the diagram.

[For all students, read "The diagram shows two beakers. The teacher added four teaspoons of salt to Beaker A (point to 'Beaker A'). The teacher used a spoon to stir the salt in the water. The teacher added one teaspoon of salt to Beaker B (point to 'Beaker B'). The teacher used a spoon to stir the salt in the water."]



Which beaker contains water that is more salty?

Point to and read each option to the student.

A. Beaker A

B. Beaker B

Item Information

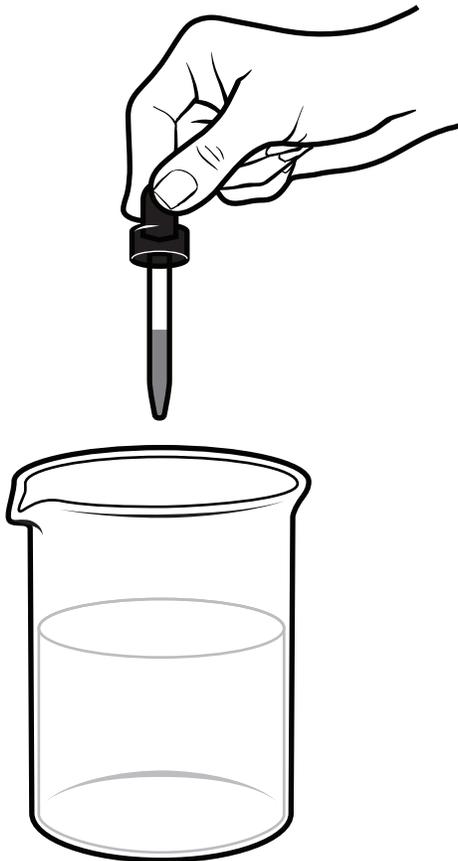
ETS Item Code: TAS01S0290	Content: Science
Item ID: 1174	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.1.5	AAT or UC: AAT
Standard Text: Explain how materials move through simple diffusion.	
AAT or UC Text: Predict the outcome when materials move through simple diffusion (e.g., when a teabag is placed into a cup of hot water the water changes color and tastes of tea).	
Category: Cells, Flow of Matter & Energy	
Correct Answer: C	

This is about diffusion.

A student adds food coloring to a beaker of water.

Point to the picture.

[For all students, read "This picture shows a beaker of plain water (point to the beaker). A student is using an eyedropper to add food coloring to the water (point to the hand)."]



What will happen one hour after the food coloring has been added to the water?

Point to and read each option to the student.

- A. The food coloring will stay at the top of the water in the beaker.
- B. The food coloring will sink to the bottom of the water in the beaker.
- C. The food coloring will mix evenly with the water in the beaker.

Item Information

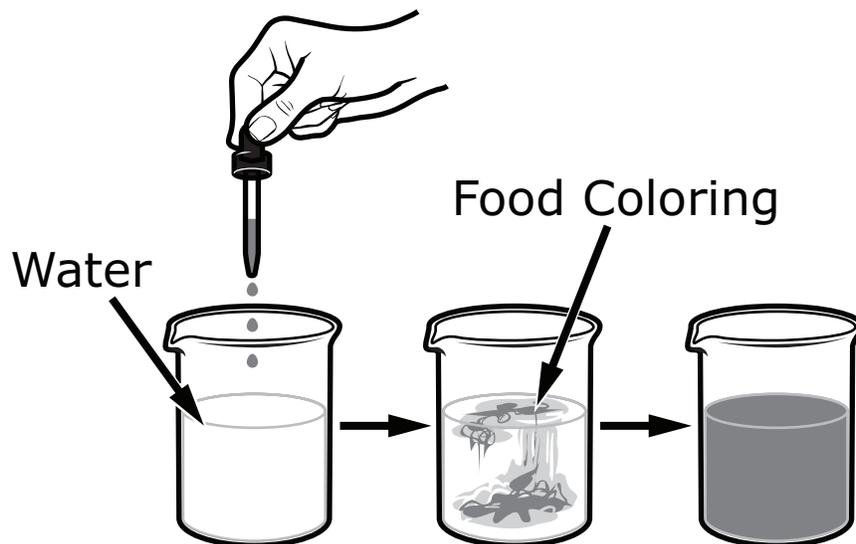
ETS Item Code: TAS01S0291	Content: Science
Item ID: 1175	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.1.5	AAT or UC: AAT
Standard Text: Explain how materials move through simple diffusion.	
AAT or UC Text: Predict the outcome when materials move through simple diffusion (e.g., when a teabag is placed into a cup of hot water the water changes color and tastes of tea).	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A,A,B	

This is about diffusion.

Diffusion is a process where molecules from one area move and spread out into a larger area.

Point to the diagram.

[For all students, read "This diagram shows the process of diffusion. A student used an eyedropper to add food coloring to a beaker of cold water (point to the hand holding the eyedropper). The food coloring was added to the water. Then the food coloring slowly spread through the cold water in the beaker (point to the second beaker). The food coloring mixed with the molecules of water. The solution in the beaker changed color once the food coloring mixed completely with the water (point to the third beaker)."]



Identify whether each action would speed up the rate of diffusion.

Point to and read each question to the student.

Would raising the temperature of the water speed up the rate of diffusion?

A. YES

B. NO

Would stirring the solution speed up the rate of diffusion?

A. YES

B. NO

Would adding a smaller amount of food coloring to the water speed up the rate of diffusion?

A. YES

B. NO

Item Information

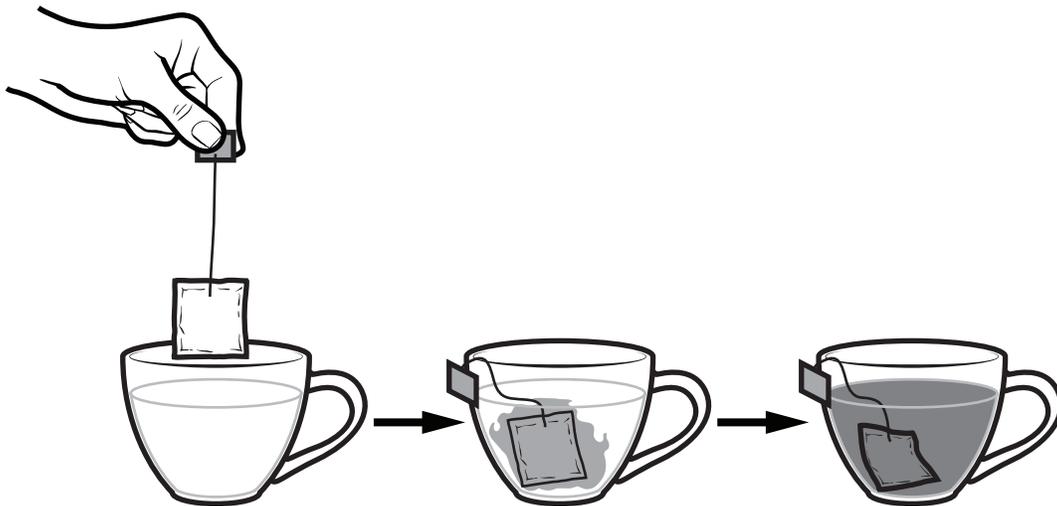
ETS Item Code:	TAS01S0292	Content:	Science
Item ID:	1176	Grade:	07
DOK Level:	4	Item Type:	MP
Level:	3b	Points:	3
Standard Code:	0707.1.5	AAT or UC:	AAT
Standard Text:	Explain how materials move through simple diffusion.		
AAT or UC Text:	Predict the outcome when materials move through simple diffusion (e.g., when a teabag is placed into a cup of hot water the water changes color and tastes of tea).		
Category:	Cells, Flow of Matter & Energy		
Correct Answer:	B,A,B		

This is about diffusion.

Diffusion is a process where molecules from one area move and spread out into a larger area.

Point to the diagram.

[For all students, read "The diagram shows the process of diffusion. A student placed a tea bag into a cup of hot water (point to the hand holding the tea bag). When the tea bag entered the water, the molecules from the tea slowly spread through the cup and mixed with the molecules of the water (point to the second teacup). When the tea mixed completely with the water, the solution became a different color (point to the third teacup)."]



Identify whether each action would speed up the rate of diffusion.

Point to and read each question to the student.

Would lowering the temperature of the water speed up the rate of diffusion?

A. YES

B. NO

Would stirring the cup speed up the rate of diffusion?

A. YES

B. NO

Would using a cup that contains more water speed up the rate of diffusion?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0293	Content: Science
Item ID: 1177	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.3.1	AAT or UC: UC
Standard Text: Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.	
AAT or UC Text: Identify oxygen as what animals breathe in.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B	

This is about breathing.

Animals have different body systems that allow them to breathe.

What gas do animals breathe in?

Point to and read each option to the student.

- A. helium
- B. oxygen

Item Information

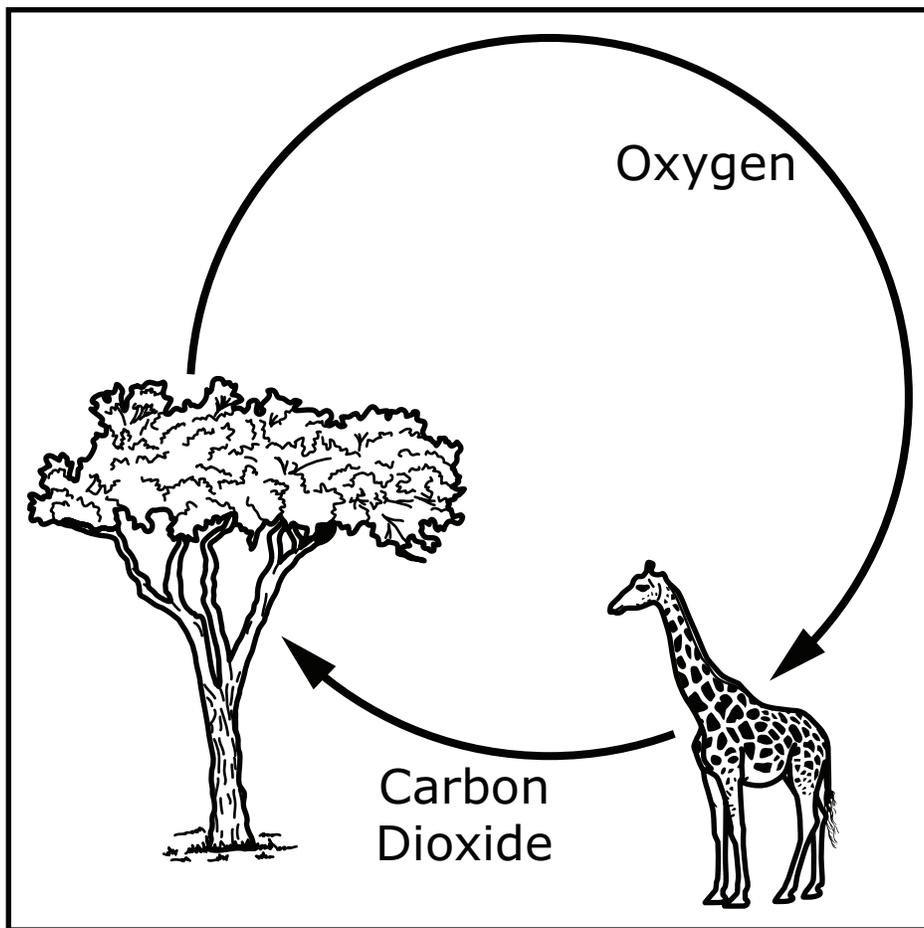
ETS Item Code: TAS01S0294	Content: Science
Item ID: 1178	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.3.1	AAT or UC: AAT
Standard Text: Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.	
AAT or UC Text: Identify a model illustrating the cycle of how animals breathe in oxygen and breathe out carbon dioxide, while plants do the opposite.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B	

This is about plants and animals.

Animals breathe air. Plants help create the type of air that animals breathe.

Point to the diagram.

[For all students, read "This diagram shows how gases move between plants and animals."]



Which of these describes how the gases in this model are used by plants and animals?

Point to and read each option to the student.

- A. Oxygen is taken in by plants.
- B. Oxygen is taken in by animals.
- C. Carbon dioxide is taken in by animals.

Item Information

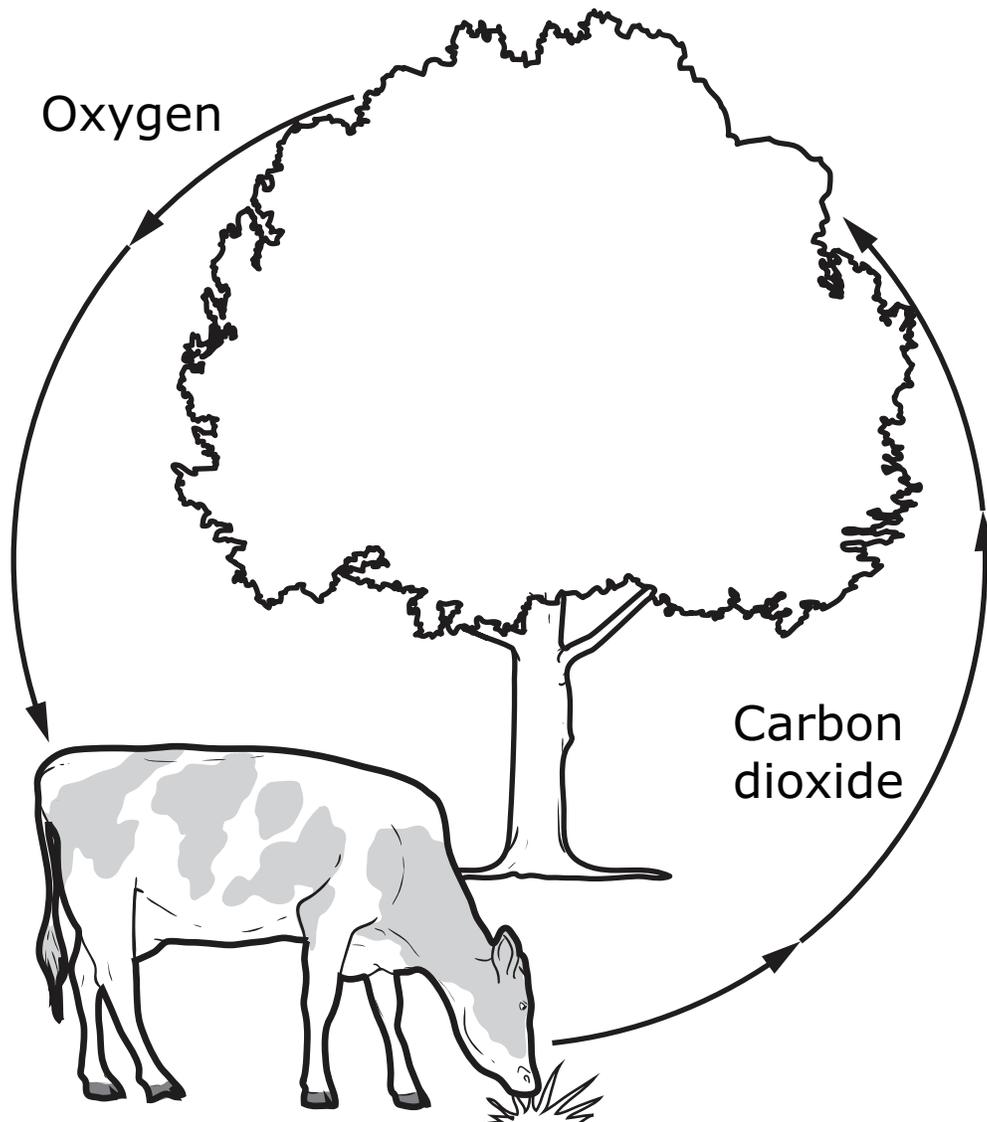
ETS Item Code: TAS01S0295	Content: Science
Item ID: 1179	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.3.1	AAT or UC: AAT
Standard Text: Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.	
AAT or UC Text: Identify a model illustrating the cycle of how animals breathe in oxygen and breathe out carbon dioxide, while plants do the opposite.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A,B,A	

This is about plants and animals.

Plants use water in the soil and gases in the air to survive. Animals use water, gases in the air, and food in the environment to survive.

Point to the diagram.

[For all students, read "This is a diagram showing plants and an animal. The cow breathes in oxygen (point to the cow). The cow eats grass and the grass gives the cow energy. The cow breathes out carbon dioxide. The tree takes in carbon dioxide (point to the tree). The tree is able to make its own food. The tree releases oxygen."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Do plants release oxygen? A. YES B. NO

Do plants release carbon dioxide? A. YES B. NO

Do plants make their own food? A. YES B. NO

Item Information

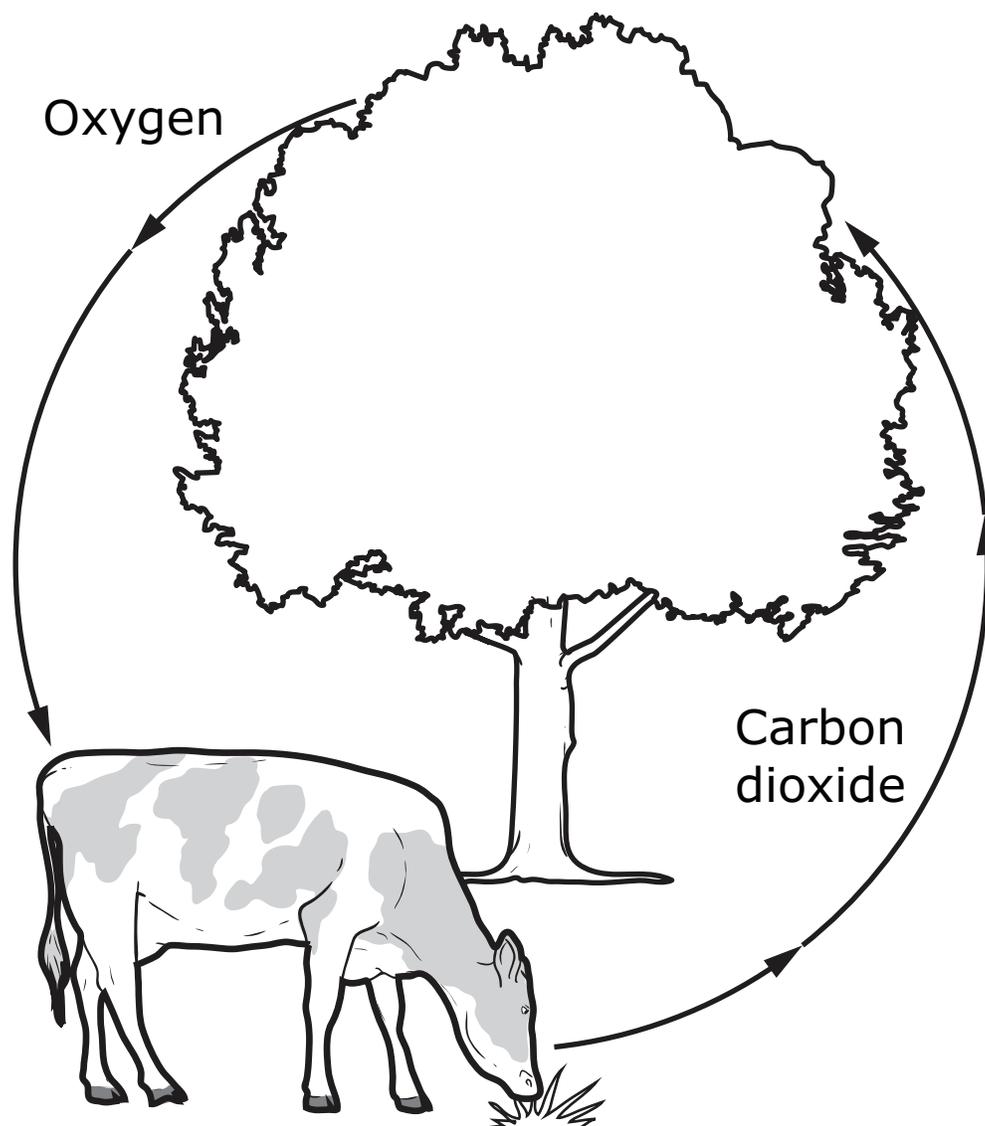
ETS Item Code: TAS01S0296	Content: Science
Item ID: 1180	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0707.3.1	AAT or UC: AAT
Standard Text: Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.	
AAT or UC Text: Identify a model illustrating the cycle of how animals breathe in oxygen and breathe out carbon dioxide, while plants do the opposite.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A,B,A	

This is about plants and animals.

Plants use water in the soil and gases in the air to survive. Animals use water, gases in the air, and food in the environment to survive.

Point to the diagram.

[For all students, read "This diagram shows a plant and an animal. The cow breathes in oxygen (point to the cow). The cow eats grass and the grass gives the cow energy. The cow breathes out carbon dioxide. The tree takes in carbon dioxide (point to the tree). The tree is able to make its own food. The tree releases oxygen."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Which one can make their own food?

A. plants

B. animals

Which one breathes in oxygen?

A. plants

B. animals

Which one needs to take in carbon dioxide?

A. plants

B. animals

Item Information

ETS Item Code: TAS01S0345

Content: Science

Item ID: 1180

Grade: 07

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0707.4.2

AAT or UC: UC

Standard Text: Match flower parts with their reproductive functions.

AAT or UC Text: Use a model to identify a step of plant reproduction (e.g., aromas of flowers attracting insects, insects flying into flowers, grains of pollen sticking to insects, spreading of pollen by insects, seeds developing).

Category: Heredity

Correct Answer: A

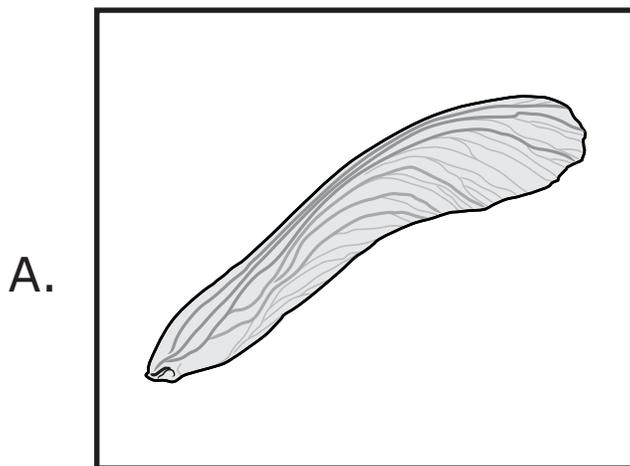
This is about seeds.

Plants are not able to move from place to place. Many new plants grow from seeds. Seeds are able to move around in many ways.

Which seed is usually carried by wind?

Point to and read each option to the student.

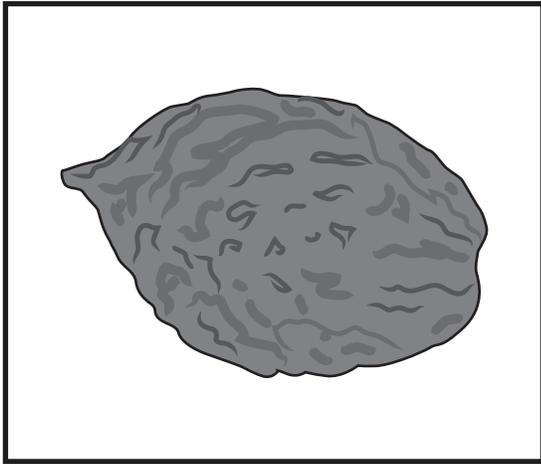
[For all students, read "This is a seed from a maple tree."]



maple seed

[For all students, read "This is a seed from a peach tree."]

B.



peach seed

Item Information

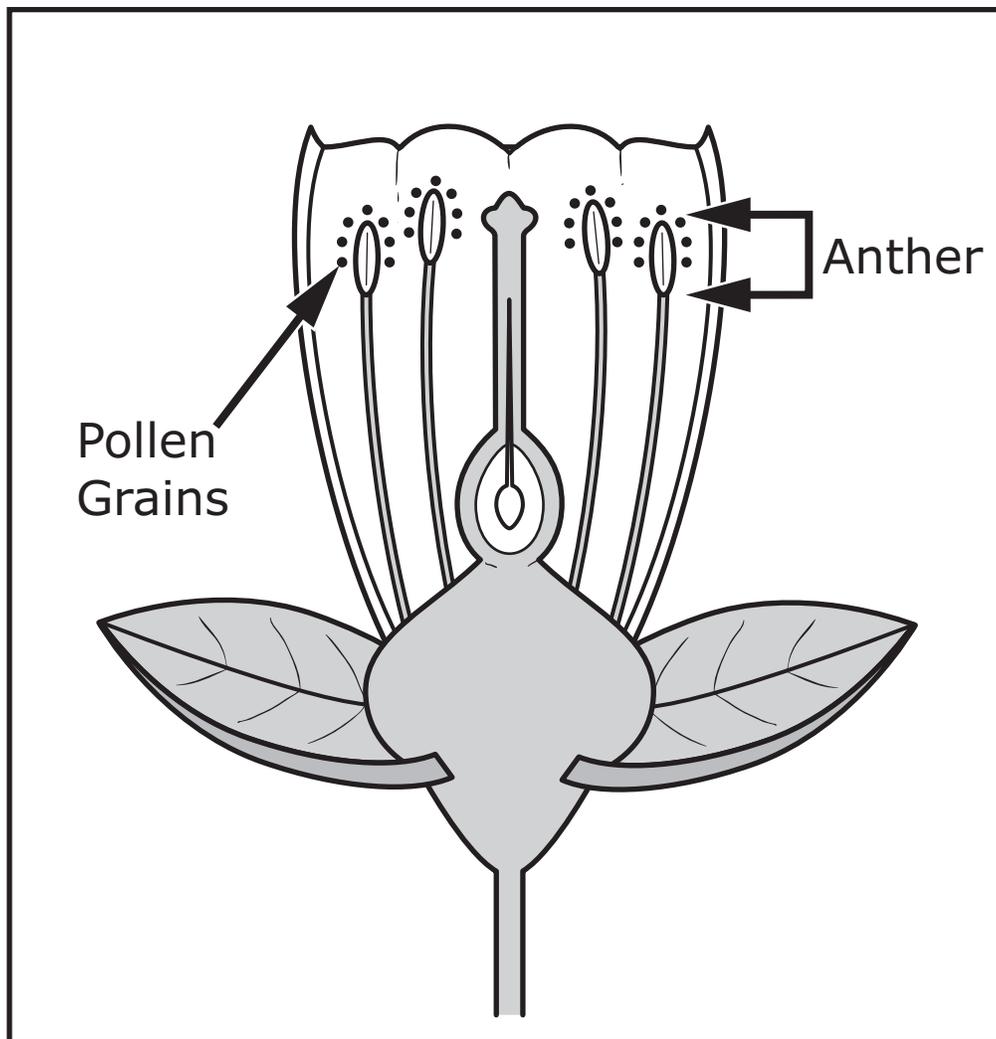
ETS Item Code: TAS01S0346	Content: Science
Item ID: 1181	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.4.2	AAT or UC: AAT
Standard Text: Match flower parts with their reproductive functions.	
AAT or UC Text: Identify the role of insects in plant reproduction (e.g., transferring pollen or seeds).	
Category: Heredity	
Correct Answer: C	

This is about insects and pollen.

Pollen is a collection of small grains attached to the anthers of a plant.

Point to the diagram.

[For all students, read "This diagram shows a flowering plant. This is an anther (point to the identified anther). An anther makes the pollen grains (point to the pollen grains)."]



Which insect feature would be **best** for collecting pollen grains from the anther?

Point to and read each option to the student.

- A. the antennae of an ant
- B. the mouth parts of a mosquito
- C. the hairs on the legs of a bee

Item Information

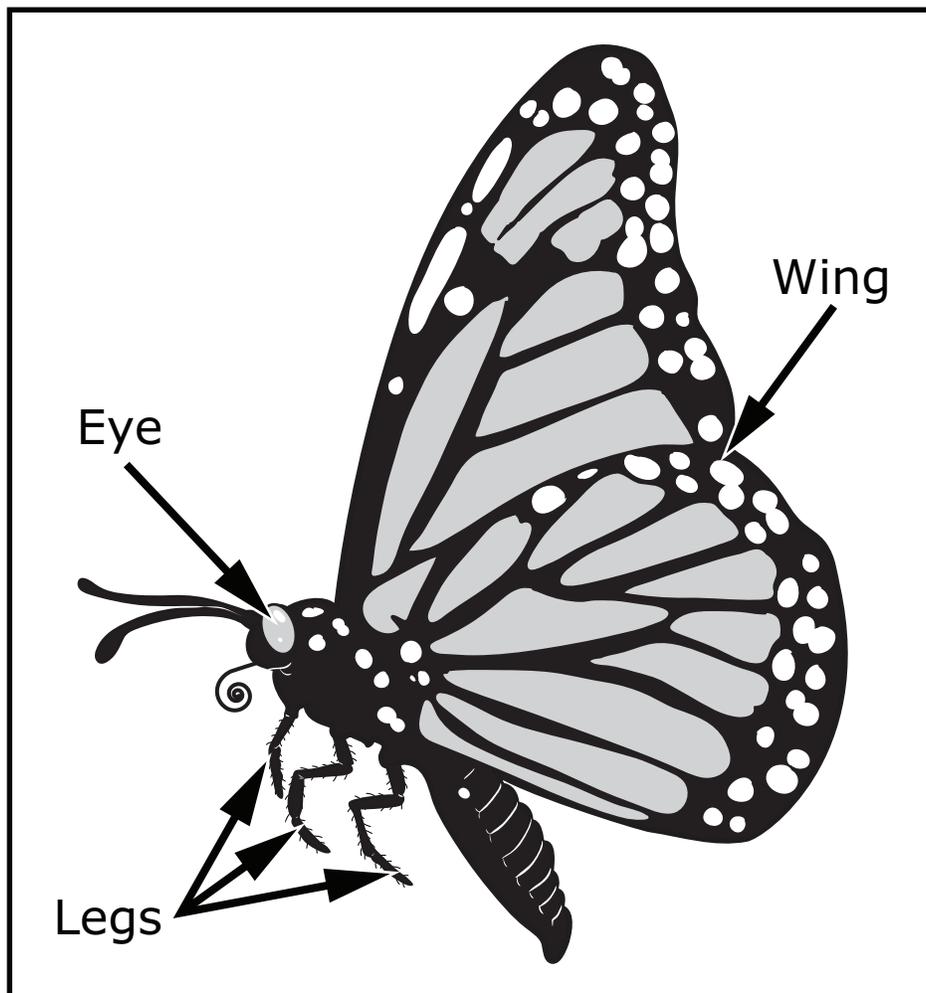
ETS Item Code: TAS01S0347	Content: Science
Item ID: 1182	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.4.2	AAT or UC: AAT
Standard Text: Match flower parts with their reproductive functions.	
AAT or UC Text: Identify the role of insects in plant reproduction (e.g., transferring pollen or seeds).	
Category: Heredity	
Correct Answer: A,B,A	

This is about insects and pollen.

Pollination happens when the pollen from one plant is carried to another plant. Pollination is the process that helps plants make seeds.

Point to the diagram.

[For all students, read "This is a butterfly. This is one of the butterfly's wings (point to the wing). This is one of the eyes (point to the eye). These are the legs (point to the legs). The legs are covered with tiny hairs."]



Use this information to answer the questions.

Point to and read each question to the student.

Do the eyes help the butterfly find brightly colored flowers?

A. YES

B. NO

Do the wings help the butterfly attract brightly colored flowers?

A. YES

B. NO

Can pollen stick to the tiny hairs on the butterfly's legs?

A. YES

B. NO

Item Information

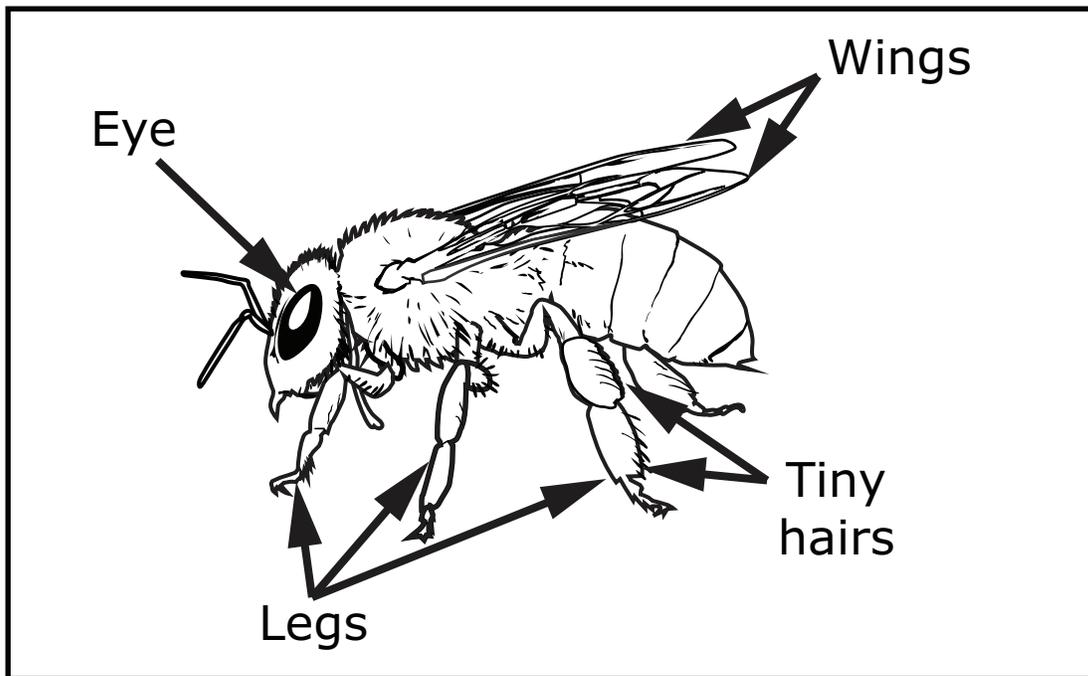
ETS Item Code: TAS01S0348	Content: Science
Item ID: 1183	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0707.4.2	AAT or UC: AAT
Standard Text: Match flower parts with their reproductive functions.	
AAT or UC Text: Identify the role of insects in plant reproduction (e.g., transferring pollen or seeds).	
Category: Heredity	
Correct Answer: A,A,B	

This is about insects and pollen.

Pollination happens when the pollen from one plant is carried to another plant. Pollination is the process that helps plants make seeds.

Point to the diagram.

[For all students, read "This is a bee. Bees are small insects. These are the bee's wings (point to the wings). This is one of the bee's eyes (point to the eye). These are the bee's legs (point to each leg). Each leg is covered with tiny hairs (point to the tiny hairs)."]



Use this information to answer the questions.

Point to and read each question to the student.

Does pollen stick to the hairs on the bee's legs?

A. YES

B. NO

Does the bee's small size help it fly from flower to flower?

A. YES

B. NO

Does the bee store collected pollen on its eyes?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0349

Content: Science

Item ID: 1185

Grade: 07

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0707.4.4

AAT or UC: UC

Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

AAT or UC Text: Identify similarities and differences between plant or animal parents and their offspring (e.g., eye color, hair/fur color, leaf shape).

Category: Heredity

Correct Answer: B

This is about parents and offspring.

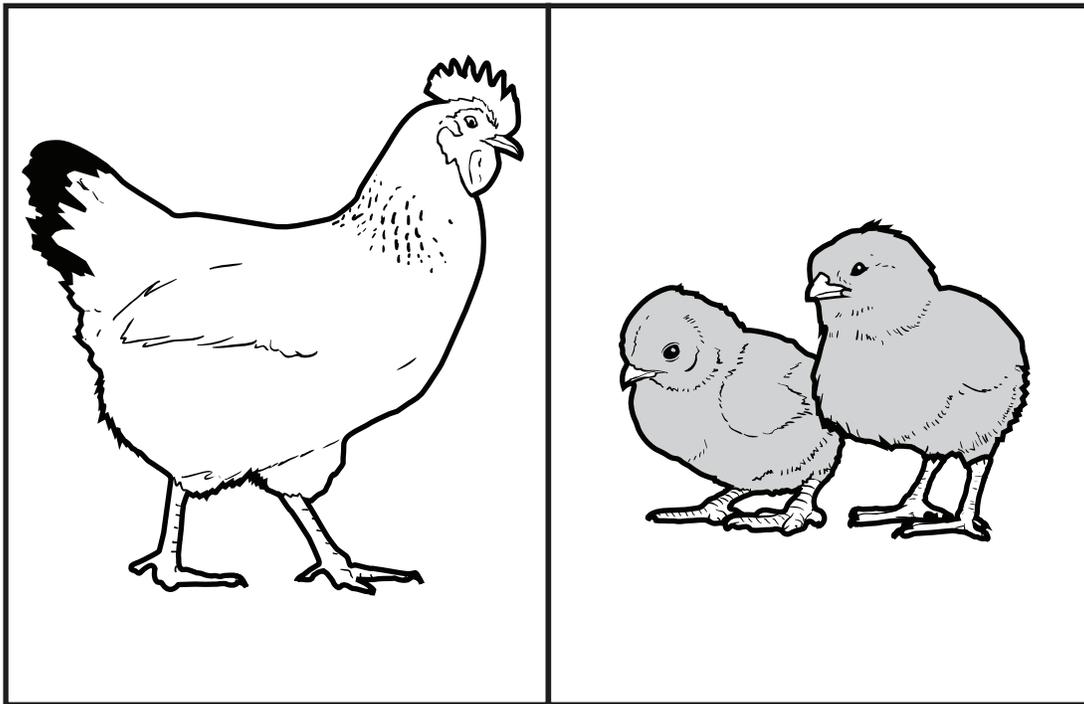
Offspring inherit traits from their parents.

Point to the diagram.

[For all students, read "This diagram shows a chicken and her two chicks. This chicken is the mother of the chicks (point to 'Parent'). This chicken has white feathers on most of her body. She also has some black feathers on her neck and tail. These chicks have yellow feathers (point to the 'Offspring')."]

Parent

Offspring



How are the chicks similar to the mother?

Point to and read each option to the student.

- A. The mother and the chicks have the same feather pattern.
- B. The mother and the chicks have two legs and a beak.

Item Information

ETS Item Code: TAS01S0350

Content: Science

Item ID: 1186

Grade: 07

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0707.4.4

AAT or UC: AAT

Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

AAT or UC Text: Identify how a variety of inherited traits passed from parents to offspring lead to differences within the same species (e.g., puppies that differ in color and size).

Category: Heredity

Correct Answer: C

This is about inherited traits.

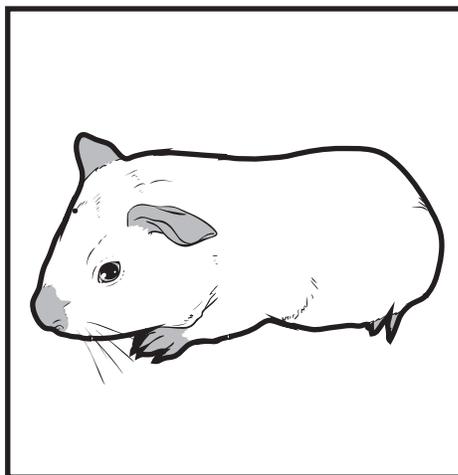
Traits are passed from parents to offspring.

Point to the picture.

[For all students, read "This picture shows two guinea pig parents. This is the mother guinea pig (point to the mother guinea pig). She has black fur. This is the father guinea pig (point to the father guinea pig). He has white fur."]



Mother
Guinea Pig



Father
Guinea Pig

What is true about the traits that the mother and father guinea pigs will pass to their offspring?

Point to and read each option to the student.

- A. All offspring will have identical traits.
- B. All offspring will have traits from only one parent.
- C. All offspring will have some of each parent's traits.

Item Information

ETS Item Code: TAS01S0351

Content: Science

Item ID: 1187

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0707.4.4

AAT or UC: AAT

Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

AAT or UC Text: Identify how a variety of inherited traits passed from parents to offspring lead to differences within the same species (e.g., puppies that differ in color and size).

Category: Heredity

Correct Answer: A,A,A

This is about inherited traits.

Traits are passed from parent to offspring. Traits are dominant or recessive. A dominant trait is a characteristic that is always visible. A recessive trait may or may not be visible.

Point to the picture.

[For all students, read "This is a picture of two pea plants. This is a tall pea plant (point to the 'Tall' pea plant). The tall height of the pea plant is a dominant trait. This is a short pea plant (point to the 'Short' pea plant). The short height of the pea plant is a recessive trait. The tall pea plant is crossed with this short pea plant to make new pea plants."]



Tall
Pea Plant



Short
Pea Plant

Use this information to answer the questions.

Point to and read each question to the student.

Could some of the offspring of the parent pea plants be tall? A. YES B. NO

Do the offspring inherit traits from both parent pea plants? A. YES B. NO

Will all of the offspring be pea plants? A. YES B. NO

Item Information

ETS Item Code: TAS01S0352

Content: Science

Item ID: 1188

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0707.4.4

AAT or UC: AAT

Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

AAT or UC Text: Identify how a variety of inherited traits passed from parents to offspring lead to differences within the same species (e.g., puppies that differ in color and size).

Category: Heredity

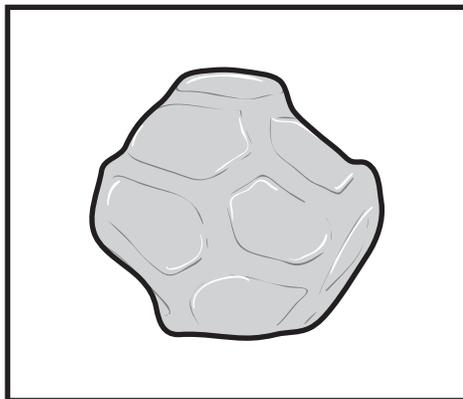
Correct Answer: A,A,B

This is about inherited traits.

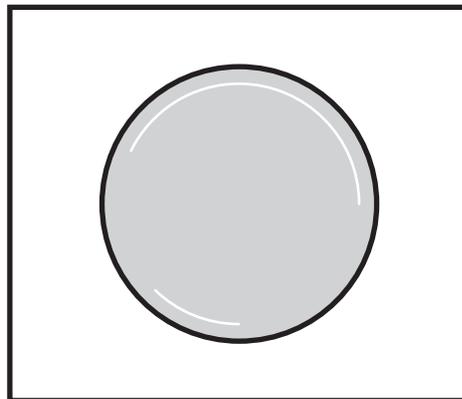
Traits are passed from parents to offspring. Traits are dominant or recessive. A dominant trait is a characteristic that is always visible. A recessive trait may or may not be visible.

Point to the picture.

[For all students, read "This is a picture of two seed shapes for pea plants. (Point to the 'Wrinkled' pea.) This is a wrinkled seed shape. The wrinkled seed shape is a recessive trait. (Point to the 'Round' pea.) This is a round seed shape. The round seed shape is a dominant trait. A plant with wrinkled seed shape is crossed with a plant with round seed shape to make new pea plants."]



Wrinkled
Seed Shape



Round
Seed Shape

Use this information to answer the questions.

Point to and read each question to the student.

Could some of the offspring have wrinkled seed shape?

A. YES

B. NO

Could some of the offspring have round seed shape?

A. YES

B. NO

Do the offspring inherit traits from only one parent?

A. YES

B. NO

Item Information

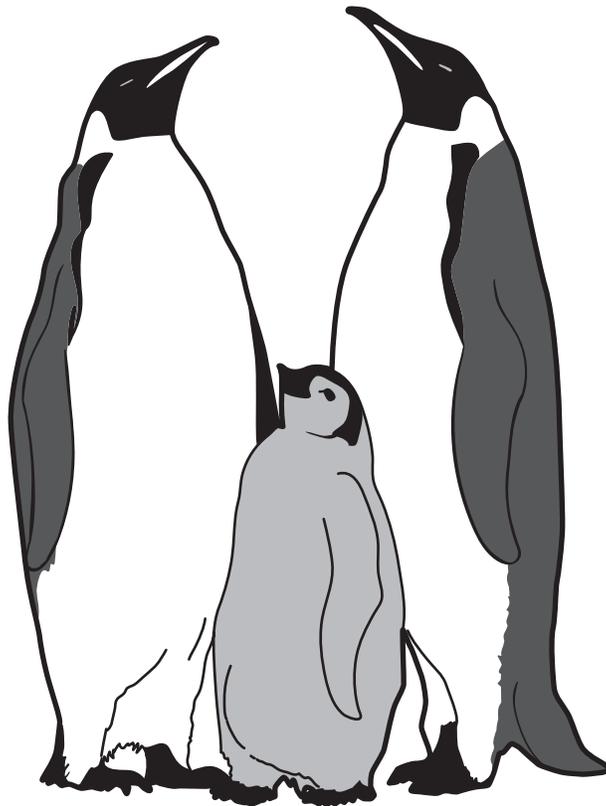
ETS Item Code: TAS02S0641	Content: Science
Item ID:	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.4.4	AAT or UC: UC
Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.	
AAT or UC Text: Identify similarities and differences between plant or animal parents and their offspring (e.g., eye color, hair/fur color, leaf shape).	
Category: Heredity	
Correct Answer: A	

This is about parents and offspring.

Sometimes offspring do not look exactly like their parents. As the offspring grows up, it will grow and develop features that are more similar to the parents.

Point to the picture.

[For all students, read "This is a picture of an emperor penguin family. Adult emperor penguins mainly have black or white feathers. The young offspring mainly have gray feathers and some black feathers."]



What is something the emperor penguin parents and young offspring both have?

Point to and read each option to the student.

- A. two wings
- B. white feathers

Item Information

ETS Item Code: TAS02S0642

Content: Science

Item ID:

Grade: 07

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0707.4.4

AAT or UC: AAT

Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

AAT or UC Text: Identify how a variety of inherited traits passed from parents to offspring lead to differences within the same species (e.g., puppies that differ in color and size).

Category: Heredity

Correct Answer: C

This is about inherited traits.

Offspring inherit traits from their parents.

A mother wolf is about to have a litter of pups. She has gray fur and the father wolf has black fur.

What fur color will **most** likely be seen on the wolf pups?

Point to and read each option to the student.

- A. All the wolf pups will have gray fur. The wolf pups only inherit traits from the mother.
- B. All the wolf pups will have black fur. The wolf pups only inherit traits from the father.
- C. Some wolf pups will have gray fur and some will have black fur. The wolf pups inherit traits from both parents.

Item Information

ETS Item Code: TAS02S0643

Content: Science

Item ID:

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0707.4.4

AAT or UC: AAT

Standard Text: Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

AAT or UC Text: Identify how a variety of inherited traits passed from parents to offspring lead to differences within the same species (e.g., puppies that differ in color and size).

Category: Heredity

Correct Answer: A,B,B

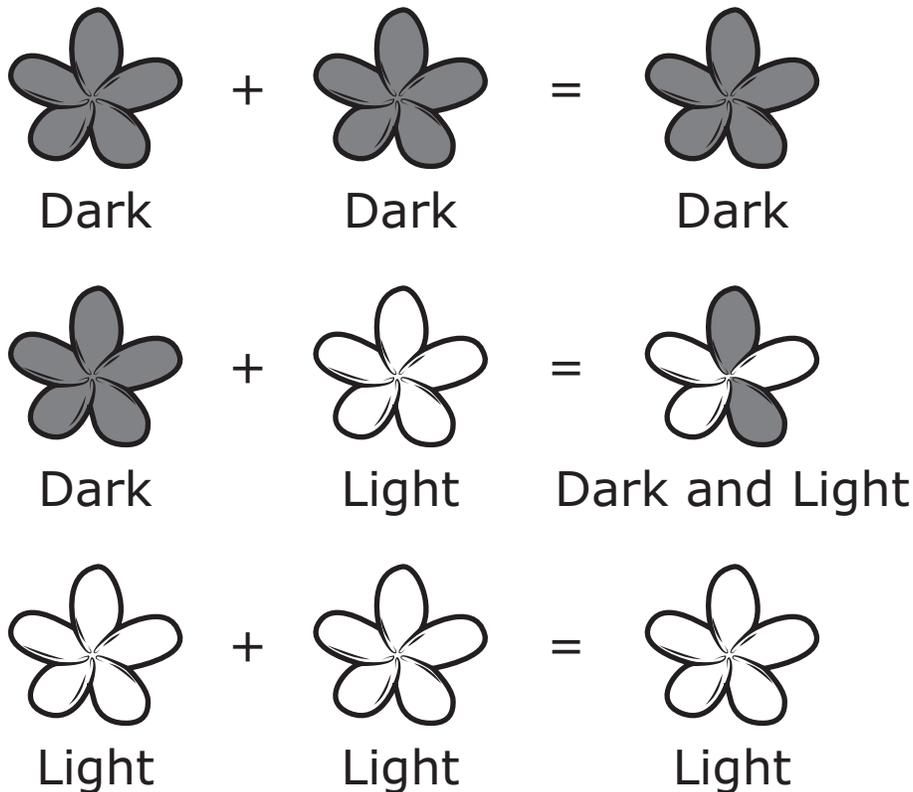
This is about inherited traits.

Offspring inherit traits from their parents.

Flowering plants inherit petal color from their parent plants.

Point to the diagram.

[For students with visual impairment, read "This is a diagram about inherited traits in flower petals. In the first part of the diagram (point to the first line), a dark-colored flower plus a dark-colored flower equals a dark-colored flower. In the second part of the diagram (point to the second line), a dark-colored flower plus a light-colored flower equals a flower that is both dark and light. In the third part of the diagram (point to the third line), a light-colored flower plus a light-colored flower equals a light-colored flower."]



Use the information about the flowers to answer the questions.

Point to and read each question to the student.

If a plant has flowers that are only dark, did it inherit traits from both parents?

A. YES

B. NO

If a plant has a flower that is both dark and light, did it inherit traits from **only** one parent?

A. YES

B. NO

If a plant has flowers that are only light, did it inherit traits from **only** one parent?

A. YES

B. NO

Item Information

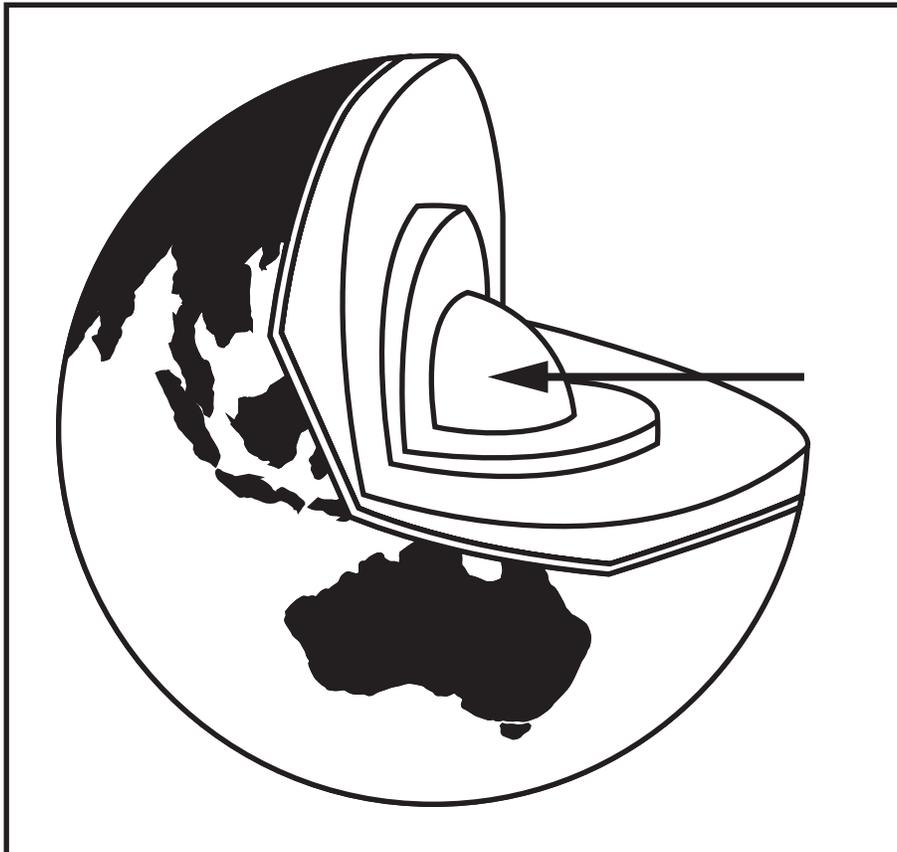
ETS Item Code: TAS01S0353	Content: Science
Item ID: 1189	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.7.5	AAT or UC: UC
Standard Text: Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.	
AAT or UC Text: Identify the crust or core in a model of Earth's layers.	
Category: The Earth	
Correct Answer: A	

This is about Earth's different layers.

Point to the diagram.

[For all students, read "This is a diagram of Earth. This shows different layers of Earth (point to each of the layers)."]

Earth's Layers



Which layer of Earth is the arrow pointing to?

Point to and read each option to the student.

- A. the core
- B. the crust

Item Information

ETS Item Code: TAS01S0354

Content: Science

Item ID: 1190

Grade: 07

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0707.7.5

AAT or UC: AAT

Standard Text: Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.

AAT or UC Text: Identify how the shapes of the continents (fit like a jigsaw puzzle) and fossil comparisons (fit together) along the edges of continents demonstrate lithospheric plate movement.

Category: The Earth

Correct Answer: B

This is about the continents of Earth.

Scientists think that all the continents were once joined together to make one giant continent. Over millions of years, the continents moved to their current positions.

Which maps show two continents that fit next to each other millions of years ago?

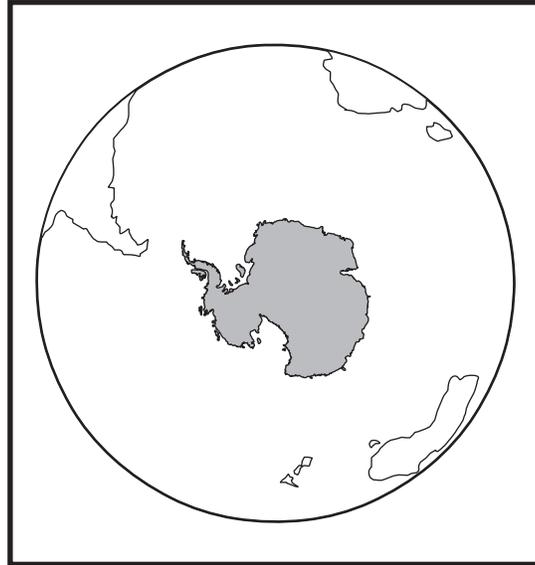
Point to and read each option to the student.

[For all students, read "These maps show two continents. This is North America (point to North America). This is Antarctica (point to Antarctica)."]

The Continent of North America

The Continent of Antarctica

A.

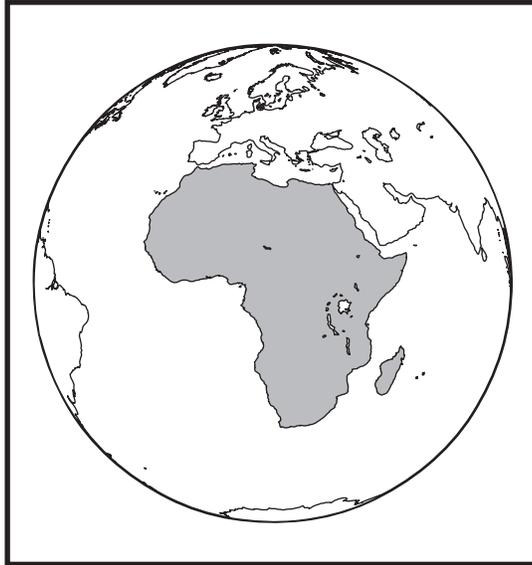


[For all students, read "These maps show two continents. This is South America (point to South America). This is Africa (point to Africa)."]

The Continent of South America

The Continent of Africa

B.

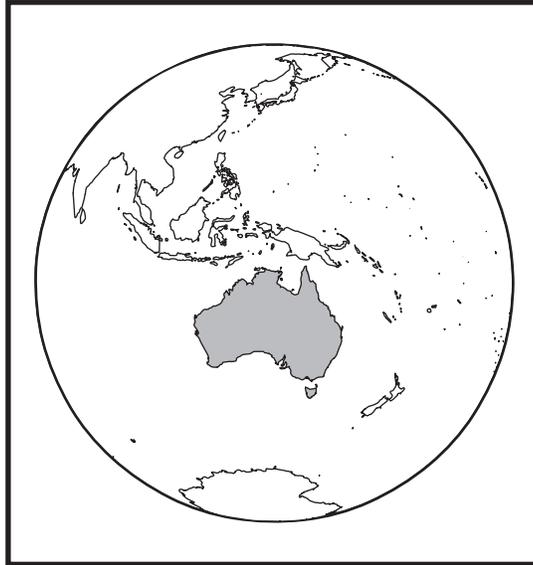


[For all students, read "These maps show two continents. This is Europe (point to Europe). This is Australia (point to Australia)."]

The Continent of Europe

The Continent of Australia

C.



Item Information

ETS Item Code: TAS01S0355

Content: Science

Item ID: 1191

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0707.7.5

AAT or UC: AAT

Standard Text: Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.

AAT or UC Text: Identify how the shapes of the continents (fit like a jigsaw puzzle) and fossil comparisons (fit together) along the edges of continents demonstrate lithospheric plate movement.

Category: The Earth

Correct Answer: B,A,A

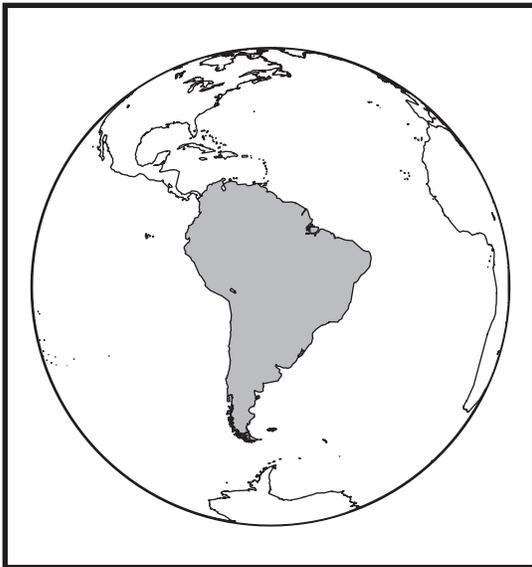
This is about the continents of Earth.

Scientists think that all the continents were once joined together to make one giant continent. Over millions of years, the continents moved to their current positions.

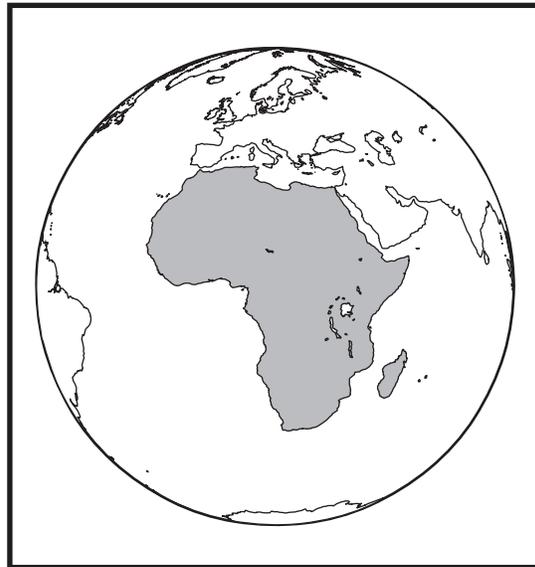
Point to the maps.

[For all students, read "These maps show two continents. This is South America (point to South America). This is Africa (point to Africa)."]

The Continent of South America



The Continent of Africa



Use the information to answer the questions.

Point to and read each question to the student.

Did ocean currents push the two continents apart?

A. YES

B. NO

Do the shapes of these two continents seem to fit together like puzzle pieces?

A. YES

B. NO

Are some fossils found in South America similar to fossils found in Africa?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0356

Content: Science

Item ID: 1192

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0707.7.5

AAT or UC: AAT

Standard Text: Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.

AAT or UC Text: Identify how the shapes of the continents (fit like a jigsaw puzzle) and fossil comparisons (fit together) along the edges of continents demonstrate lithospheric plate movement.

Category: The Earth

Correct Answer: A,B,A

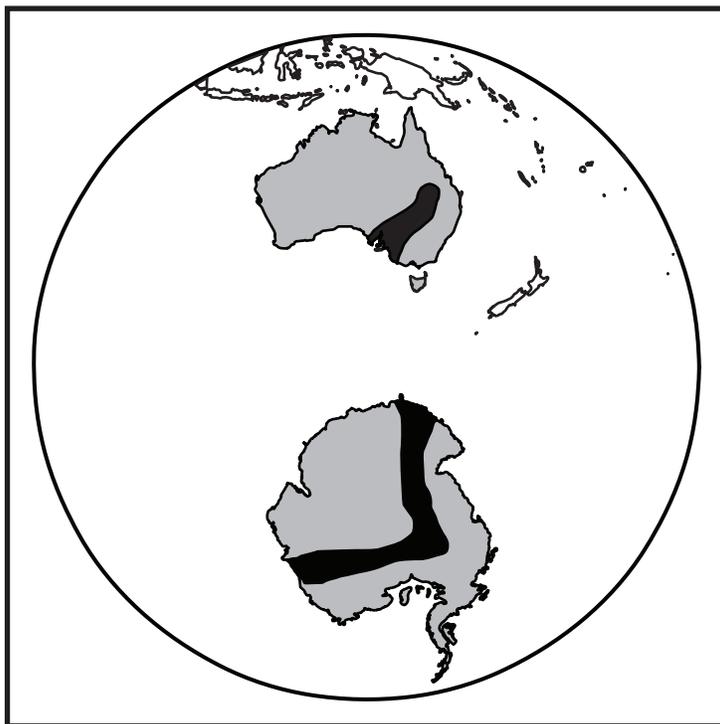
This is about the continents of Earth.

Scientists think that all the continents were once joined together to make one giant continent. Over millions of years, the continents moved to their current positions.

Point to the map.

[For all students, read "This map shows the current location of two continents. The paths on the continents show fossil sites for an extinct plant. This is Australia (point to Australia). Fossils of the plant have been found in this area of the continent (point to the path on Australia). This is Antarctica (point to Antarctica). Fossils for the same plant have been found in this area of the continent (point to the path on Antarctica)."]

Fossil Areas in Australia and Antarctica



Use the information to answer the questions.

Point to and read each question to the student.

Do the fossil sites provide evidence that the two continents were once connected?

A. YES

B. NO

Are the two continents connected today?

A. YES

B. NO

Did the movement of Earth's plates cause the two continents to move to their current positions?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0357

Content: Science

Item ID: 1193

Grade: 07

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0707.7.6

AAT or UC: UC

Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.

AAT or UC Text: Recognize a description of a process such as an earthquake, flood, or volcanic eruption that can change the surface of the Earth.

Category: The Earth

Correct Answer: A

This is about changes to Earth's surface.

The surface of Earth is constantly changing. Volcanoes can change Earth's surface very quickly.

Which is a description of a volcano?

Point to and read each option to the student.

- A. lava flowing from an opening in Earth's crust
- B. seawater covering a large area of land

Item Information

ETS Item Code: TAS01S0358	Content: Science
Item ID: 1194	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.7.6	AAT or UC: AAT
Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.	
AAT or UC Text: Identify the result of movements of sections of Earth's crust (e.g., earthquakes, mountain building, volcanoes, and sea floor spreading).	
Category: The Earth	
Correct Answer: B	

This is about how Earth's crust is always changing.

Tectonic plates cover Earth. The plates are always in motion.

Point to the map.

[For all students, read "This map shows the continents of Earth in white (point to each continent). The map also shows the boundaries between tectonic plates. This is a plate boundary (point to the dark line surrounding North America). Tectonic plates can move closer together, move farther apart, or slide past each other."]



Which of these will most likely happen when two of the tectonic plates slide past each other?

Point to and read each option to the student.

- A. Sliding plates can cause mountains to form.
- B. Sliding plates can cause an earthquake.
- C. Sliding plates can cause a hurricane.

Item Information

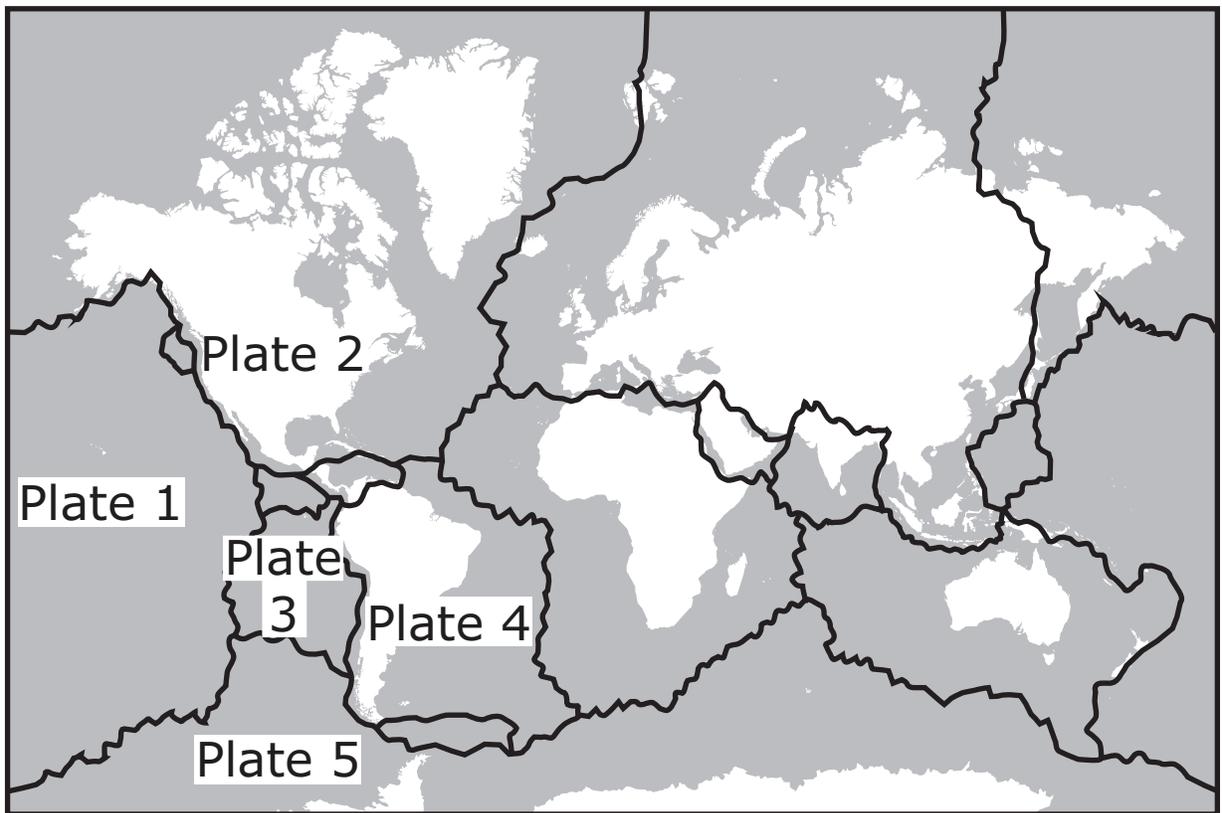
ETS Item Code: TAS01S0359	Content: Science
Item ID: 1195	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.7.6	AAT or UC: AAT
Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.	
AAT or UC Text: Identify the result of movements of sections of Earth's crust (e.g., earthquakes, mountain building, volcanoes, and sea floor spreading).	
Category: The Earth	
Correct Answer: B,A,A	

This is about how Earth's crust is always changing.

Tectonic plates cover Earth. The plates are always in motion.

Point to the map.

[For all students, read "This map shows the continents of Earth. The map also shows the boundaries between tectonic plates. Tectonic plates can move closer together, move farther apart, or slide past each other."]



Point to and read each question to the student.

Are new mountains formed where Plate 1 and Plate 5 move away from each other?

A. YES

B. NO

Are volcanoes formed where Plate 3 and Plate 4 move toward each other?

A. YES

B. NO

Can earthquakes occur along the boundary of Plate 1 and Plate 2?

A. YES

B. NO

Item Information

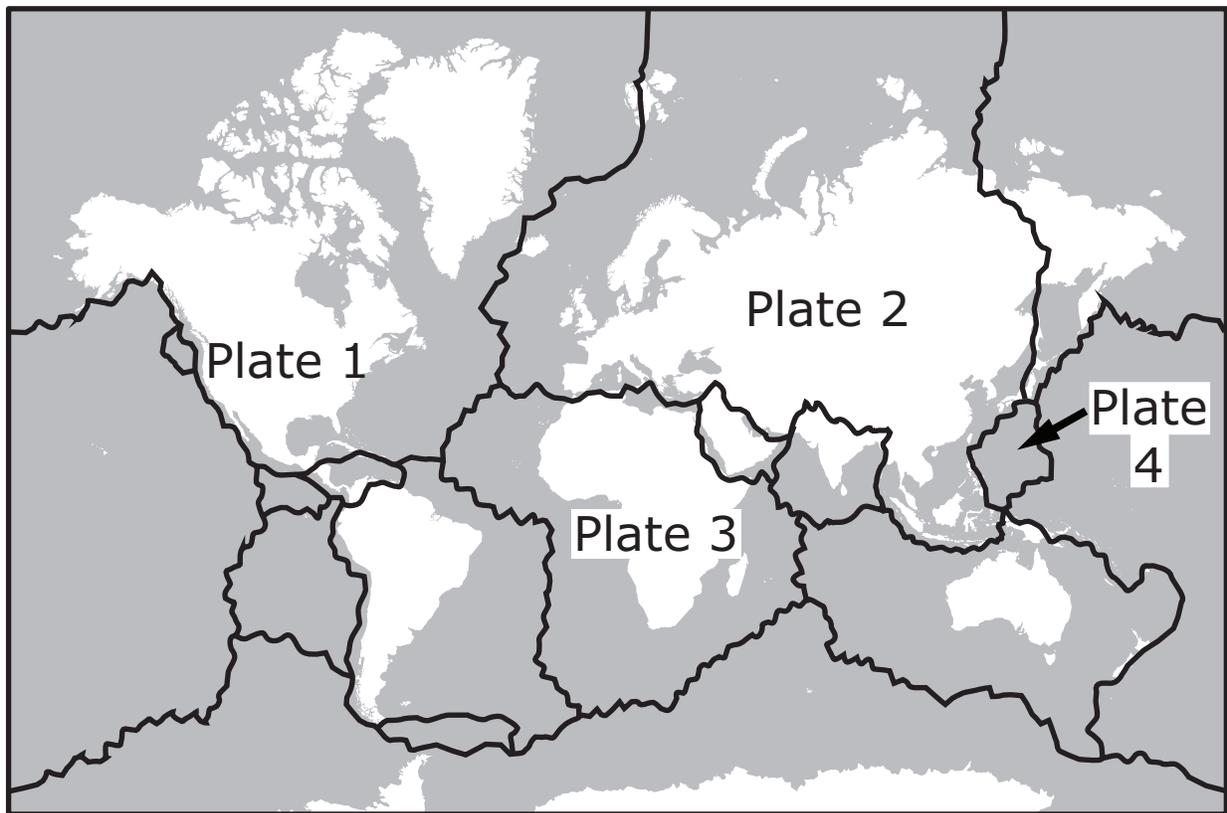
ETS Item Code: TAS01S0360	Content: Science
Item ID: 1196	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0707.7.6	AAT or UC: AAT
Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.	
AAT or UC Text: Identify the result of movements of sections of Earth's crust (e.g., earthquakes, mountain building, volcanoes, and sea floor spreading).	
Category: The Earth	
Correct Answer: A,A,A	

This is about how Earth's crust is always changing.

Tectonic plates cover Earth. The plates are always in motion.

Point to the map.

[For all students, read "This map shows the continents of Earth in white (point to each continent). The map also shows the boundaries between tectonic plates. Tectonic plates can move closer together, move farther apart, or slide past each other."]



Point to and read each question to the student.

Are new mountains formed where Plate 2 and Plate 4 move toward each other?

A. YES

B. NO

Is lava released where Plate 1 and Plate 2 move away from each other?

A. YES

B. NO

Can earthquakes occur along the boundary of Plate 2 and Plate 3?

A. YES

B. NO

Item Information

ETS Item Code: TAS02S0645

Content: Science

Item ID:

Grade: 07

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0707.7.6

AAT or UC: UC

Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.

AAT or UC Text: Recognize a description of a process such as an earthquake, flood, or volcanic eruption that can change the surface of the Earth.

Category: The Earth

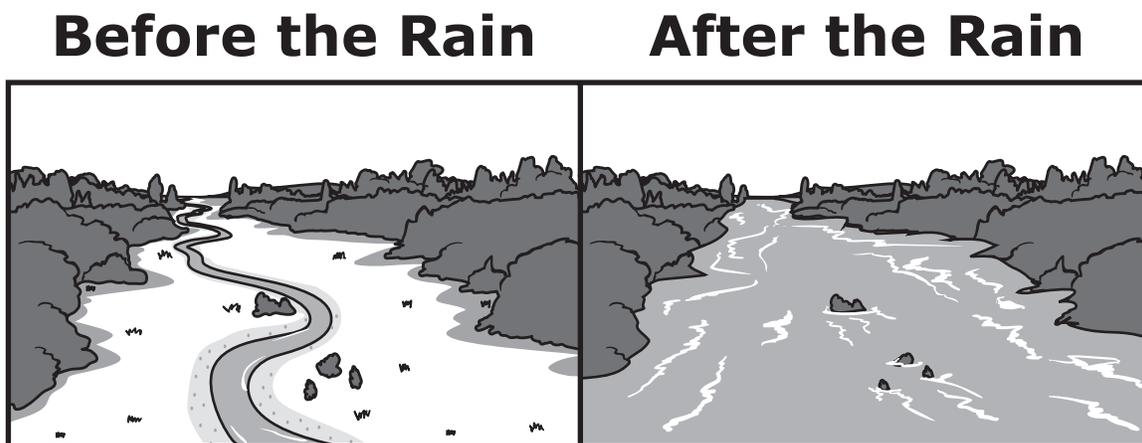
Correct Answer: B

This is about a change to Earth's surface.

Changes to Earth's surface happen in many different ways.

Point to the diagram.

[For all students, read "This diagram shows a river valley before and after heavy rains. (Point to the first box.) Before the rain, the banks of the river, the grassy areas, and the forest are shown. (Point to the second box.) After the rain, there is so much water that only the river and the forest can be seen."]



What happened to the river valley after the rain?

Point to and read each option to the student.

- A. The rain caused an earthquake in the river valley.
- B. The rain caused a flood in the river valley.

Item Information

ETS Item Code: TAS02S0646

Content: Science

Item ID:

Grade: 07

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0707.7.6

AAT or UC: AAT

Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.

AAT or UC Text: Identify the result of movements of sections of Earth's crust (e.g., earthquakes, mountain building, volcanoes, and sea floor spreading).

Category: The Earth

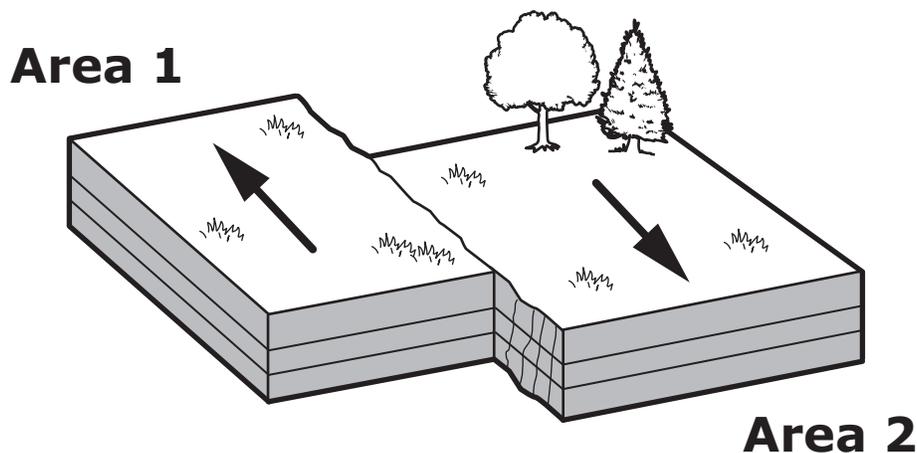
Correct Answer: A

This is about the movement of Earth's crust.

Tectonic plates cover the Earth. The plates are always in motion. This motion causes changes on Earth's surface. Sometimes the plates move under the ocean. Sometimes the plates move within a landmass.

Point to the diagram.

[For all students, read "This is a diagram of two areas of land moving in different directions (point to Area 1). Area 1 is sliding in one direction and Area 2 (point to Area 2) is sliding in the opposite direction."]



What happens when Area 1 and Area 2 slide past each other?

Point to and read each option to the student.

- A. An earthquake occurs.
- B. A volcano erupts.
- C. A mountain forms.

Item Information

ETS Item Code: TAS02S0647

Content: Science

Item ID:

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0707.7.6

AAT or UC: AAT

Standard Text: Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.

AAT or UC Text: Identify the result of movements of sections of Earth's crust (e.g., earthquakes, mountain building, volcanoes, and sea floor spreading).

Category: The Earth

Correct Answer: B,B,A

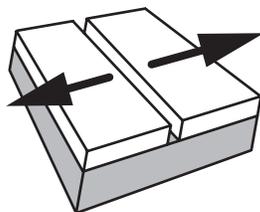
This is about the movement of Earth's crust.

Tectonic plates cover the Earth. The plates are always in motion. This motion causes changes to Earth's surface.

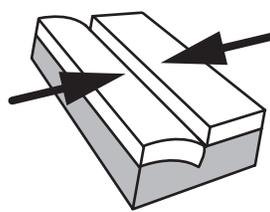
Point to the two diagrams.

[For all students, read "Diagram 1 (point to Diagram 1) shows two tectonic plates moving away from each other. Diagram 2 (point to Diagram 2) shows two tectonic plates moving toward each other. One tectonic plate is sliding under the other plate."]

**Diagram
1**



**Diagram
2**



Use this information to answer the questions.

Point to and read each question to the student.

Which diagram shows movement that makes a volcano?

- A. Diagram 1 B. Diagram 2

Which diagram shows movement that builds mountains?

- A. Diagram 1 B. Diagram 2

Which diagram shows movement of the spreading seafloor?

- A. Diagram 1 B. Diagram 2

Item Information

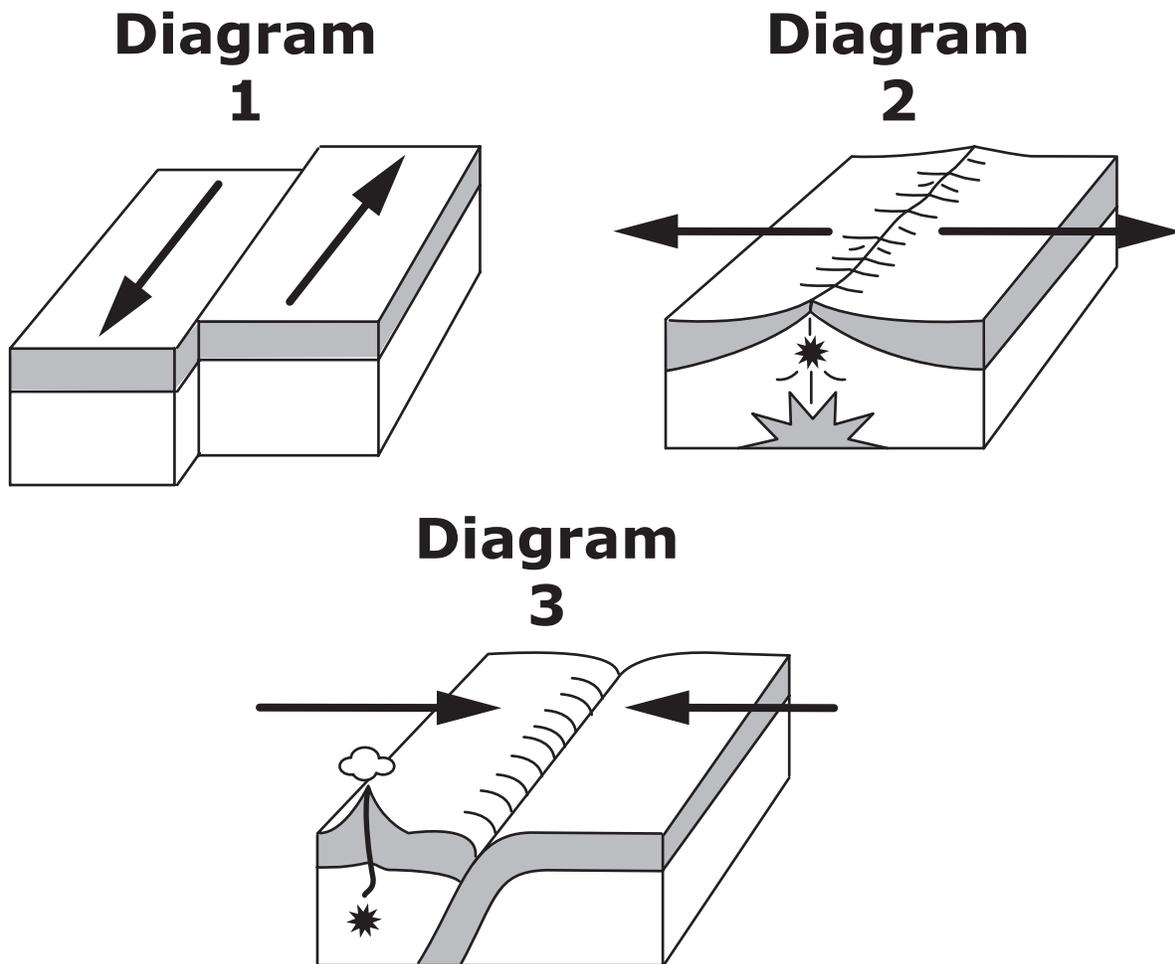
ETS Item Code:	TAS02S0648	Content:	Science
Item ID:		Grade:	07
DOK Level:	4	Item Type:	MP
Level:	3b	Points:	3
Standard Code:	0707.7.6	AAT or UC:	AAT
Standard Text:	Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.		
AAT or UC Text:	Identify the result of movements of sections of Earth's crust (e.g., earthquakes, mountain building, volcanoes, and sea floor spreading).		
Category:	The Earth		
Correct Answer:	B,B,A		

This is about the movement of Earth's crust.

Tectonic plates cover the Earth. The plates are always in motion. This motion causes changes to Earth's surface.

Point to the three diagrams.

[For all students, read "Diagram 1 (point to Diagram 1) shows two tectonic plates sliding in opposite directions past each other. Diagram 2 (point to Diagram 2) shows two tectonic plates moving away from each other. Diagram 3 (point to Diagram 3) shows two tectonic plates moving toward each other. One tectonic plate is sliding under the other plate."]



Use this information to answer the questions.

Point to and read each question to the student.

What is happening in Diagram 1?

A. volcanic eruption

B. earthquake

What is happening in Diagram 2?

A. mountain building

B. seafloor spreading

What is happening in Diagram 3?

A. volcanic eruption

B. seafloor spreading

Item Information

ETS Item Code: TAS01S0361

Content: Science

Item ID: 1197

Grade: 07

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0707.7.7

AAT or UC: UC

Standard Text: Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.

AAT or UC Text: Identify resources in Tennessee that are important for human life (e.g., limestone, coal, oil, natural gas, timber, tomatoes, potatoes, sweet potatoes, etc.).

Category: The Earth

Correct Answer: B

This is about resources found in Tennessee.

Tennessee has many types of natural resources. These resources are used as building materials, food, or sources of energy.

Which natural resource do humans use as a source of food?

Point to and read each option to the student.

A. limestone rock

B. tomatoes

Item Information

ETS Item Code: TAS01S0362

Content: Science

Item ID: 1198

Grade: 07

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0707.7.7

AAT or UC: AAT

Standard Text: Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.

AAT or UC Text: Recognize ways in which humans impact the environment (e.g., agriculture, pollution, recycling, growth of cities).

Category: The Earth

Correct Answer: C

This is about humans and the environment.

Water is important for survival. Rivers are often a community's only source of fresh water. River water needs to be protected so that it does not become polluted.

Which of these is the best way to protect a river from pollution?

Point to and read each option to the student.

- A. repaving a road next to a river
- B. building a factory next to a river
- C. planting trees next to a river

Item Information

ETS Item Code: TAS01S0363	Content: Science
Item ID: 1199	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.7.7	AAT or UC: AAT
Standard Text: Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.	
AAT or UC Text: Recognize ways in which humans impact the environment (e.g., agriculture, pollution, recycling, growth of cities).	
Category: The Earth	
Correct Answer: B,B,A	

This is about humans and the environment.

Soil is an important part of the environment. It provides nutrients for plant growth. Soil is a habitat for many different organisms. Soil helps control the flow of water along Earth's surface.

Answer the following questions.

Point to and read each question to the student.

Will cutting down forests protect soil?

A. YES

B. NO

Will spraying grass with chemicals to prevent weeds from growing protect soil?

A. YES

B. NO

Will stopping animals from eating all the plants protect soil?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0364

Content: Science

Item ID: 1200

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0707.7.7

AAT or UC: AAT

Standard Text: Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.

AAT or UC Text: Recognize ways in which humans impact the environment (e.g., agriculture, pollution, recycling, growth of cities).

Category: The Earth

Correct Answer: A,A,B

This is about humans and the environment.

Wetlands are an important part of the environment. Wetlands are habitats for many different organisms that live on the land and in the water.

Point to the picture.

[For all students, read "This picture shows a wetland. Wetlands are home to many different types of plants and animals."]



Identify ways to protect wetlands.

Point to and read each question to the student.

Will teaching people about the importance of wetlands help protect these areas?

A. YES

B. NO

Will cleaning up trash in a wetland help protect that area?

A. YES

B. NO

Will building a new road through a wetland protect that area?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0297

Content: Science

Item ID: 1161

Grade: 07

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0707.11.3

AAT or UC: UC

Standard Text: Apply proper equations to solve basic problems pertaining to distance, time, speed, and velocity.

AAT or UC Text: Match a directly proportional relationship pertaining to speed with the movement of an object (e.g., if the ball takes more time to roll down the ramp, the ball is rolling slower).

Category: Motion

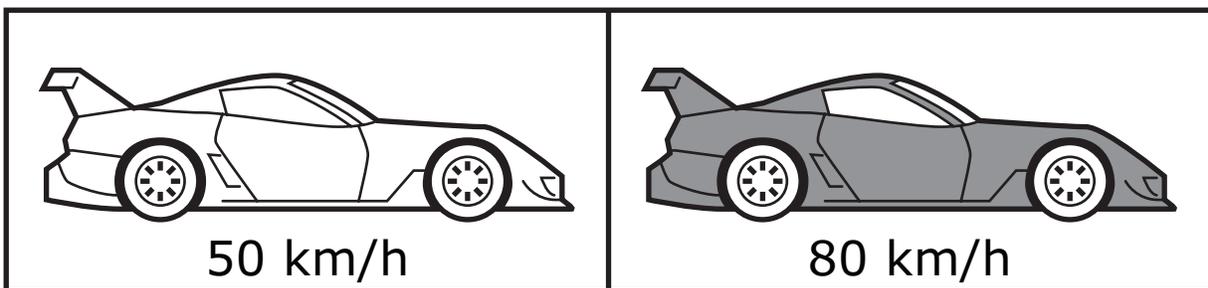
Correct Answer: B

This is about speed and movement.

Two cars race the same distance around a track.

Point to the picture.

[For all students, read "This is a picture of two cars in a race. The cars began at the same spot. (Point to the first car.) The first car traveled at 50 kilometers per hour. (Point to the second car.) The second car traveled at 80 kilometers per hour."]



Which car crossed the finish line first?

Point to and read each option to the student.

- A. the car traveling 50 km/h
- B. the car traveling 80 km/h

Which statement explains the relationship between these jogging and walking speeds?

Point to and read each option to the student.

- A. Jogging is half as fast as walking.
- B. Jogging is two times as fast as walking.
- C. Jogging is three times as fast as walking.

Use the data table to answer the questions.

Point to and read each question to the student.

Is Karen the slowest runner?

A. YES

B. NO

Is Ted the fastest runner?

A. YES

B. NO

Did Sally and Mark run at the same speed?

A. YES

B. NO

Use the data table to answer the questions.

Point to and read each question to the student.

Is Mary the fastest runner? A. YES B. NO

Is Ben the slowest runner? A. YES B. NO

Did James and Anna run at
different speeds? A. YES B. NO

Item Information

ETS Item Code: TAS01S0301

Item ID: 1165

DOK Level: 2

Level: 1

Standard Code: 0707.11.4

Standard Text: Identify and explain how Newton's laws of motion relate to the movement of objects.

AAT or UC Text: Recognize that a heavier object requires more force to set it in motion.

Category: Motion

Correct Answer: A

Content: Science

Grade: 07

Item Type: SR

Points: 1

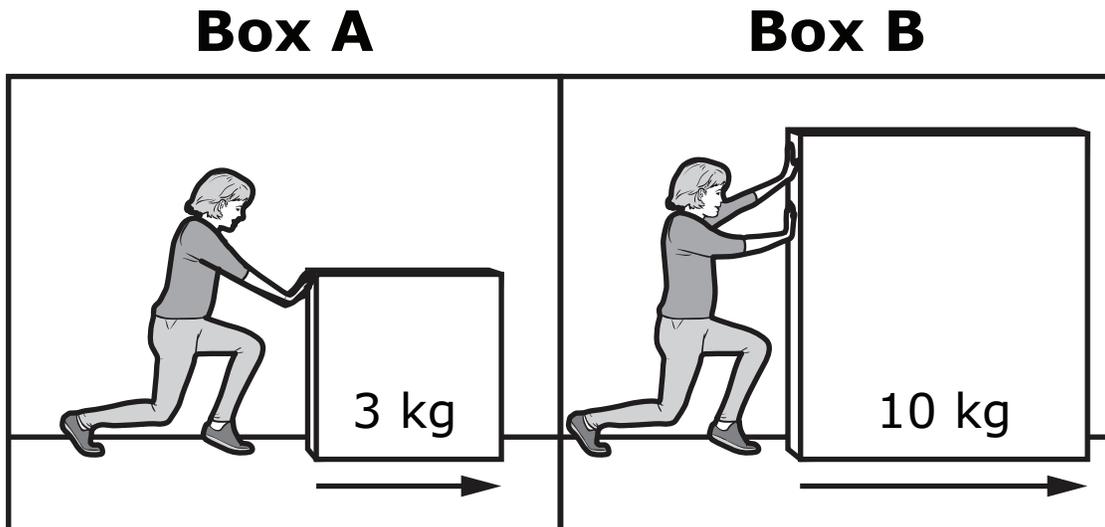
AAT or UC: UC

This is about force.

A force is a push or pull of any object.

Point to the diagram.

[For all students, read "This diagram shows how force can be used to move boxes. A girl pushes a box with a mass of 3 kilograms across the floor (Point to 'Box A'). A girl pushes a box with a mass of 10 kilograms across the floor (Point to 'Box B')."]



Which of these will allow the girl to push the box that has more mass?

Point to and read each option to the student.

- A. more force
- B. less force

Item Information

ETS Item Code: TAS02S0729

Content: Science

Item ID:

Grade: 07

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0707.11.4

AAT or UC: AAT

Standard Text: Identify and explain how Newton's laws of motion relate to the movement of objects.

AAT or UC Text: Predict the change in acceleration of objects of different masses based on equal forces acting on those objects (e.g. A tennis ball and a bowling ball are kicked with the same amount of force. Which ball is going to move slower and go a shorter distance?).

Category: Motion

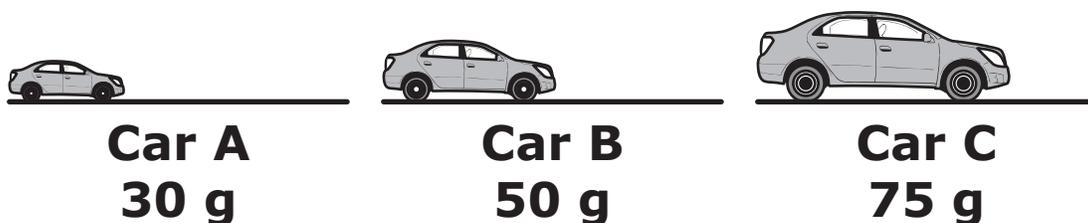
Correct Answer: A

This is about force and motion.

A student compares the speed three cars will travel across a smooth surface. The cars have different masses. All three cars are pushed with the same amount of force across the same surface.

Point to the diagram.

[For all students, read "The diagram shows three model cars. Car A has a mass of 30 grams. Car B has a mass of 50 grams. Car C has a mass of 75 grams."]



Which car will travel the fastest across the surface?

Point to and read each option to the student.

- A. Car A
- B. Car B
- C. Car C

Item Information

ETS Item Code: TAS01S0303

Content: Science

Item ID: 1167

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0707.11.4

AAT or UC: AAT

Standard Text: Identify and explain how Newton's laws of motion relate to the movement of objects.

AAT or UC Text: Predict the change in acceleration of objects of different masses based on equal forces acting on those objects (e.g. A tennis ball and a bowling ball are kicked with the same amount of force. Which ball is going to move slower and go a shorter distance?).

Category: Motion

Correct Answer: B,A,B

This is about acceleration and mass.

Acceleration occurs when an object in motion speeds up or slows down. The amount of force and the mass of an object affect how much that object can accelerate.

Identify which object will have greater acceleration.

Point to and read each question to the student.

[For all students, read "Object A is a picture of a student kicking a soccer ball. Object B is a picture of a student kicking a tennis ball. The student kicks each ball with the same amount of force."]

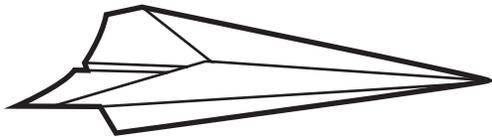
Object A**Object B**

Will Object A or Object B have greater acceleration?

- A. Object A B. Object B

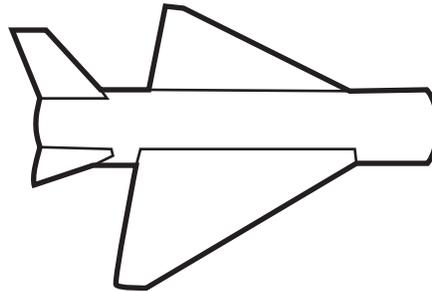
[For all students, read "Object A is a paper airplane with a mass of 5 grams. Object B is a cardboard airplane with a mass of 25 grams. A student throws each airplane with the same amount of force."]

Object A



5 g

Object B

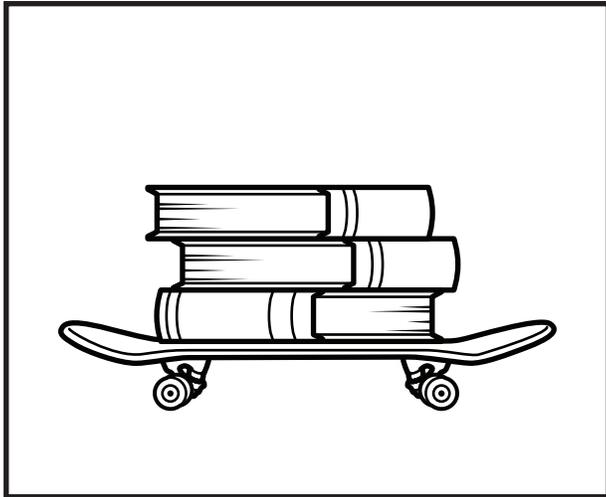
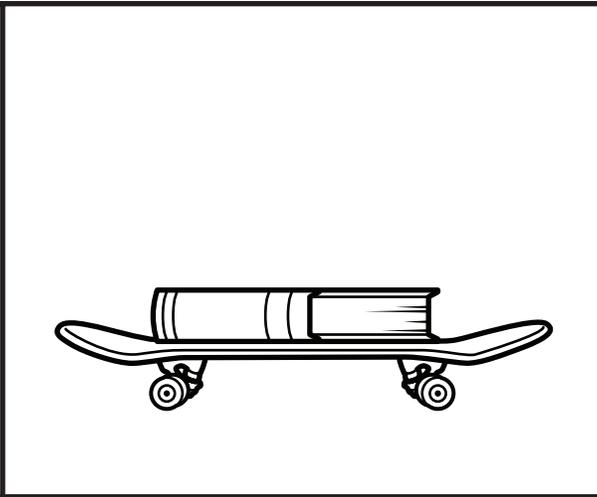


25 g

Will Object A or Object B have greater acceleration?

- A. Object A B. Object B

[For all students, read "Object A is a stack of three books on a skateboard. Object B is one book on a skateboard. A student pushes each skateboard with the same amount of force."]

Object A**Object B**

Will Object A or Object B have greater acceleration?

- A. Object A B. Object B

Item Information

ETS Item Code: TAS01S0304

Content: Science

Item ID: 1168

Grade: 07

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0707.11.4

AAT or UC: AAT

Standard Text: Identify and explain how Newton's laws of motion relate to the movement of objects.

AAT or UC Text: Predict the change in acceleration of objects of different masses based on equal forces acting on those objects (e.g. A tennis ball and a bowling ball are kicked with the same amount of force. Which ball is going to move slower and go a shorter distance?).

Category: Motion

Correct Answer: B,A,A

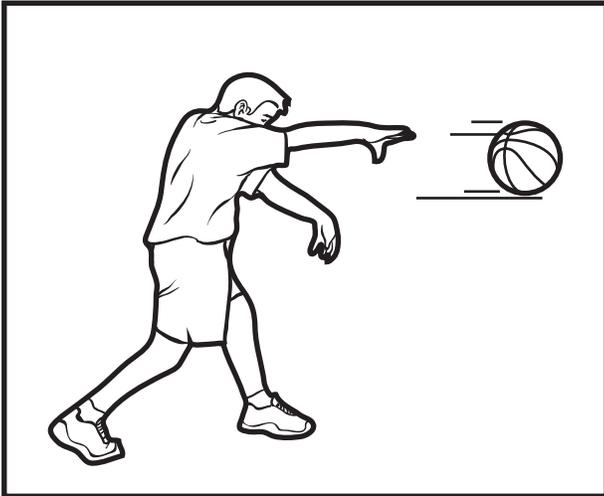
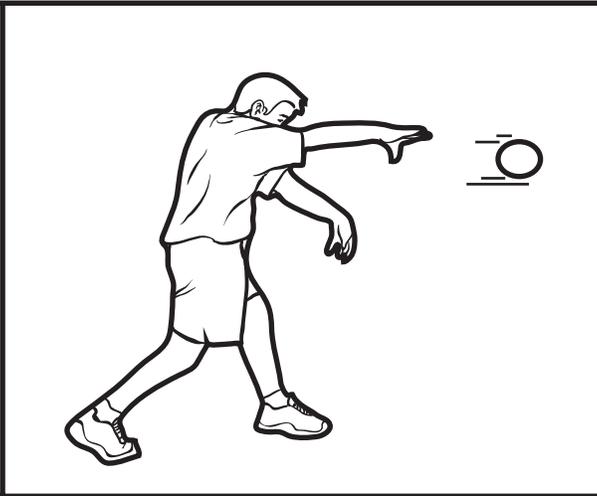
This is about acceleration.

Acceleration occurs when an object in motion speeds up or slows down. The amount of force and the mass of an object affect how much that object can accelerate.

Identify which object will have greater acceleration.

Point to and read each question to the student.

[For all students, read "Object A is a picture of a student throwing a basketball. Object B is a picture of a student throwing a small rubber ball. The student throws each ball with the same amount of force."]

Object A**Object B**

Will Object A or Object B have greater acceleration?

- A. Object A B. Object B

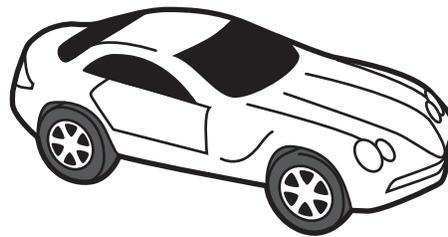
[For all students, read "Object A is a toy car with a mass of 30 grams. Object B is a toy car with a mass of 50 grams. A student pushes each car with the same amount of force."]

Object A



30 g

Object B

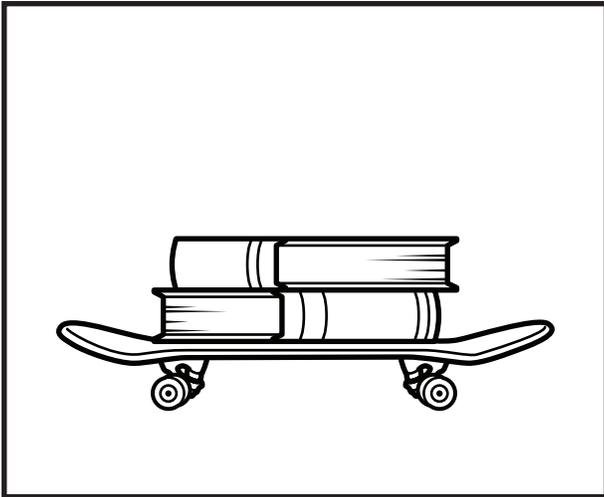
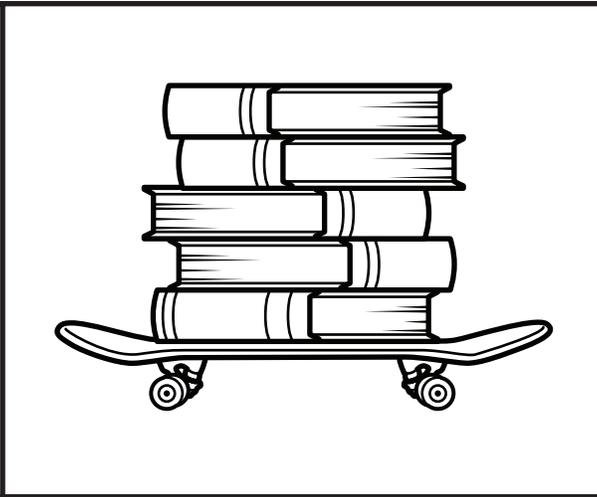


50 g

Will Object A or Object B have greater acceleration?

- A. Object A B. Object B

[For all students, read "Object A is two books on a skateboard. Object B is five books on a skateboard. A student pushes each skateboard with the same amount of force."]

Object A**Object B**

Will Object A or Object B have greater acceleration?

- A. Object A B. Object B

Tennessee Comprehensive
Assessment Program TCAP
Grade 7 Science
Alternative Assessment
Item Release
Spring 2018



Tennessee Comprehensive Assessment Program

TCAP

Grade 8 Science Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Grade 8 Science ALT Items

Item Information

ETS Item Code: TAS01S0385	Content: Science
Item ID: 1233	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.5.2	AAT or UC: UC
Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.	
AAT or UC Text: Match organisms to their habitats.	
Category: Biodiversity and Change	
Correct Answer: B	

This is about organisms and habitats.

Plants and animals live in habitats. Different habitats provide food and shelter for different kinds of animals.

Which animal would live in a desert habitat?

Point to and read each option to the student.

- A. seal
- B. snake

Item Information

ETS Item Code: TAS01S0386	Content: Science
Item ID: 1234	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.5.2	AAT or UC: AAT
Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.	
AAT or UC Text: Identify factors in the environment that influence growth of organisms.	
Category: Biodiversity and Change	
Correct Answer: C	

This is about living organisms.

Burrowing owls are living organisms. Burrowing owls live in grasslands and deserts. They hunt during the day. At night, burrowing owls gather in underground dens.

Point to the picture.

[For all students, read "This is a burrowing owl."]



Which of these helps young burrowing owls grow?

Point to and read each option to the student.

- A. the time that the sun rises
- B. the size of the family den
- C. the number of insects eaten

Item Information

ETS Item Code: TAS01S0387

Item ID: 1235

DOK Level: 4

Level: 3a

Standard Code: 0807.5.2

Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.

AAT or UC Text: Identify factors in the environment that influence growth of organisms.

Category: Biodiversity and Change

Correct Answer: A,B,A

Content: Science

Grade: 08

Item Type: MP

Points: 3

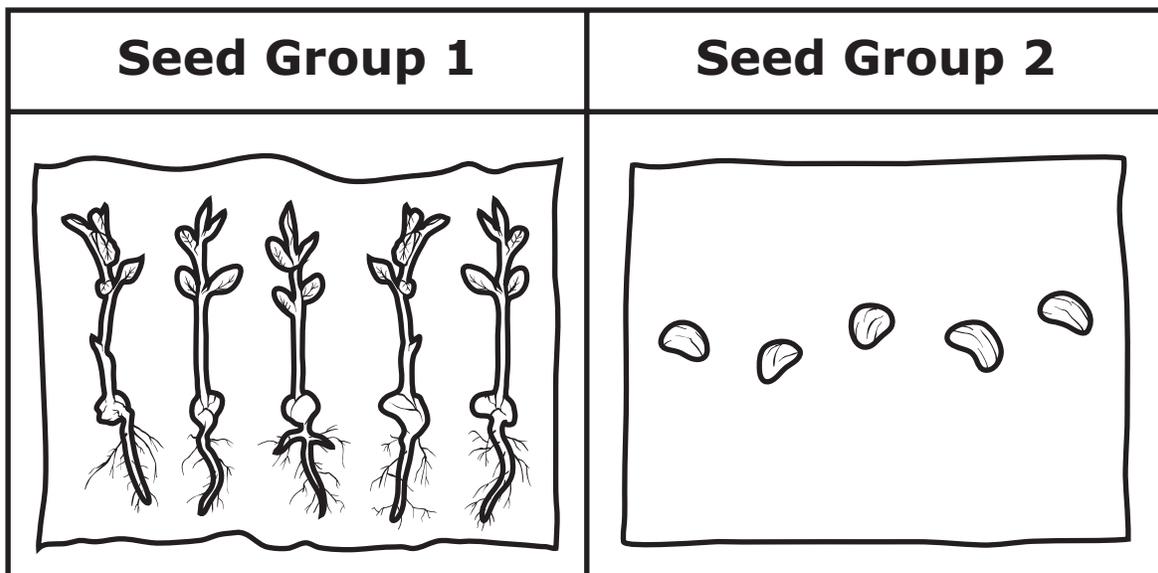
AAT or UC: AAT

This is about living organisms.

Living organisms need many things to grow and survive.

Point to the diagram.

[For all students, read "This diagram shows the results of a seed investigation. Seed Group 1 contained 5 seeds (point to 'Seed Group 1'). These seeds were placed on a damp paper towel. Seed Group 2 contained 5 seeds (point to 'Seed Group 2'). These seeds were placed on a dry paper towel."]



Use this information to answer these questions.

Point to and read each question to the student.

Did the seeds on the wet paper towel grow?

A. YES

B. NO

Did the seeds on the dry paper towel grow?

A. YES

B. NO

Do seeds need water to grow?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0388

Item ID: 1236

DOK Level: 4

Level: 3b

Standard Code: 0807.5.2

Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.

AAT or UC Text: Identify factors in the environment that influence growth of organisms.

Category: Biodiversity and Change

Correct Answer: B,A,A

Content: Science

Grade: 08

Item Type: MP

Points: 3

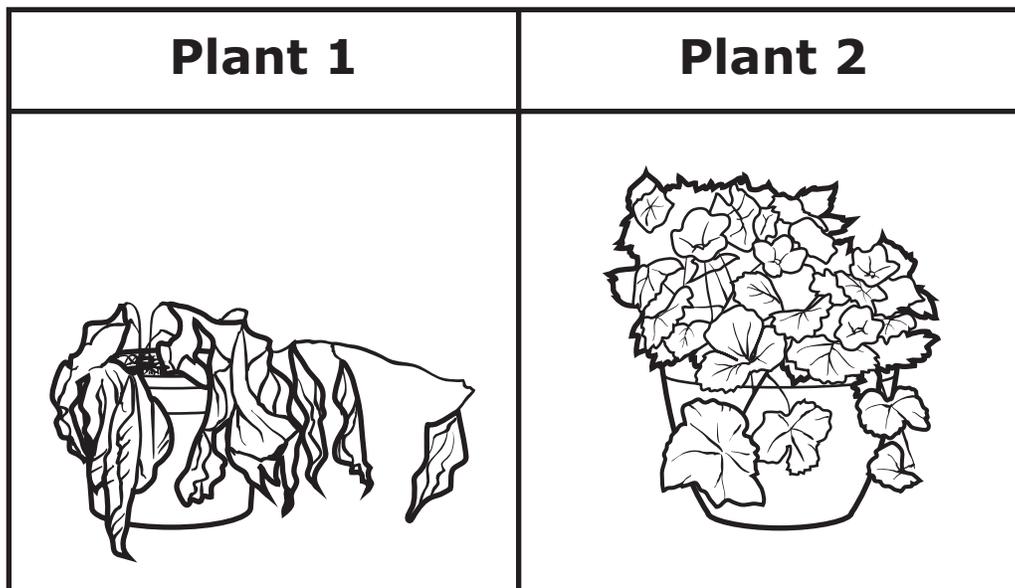
AAT or UC: AAT

This is about living organisms.

Living organisms need many things to grow and survive.

Point to the picture.

[For all students, read "This is a picture of two plants of the same type. The plants were the same size at the beginning of the investigation. Plant 1 (point to 'Plant 1') was kept in a dark room. Plant 2 (point to 'Plant 2') was kept outside."]



Answer the following questions.

Point to and read each question to the student.

Did Plant 1 receive enough light to grow?

A. YES

B. NO

Did Plant 2 receive enough light to grow?

A. YES

B. NO

Do plants require sunlight for growth?

A. YES

B. NO

Item Information

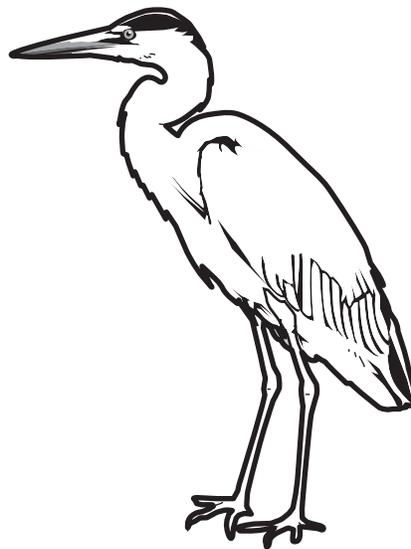
ETS Item Code: TAS02S0669	Content: Science
Item ID:	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.5.2	AAT or UC: UC
Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.	
AAT or UC Text: Match organisms to their habitats.	
Category: Biodiversity and Change	
Correct Answer: A	

This is about organisms and habitats.

Habitats are homes to plants and animals. Animals have features that help them find food and shelter in their habitat.

Point to the picture.

[For all students, read "This is a picture of a heron. A heron is a bird with long, skinny legs. Herons eat fish and insects."]



Which habitat is **most** likely the home for a heron?

Point to and read each option to the student.

- A. a wetland pond
- B. a dry desert

Item Information

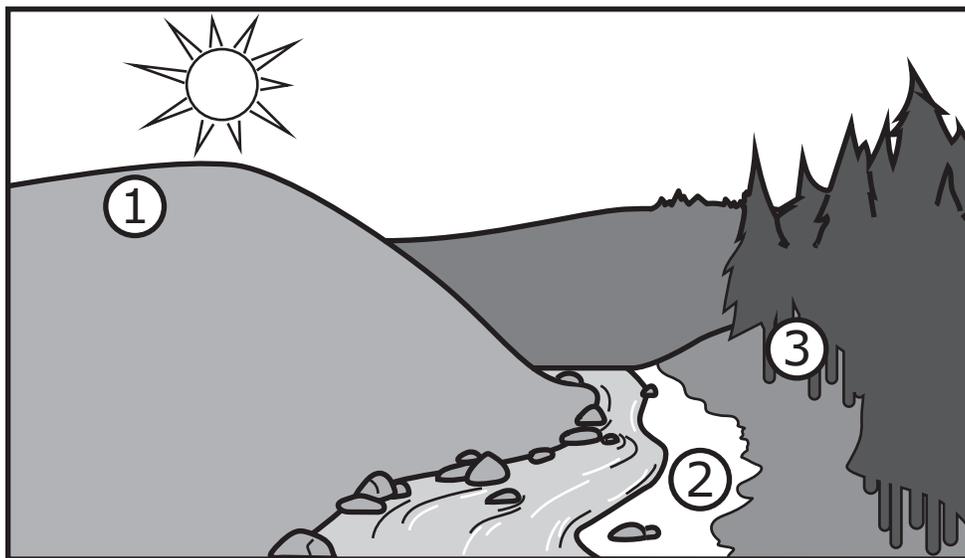
ETS Item Code: TAS02S0670	Content: Science
Item ID:	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.5.2	AAT or UC: AAT
Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.	
AAT or UC Text: Identify factors in the environment that influence growth of organisms.	
Category: Biodiversity and Change	
Correct Answer: A	

This is about organisms and growth.

A gardener wants to plant a flower garden. The plants in the flower garden need a lot of sunshine and very little water.

Point to the diagram.

[For all students, read "This is the area where the gardener can plant the new garden. The gardener can plant the garden on the grassy hilltop (point to the number 1). The gardener can plant the garden on the sandy beach along the river (point to the number 2). The gardener can plant the garden in the thick forest (point to the number 3)."]



Which location will **best** help the garden grow?

Point to and read each option to the student.

- A. 1
- B. 2
- C. 3

Item Information

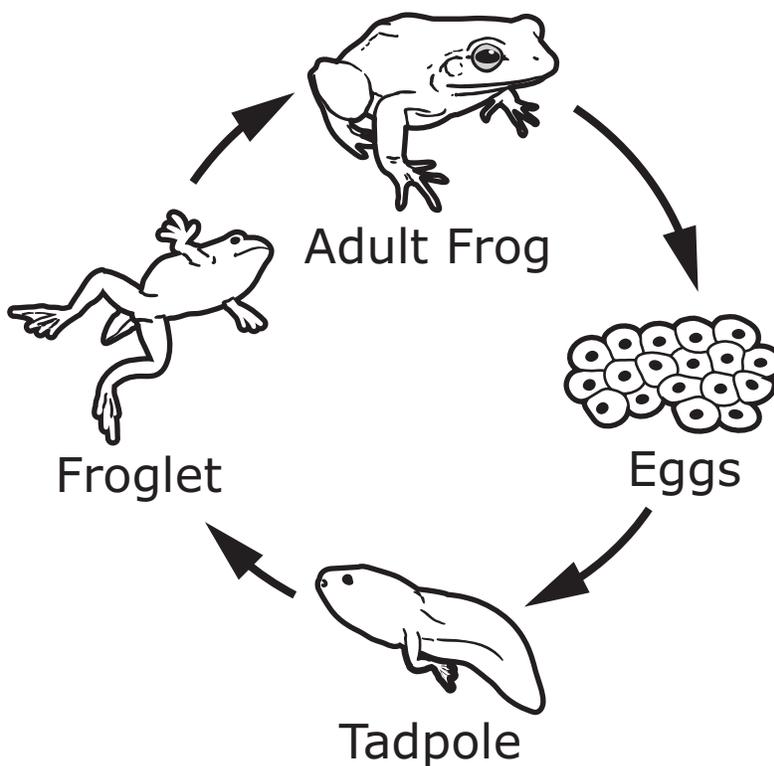
ETS Item Code: TAS02S0671	Content: Science
Item ID:	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.5.2	AAT or UC: AAT
Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.	
AAT or UC Text: Identify factors in the environment that influence growth of organisms.	
Category: Biodiversity and Change	
Correct Answer: B,A,A	

This is about organisms and growth.

Point to the diagram.

[For all students, read "This diagram shows how a frog grows from an egg into an adult frog. Adult frogs lay their eggs underwater (point to the eggs). When the eggs hatch, tiny tadpoles swim out into the water. The tadpole (point to the tadpole) spends a lot of time growing. The tadpole develops legs and slowly loses its tail. The tadpole becomes a froglet (point to the froglet). The froglet grows into an adult frog (point to the adult frog)."]

Life Cycle of a Frog



Use this information to answer the questions.

What does a tadpole need to grow into a healthy frog?

Point to and read each question to the student.

Does a tadpole need light to grow?

A. YES

B. NO

Does a tadpole need to live in water to grow?

A. YES

B. NO

Does a tadpole need food to grow?

A. YES

B. NO

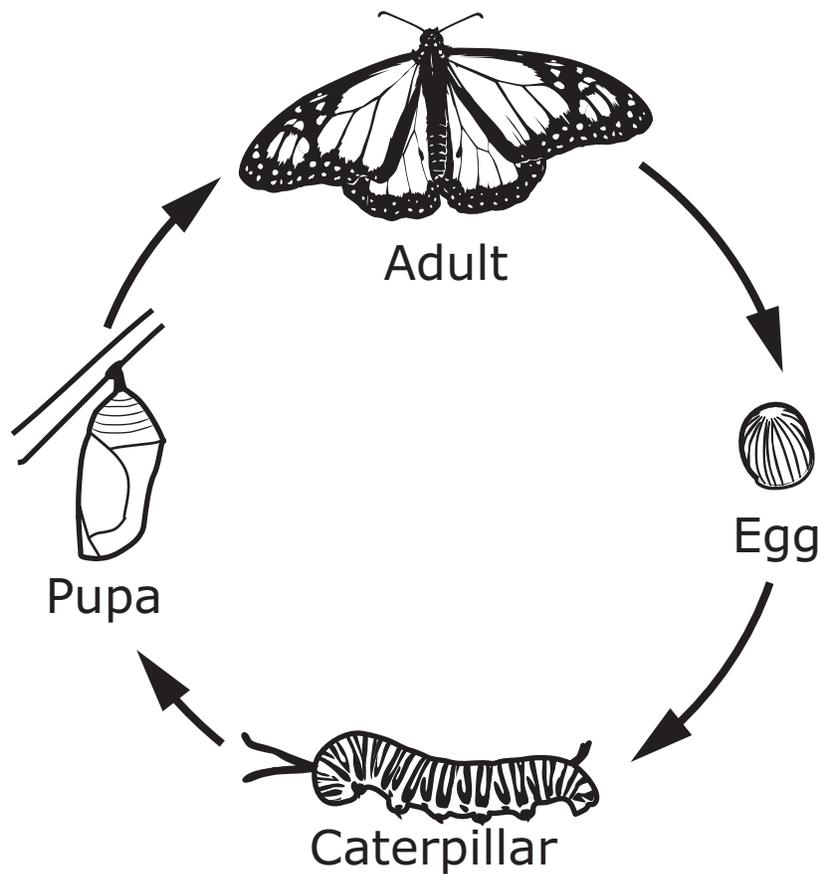
Item Information

ETS Item Code: TAS02S0672	Content: Science
Item ID:	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.5.2	AAT or UC: AAT
Standard Text: Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.	
AAT or UC Text: Identify factors in the environment that influence growth of organisms.	
Category: Biodiversity and Change	
Correct Answer: A,B,A	

This is about organisms and growth.

Point to the diagram.

[For all students, read "This diagram shows how a butterfly grows from an egg into an adult butterfly. Adult butterflies lay their eggs on the leaves or stems of flowering plants (point to the egg). When the eggs hatch, caterpillars crawl out (point to the caterpillar). The caterpillar spends time eating leaves and growing. The caterpillar forms into a pupa (point to the pupa) in order to turn into an adult butterfly (point to the adult butterfly)."]



Use this information to answer the questions.

What does the caterpillar need to grow into an adult butterfly?

Point to and read each question to the student.

Does the caterpillar need to eat leaves to grow?

A. YES

B. NO

Does the caterpillar need light to form a pupa?

A. YES

B. NO

Does the caterpillar need oxygen to grow?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0597

Content: Science

Item ID: 2044

Grade: 08

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0807.5.5

AAT or UC: UC

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify fossils as a way for scientists to know about the types of organisms that lived long ago

Category: Biodiversity and Change

Correct Answer: A

This is about plant fossils.

Some fossils are the remains of plants that lived a long time ago.

Which of these will allow a scientist to learn about a plant that lived long ago?

Point to and read each option to the student.

[For all students, read "This is a rock with an imprint of a fern plant."]

A.



[For all students, read "This is a fern growing in a pot."]

B.



Item Information

ETS Item Code: TAS01S0598

Content: Science

Item ID: 2045

Grade: 08

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0807.5.5

AAT or UC: AAT

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.

Category: Biodiversity and Change

Correct Answer: C

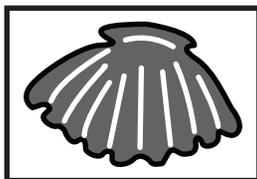
This is about fossils.

Fossils are the remains of animals and plants that lived a long time ago.

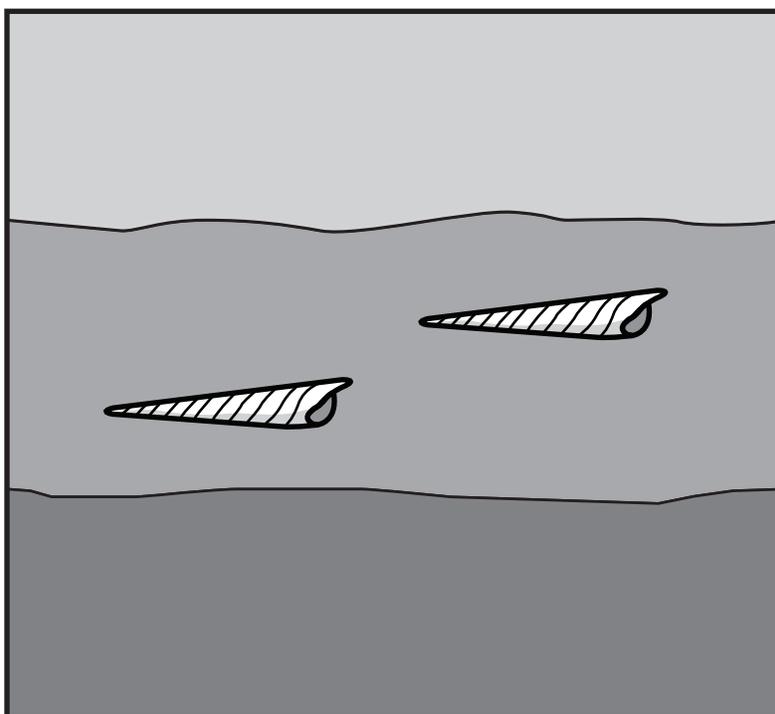
Point to the diagram.

[For all students, read "This diagram shows a shell fossil (point to the shell fossil) and a soil profile (point to the soil profile). The soil profile has three layers (point to each layer). This is the top layer (point to the top layer). The middle layer contains fossils (point to the fossils in the middle layer). This is the bottom layer (point to the bottom layer)."]

Shell Fossil



Soil Profile



The shell fossil is older than the fossils shown in the soil profile. In which layer would this shell fossil be found?

Point to and read each option to the student.

- A. the top layer
- B. the middle layer
- C. the bottom layer

Item Information

ETS Item Code: TAS01S0599

Content: Science

Item ID: 2046

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0807.5.5

AAT or UC: AAT

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.

Category: Biodiversity and Change

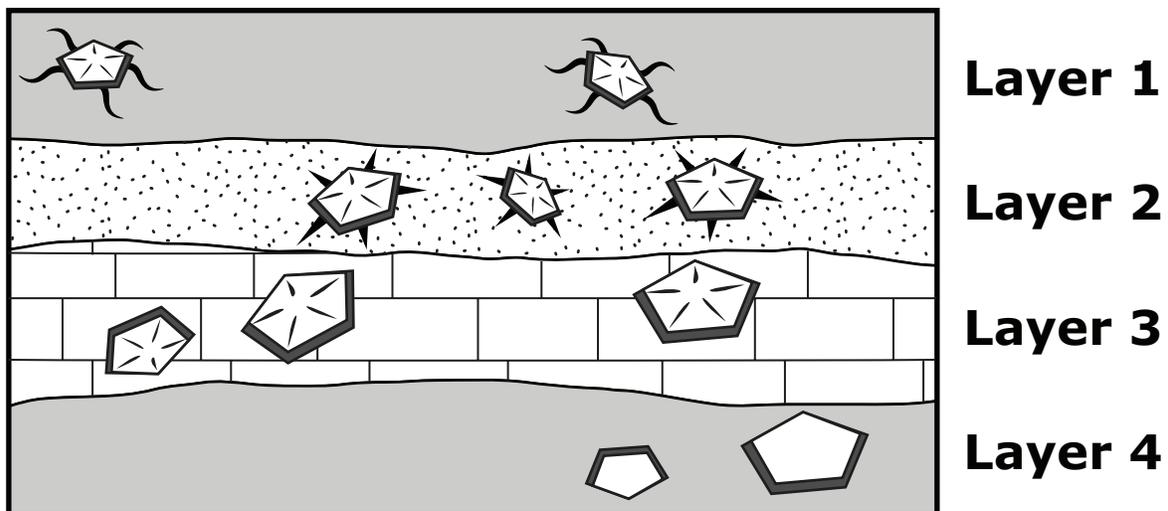
Correct Answer: B,A,A

This is about fossils.

Fossils are the remains of plants and animals that lived a long time ago.

Point to the diagram.

[For all students, read "This is a fossil diagram. Layer 1 contains fossils found near the surface of the ground (point to the top layer). Layer 2 has different fossils and is found below Layer 1 (point to the second layer). Layer 3 contains more fossils and is found deep below the first and second layer (point to the third layer). Layer 4 contains fossils and is found very far below the surface (point to the bottom layer)."]



Use the information in this fossil diagram to answer the questions.

Point to and read each question to the student.

Are the fossils in Layer 2 older than the fossils in Layer 4?

A. YES

B. NO

Are the fossils in Layer 1 younger than the fossils in Layer 2?

A. YES

B. NO

Are the fossils in Layer 4 older than the fossils in Layer 3?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0600

Content: Science

Item ID: 2047

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0807.5.5

AAT or UC: AAT

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.

Category: Biodiversity and Change

Correct Answer: A,A,B

This is about fossils.

Fossils are the remains of plants and animals that lived a long time ago.

Point to the diagram.

[For all students, read "This is a fossil diagram. A mammal fossil was found near the surface of the ground (point to the mammal fossil). The layer below has reptile fossils (point to the reptile fossils). Farther down, the layer has fish fossils (point to the fish fossils). Several meters below, shell fossils (point to the shell fossils) were found within the layer. Leaf fossils (point to leaf fossils) were found in a very deep layer below the shell fossils."]

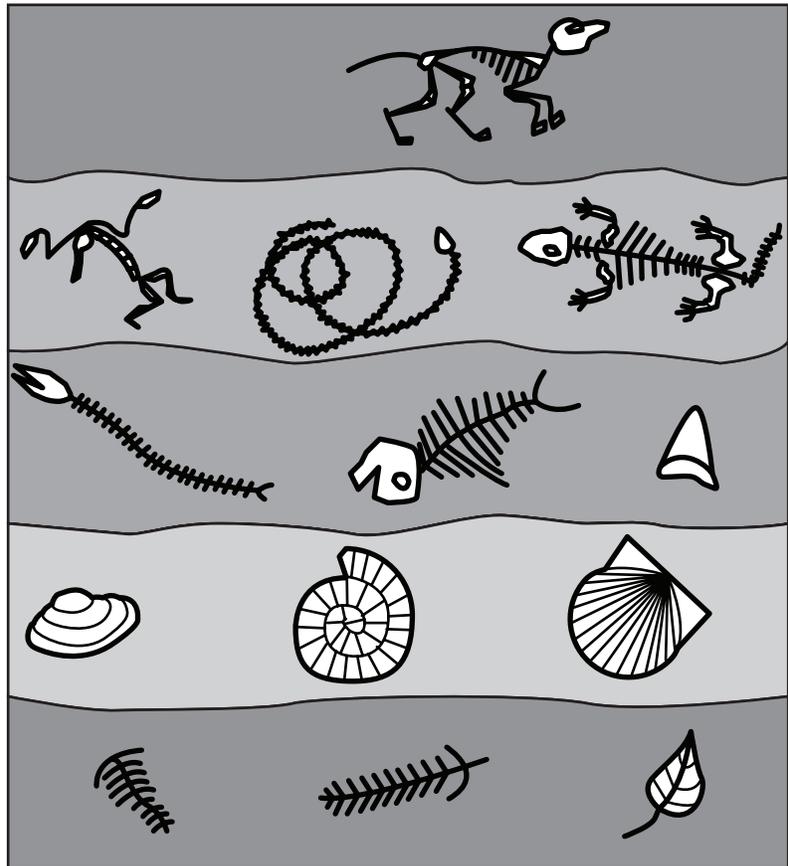
Mammal Fossil

Reptile Fossils

Fish Fossils

Shell Fossils

Leaf Fossils



Use the information in this fossil diagram to answer the questions.

Point to and read each question to the student.

Is the mammal fossil the youngest fossil in the diagram?

A. YES

B. NO

Are the leaf fossils older than the shell fossils?

A. YES

B. NO

Are the reptile fossils older than the fish fossils?

A. YES

B. NO

Item Information

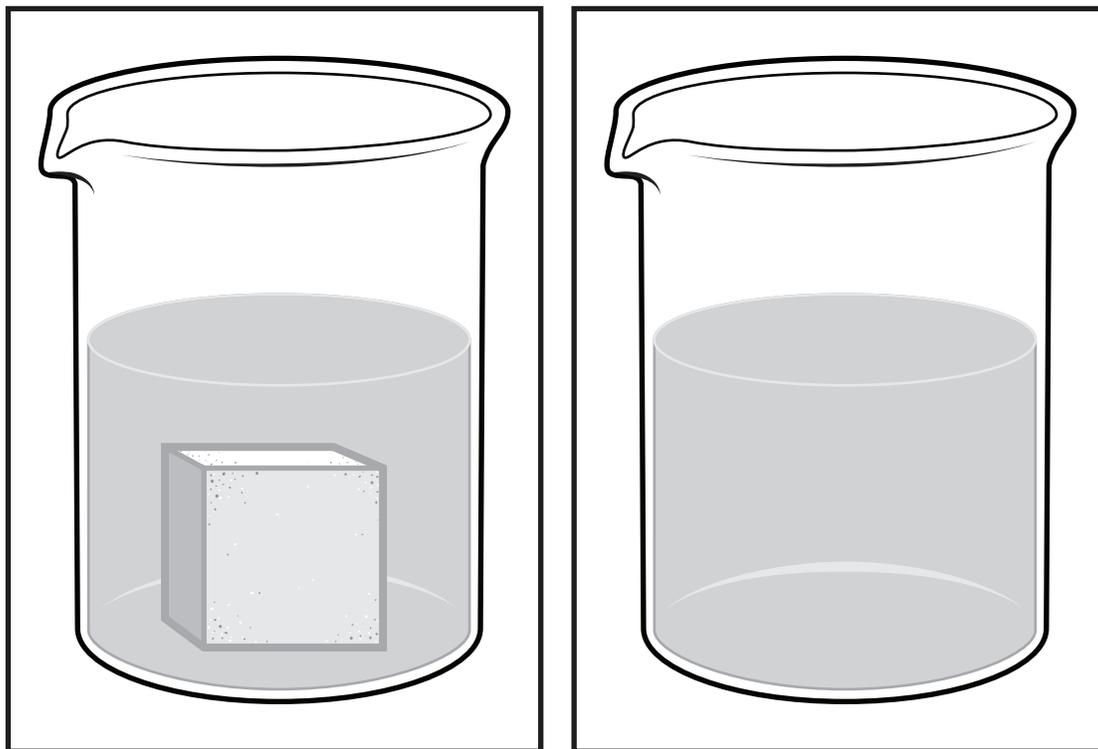
ETS Item Code: TAS01S0365	Content: Science
Item ID: 1213	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.9.1	AAT or UC: UC
Standard Text: Recognize that all matter consists of atoms.	
AAT or UC Text: Recognize that all matter can be broken down into smaller and smaller pieces until they are too small to be seen by our eyes.	
Category: Properties of Matter	
Correct Answer: B	

This is about matter.

All matter is made of tiny particles.

Point to the picture.

[For all students, read "This is a beaker containing water. A student placed a sugar cube in the beaker and stirred for several minutes (point to the sugar cube). As the student stirred, the sugar cube dissolved inside the beaker (point to the second beaker)."]



Why was the student unable to see the dissolved sugar?

Point to and read each option to the student.

- A. Sugar evaporates when dissolved in water.
- B. Sugar becomes very small when dissolved in water.

Item Information

ETS Item Code: TAS01S0366	Content: Science
Item ID: 1214	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.9.1	AAT or UC: AAT
Standard Text: Recognize that all matter consists of atoms.	
AAT or UC Text: Use a model to demonstrate that all matter consists of atoms (e.g., the observation of the inflation and shape of a balloon).	
Category: Properties of Matter	
Correct Answer: C	

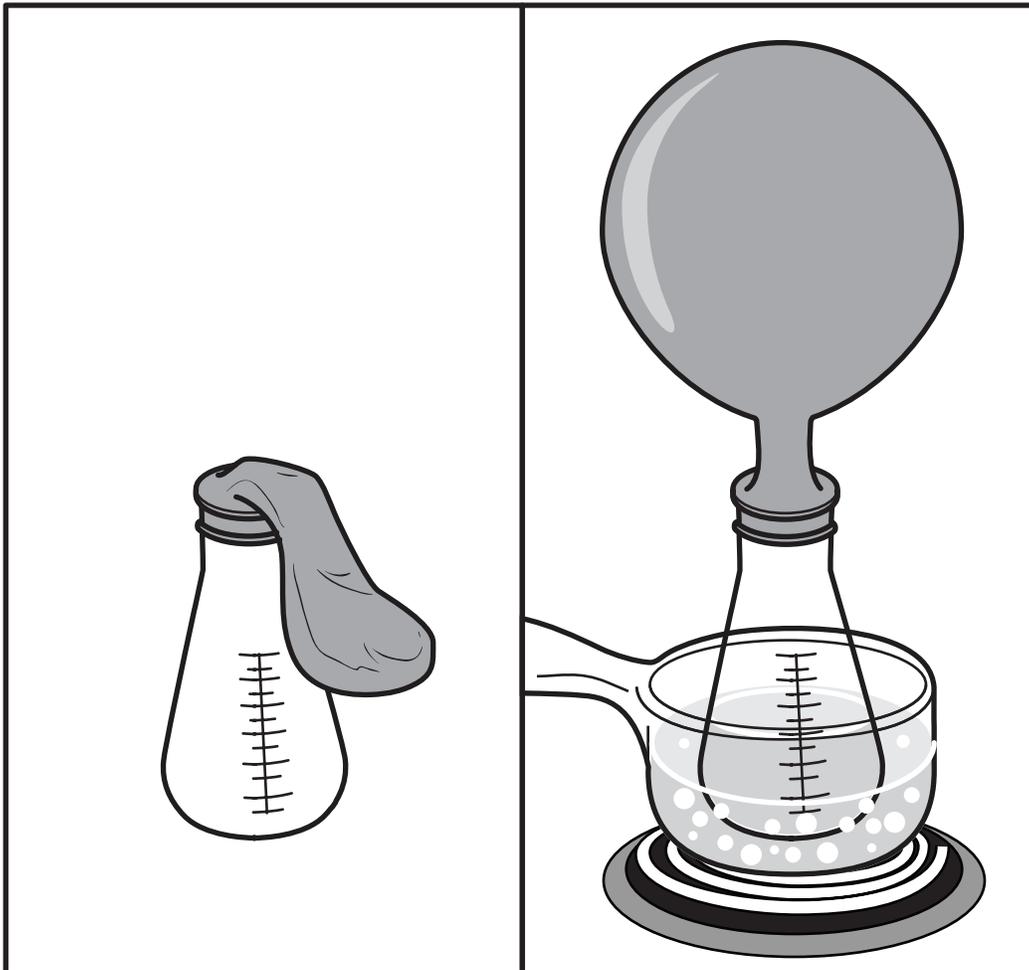
This is about atoms and matter.

All matter is made up of atoms. Water is made of hydrogen atoms and oxygen atoms.

Point to the diagram.

[For all students, read "This diagram shows an investigation setup. This is an empty flask (point to the first flask). The top of the flask is covered with an empty balloon. The flask is placed in boiling water (point to the second flask). The air in the flask heats up and the balloon inflates."]

Investigation Setup



What do the flask, the balloon, and the gas in the balloon all have in common?

Point to and read each option to the student.

- A. They are all liquids.
- B. They are all the same shape.
- C. They are all made of atoms.

Item Information

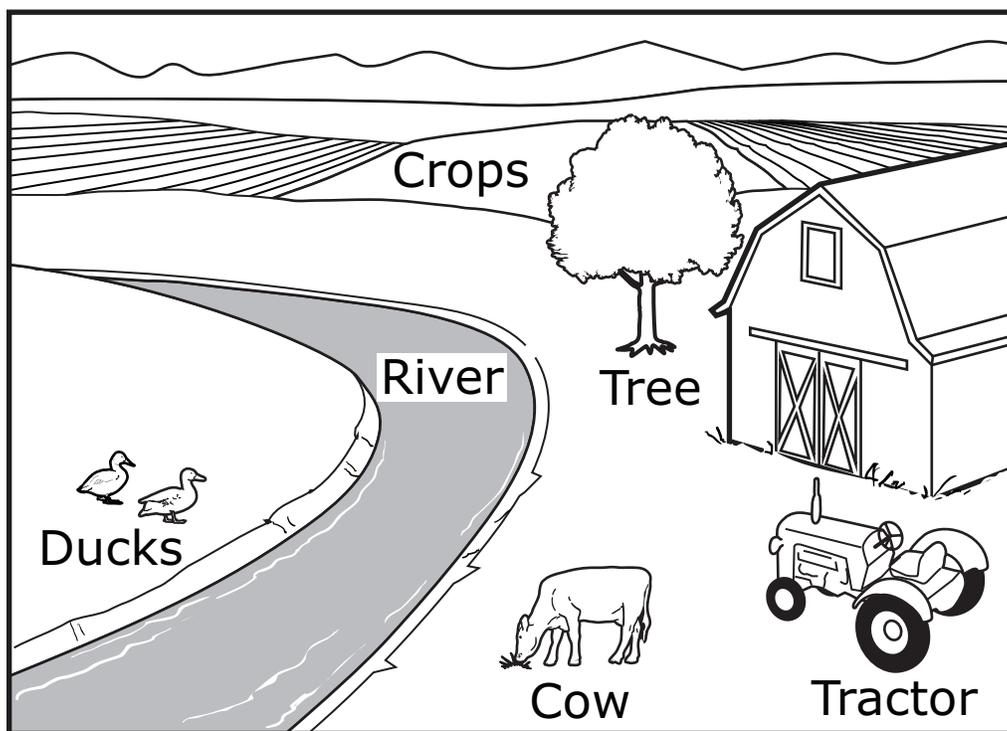
ETS Item Code: TAS01S0367	Content: Science
Item ID: 1215	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.9.1	AAT or UC: AAT
Standard Text: Recognize that all matter consists of atoms.	
AAT or UC Text: Use a model to demonstrate that all matter consists of atoms (e.g., the observation of the inflation and shape of a balloon).	
Category: Properties of Matter	
Correct Answer: A,B,A	

This is about atoms and matter.

A student made a model of a farm.

Point to the picture.

[For all students, read "This picture shows a student model of a farm. These are two ducks (point to the ducks). This is the river (point to the river). These are the crops that are grown on the farm (point to the crops). This is a tree (point to the tree). This is a cow living on the farm (point to the cow). This is a tractor (point to the tractor)."]



Use the information from the model to answer the questions.

Point to and read each question to the student.

Are the river and the cow both made of atoms?

A. YES

B. NO

Are the tractor and the crops both liquids?

A. YES

B. NO

Are the tree and the ducks made of atoms?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0368

Content: Science

Item ID: 1216

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0807.9.1

AAT or UC: AAT

Standard Text: Recognize that all matter consists of atoms.

AAT or UC Text: Use a model to demonstrate that all matter consists of atoms (e.g., the observation of the inflation and shape of a balloon).

Category: Properties of Matter

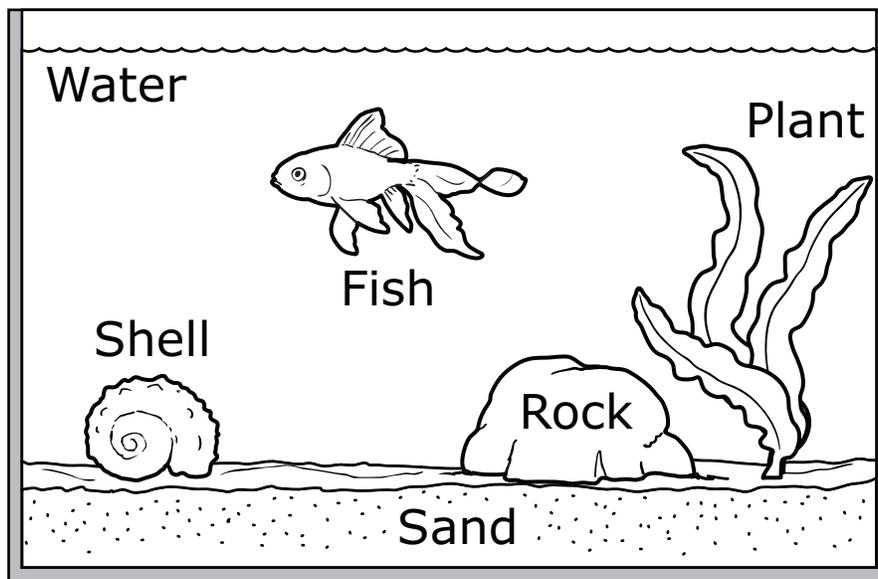
Correct Answer: B,A,A

This is about atoms and matter.

A student made a model of an aquarium.

Point to the picture.

[For all students, read "This picture shows a student model of an aquarium. This is sand at the bottom of the aquarium (point to the sand). This rock is on top of the sand (point to the rock). This is a plant (point to the plant). This is a fish (point to the fish). This is a shell (point to the shell). Water fills the aquarium (point to the water)."]



Use the information from the model to answer the questions.

Point to and read each question to the student.

Are the fish and the shell both gases?

A. YES

B. NO

Are the rock and the plant made up of atoms?

A. YES

B. NO

Is the water in the aquarium made up of atoms?

A. YES

B. NO

Item Information

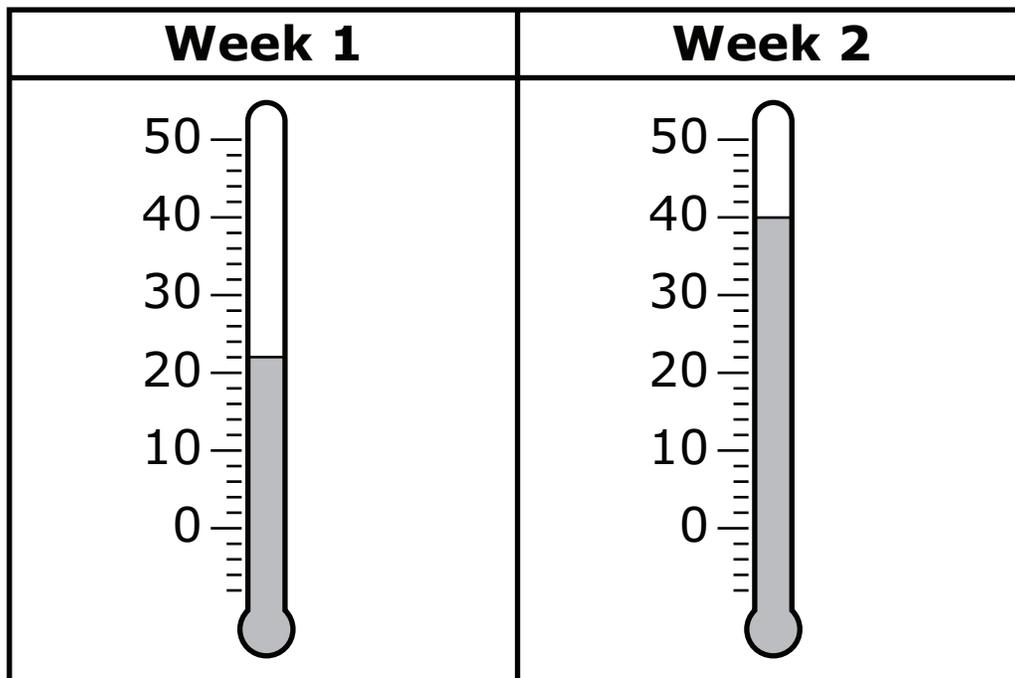
ETS Item Code: TAS01S0369	Content: Science
Item ID: 1201	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.9.2	AAT or UC: UC
Standard Text: Identify the common outcome of all chemical changes.	
AAT or UC Text: Identify examples of change (e.g. state of matter, color, temperature, and odor).	
Category: Chemical Reaction	
Correct Answer: A	

This is about changes to an object's properties.

A student measured the air temperature outside of the school.

Point to the picture.

[For all students, read "This picture shows a thermometer. A student looked at the thermometer on Monday of Week 1 (point to Week 1). The temperature was 22 degrees Celsius. The student looked at the thermometer on Monday of Week 2 (point to Week 2). The temperature was 40 degrees Celsius."]



What happened to the temperature between Week 1 and Week 2?

Point to and read each option to the student.

- A. The temperature increased.
- B. The temperature decreased.

Item Information

ETS Item Code: TAS01S0370	Content: Science
Item ID: 1202	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.9.2	AAT or UC: AAT
Standard Text: Identify the common outcome of all chemical changes.	
AAT or UC Text: Refer to data on the properties (e.g., color, texture, odor) of substances before and after chemical changes have occurred (e.g., burning sugar or burning steel wool, rust) to answer questions.	
Category: Chemical Reaction	
Correct Answer: C	

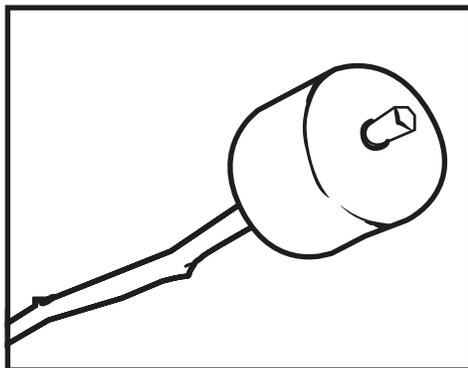
This is about chemical changes.

Chemical changes can be observed. When a substance is heated, a chemical change can occur.

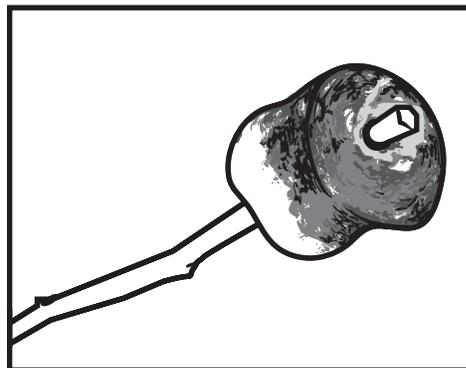
Point to the pictures.

[For all students, read "These are pictures of a marshmallow attached to a stick. This is the marshmallow before being held over a small campfire (point to the 'Marshmallow Before'). The marshmallow is white and firm. This is the marshmallow after being held over a small campfire for a certain amount of time (point to the 'Marshmallow After'). The marshmallow is blackened and softer."]

**Marshmallow
Before**



**Marshmallow
After**



Which of these is evidence that a chemical change has taken place?

Point to and read each option to the student.

- A. The marshmallow rusted.
- B. The marshmallow melted.
- C. The marshmallow burned.

Use the information from the data table to answer the questions.

Point to and read each question to the student.

Does combining the unknown substance and iodine result in a chemical change?

A. YES

B. NO

Is the unknown substance sugar?

A. YES

B. NO

Did both of the substances change to the same color?

A. YES

B. NO

Use the information from the data table to answer the questions.

Point to and read each question to the student.

Did combining the unknown substance and vinegar result in a chemical change?

A. YES

B. NO

Was the unknown substance baking soda?

A. YES

B. NO

Did combining the baking soda and vinegar result in a chemical change?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0373	Content: Science
Item ID: 1217	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.9.6	AAT or UC: UC
Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.	
AAT or UC Text: Identify matter in three different states: solid, liquid and gas.	
Category: Properties of Matter	
Correct Answer: B	

This is about states of matter.

Matter can be classified by the way that it looks.
Sometimes matter is a liquid, like the ocean.
Sometimes matter is a solid, like a rock.
Sometimes matter is a gas, like water vapor.

Which correctly shows matter in each of the three states?

Point to and read each option to the student.

A.

Solid	Liquid	Gas
Crayon	Oxygen	Paint

B.

Solid	Liquid	Gas
Book	Juice	Carbon Dioxide

Item Information

ETS Item Code: TAS01S0374

Content: Science

Item ID: 1218

Grade: 08

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0807.9.6

AAT or UC: AAT

Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.

AAT or UC Text: Compare the visible property of solids (does not change shape) and liquids (take the shape of any container) to its type of particle motion.

Category: Properties of Matter

Correct Answer: C

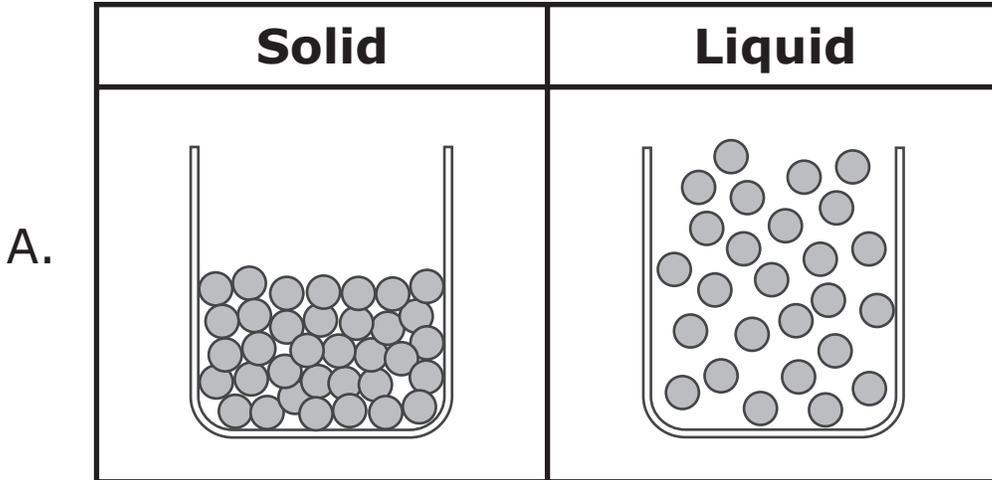
This is about properties of matter.

Matter is composed of particles. Matter is classified as a solid, liquid, or gas based on how particles are arranged.

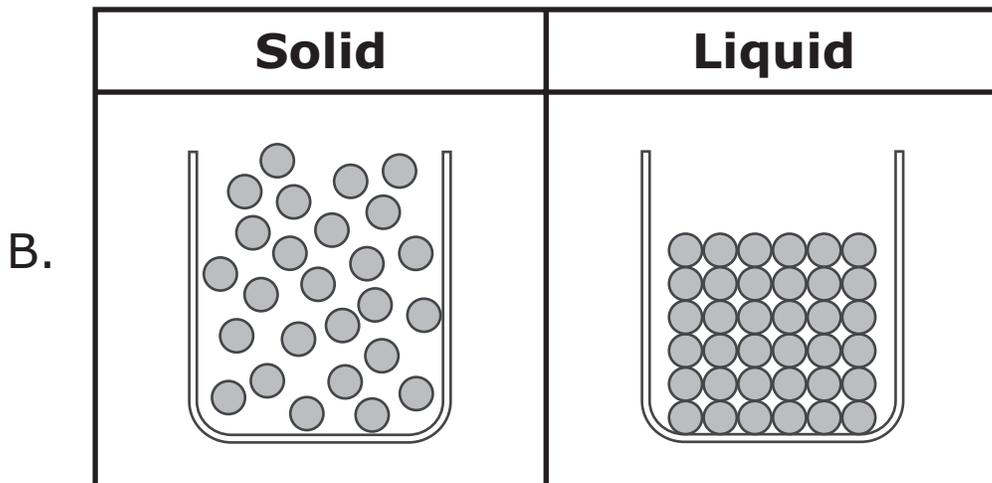
Which of these correctly shows how particles look as a solid and as a liquid?

Point to and read each option to the student.

[For all students, read "This is an image of two types of matter. The particles labeled solid take the shape of the beaker (point to 'Solid'). The particles labeled liquid spread throughout the entire beaker (point to 'Liquid')."]

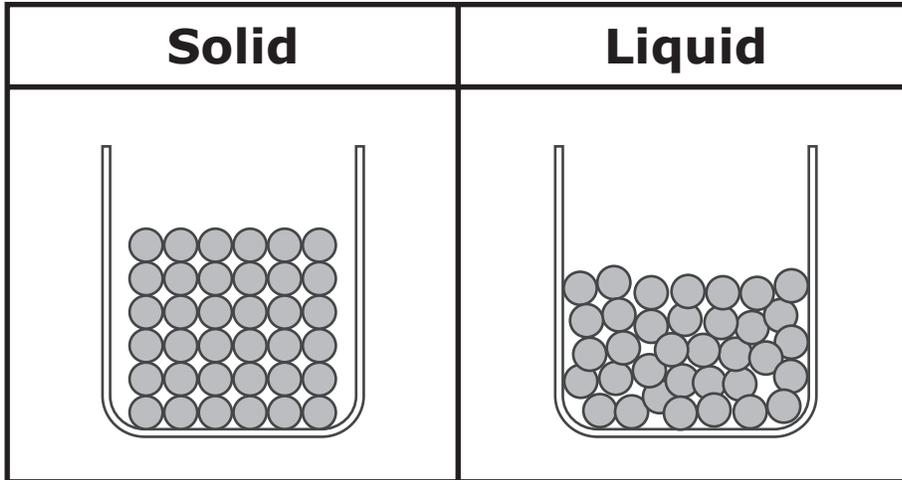


[For all students, read "This is an image of two types of matter. The particles labeled solid spread throughout the entire beaker (point to 'Solid'). The particles labeled liquid have a fixed shape (point to 'Liquid')."]



[For all students, read "This is an image of two types of matter. The particles labeled solid have a fixed shape (point to 'Solid'). The particles labeled liquid take the shape of the beaker (point to 'Liquid')."]

C.



Item Information

ETS Item Code: TAS01S0375

Content: Science

Item ID: 1219

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0807.9.6

AAT or UC: AAT

Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.

AAT or UC Text: Compare the visible property of solids (does not change shape) and liquids (take the shape of any container) to its type of particle motion.

Category: Properties of Matter

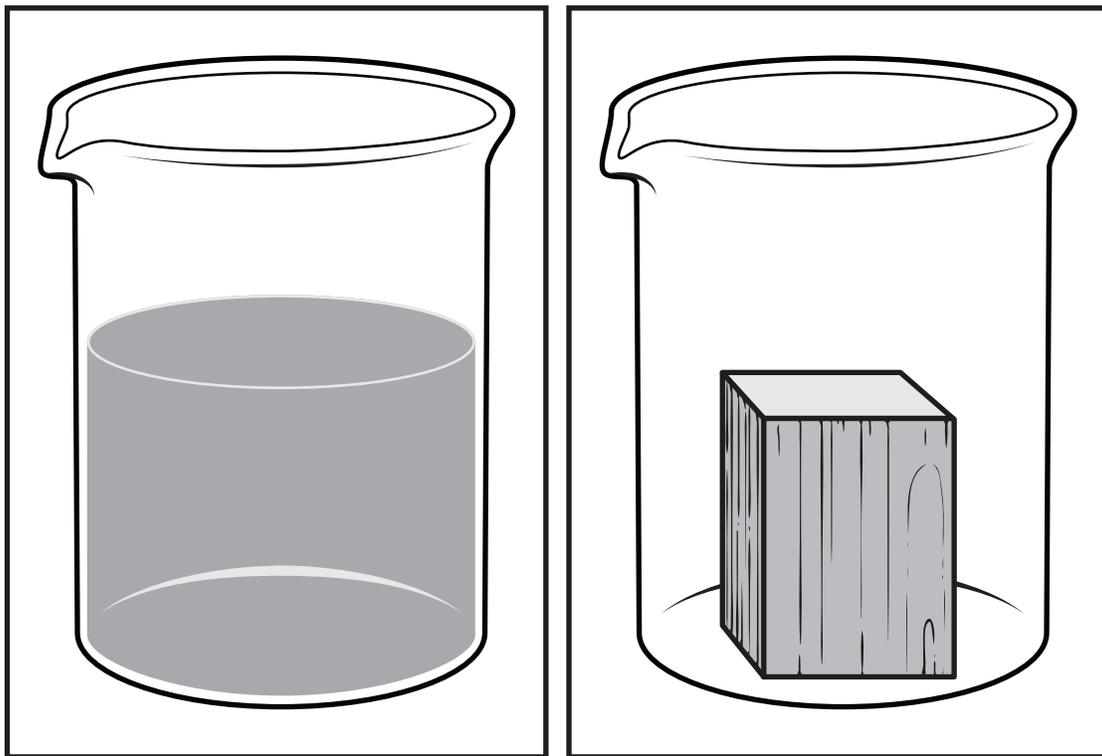
Correct Answer: A,B,A

This is about properties of matter.

Matter can be classified by its properties.

Point to the picture.

[For all students, read "This is a picture of two types of matter. (Point to the 'Juice.') This is a beaker containing juice. *(Point to the 'Wood.')* This is a beaker containing a block of wood.*"]*



Juice

Wood

Use the picture to answer the following questions.

Point to and read each question to the student.

If the juice is placed in a bowl, will the juice take the shape of the bowl? A. YES B. NO

If the wood is placed on a plate will the wood take the shape of the plate? A. YES B. NO

Are the particles of the juice in constant motion? A. YES B. NO

Item Information

ETS Item Code: TAS01S0376

Content: Science

Item ID: 1220

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0807.9.6

AAT or UC: AAT

Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.

AAT or UC Text: Compare the visible property of solids (does not change shape) and liquids (take the shape of any container) to its type of particle motion.

Category: Properties of Matter

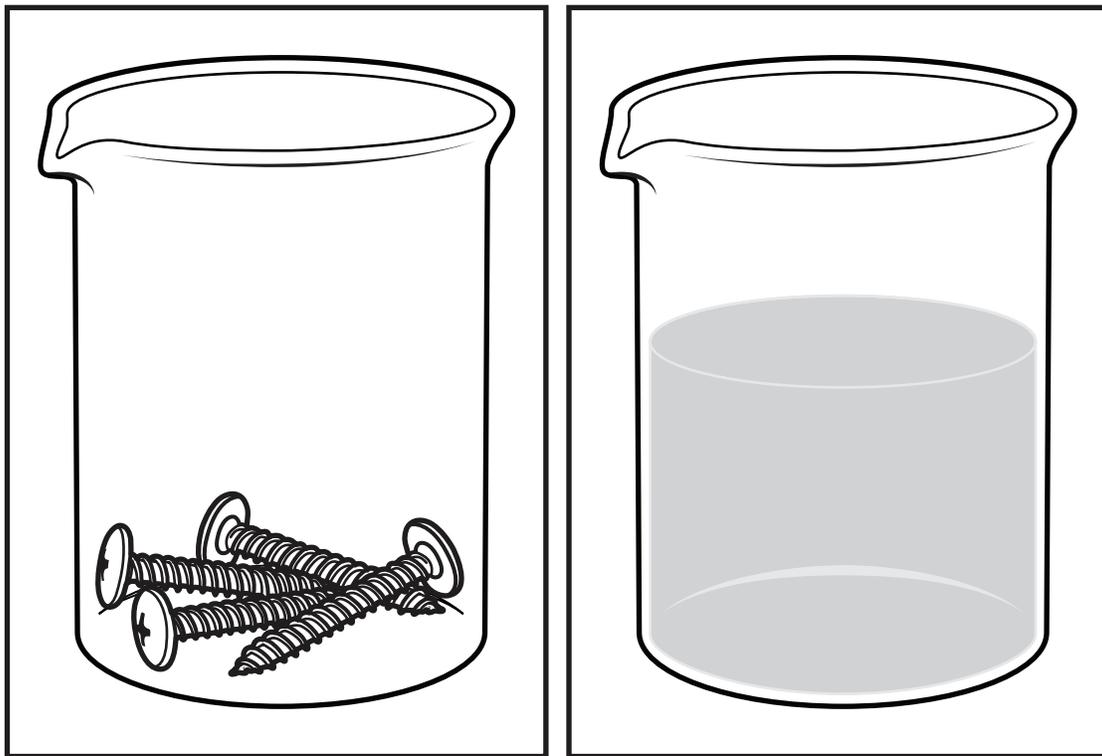
Correct Answer: B,A,B

This is about properties of matter.

Matter can be classified by its properties.

Point to the picture.

[For all students, read "This is a picture of two types of matter. This is a beaker containing metal screws (point to 'Metal Screws'). This is a beaker containing liquid water (point to 'Liquid Water')."]



Metal
Screws

Liquid
Water

Use the picture to answer the following questions.

Point to and read each question to the student.

If the metal screws are placed in a mug, will the metal screws take the shape of the mug?

A. YES

B. NO

If the metal screws are placed in a freezer, will the metal screws keep the same shape?

A. YES

B. NO

If the liquid water that is in the beaker is poured into a box, will the liquid water keep the shape of the beaker?

A. YES

B. NO

Item Information

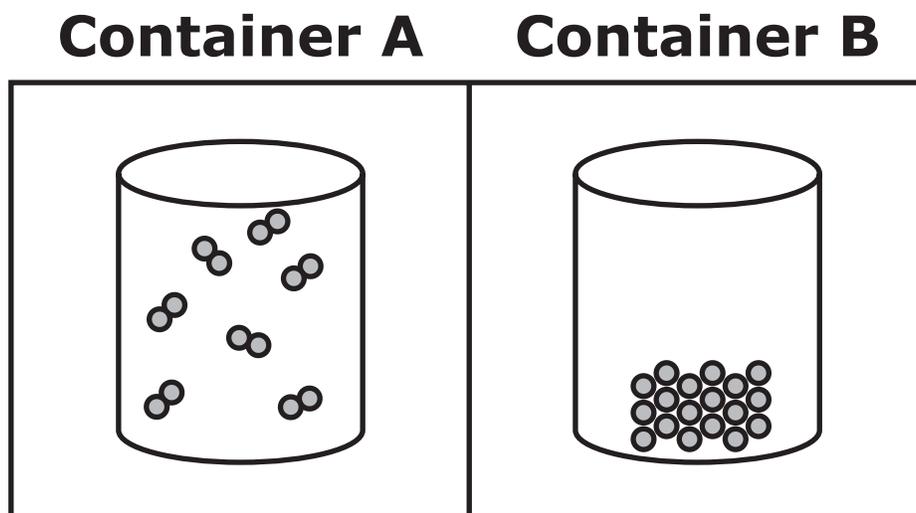
ETS Item Code: TAS02S0665	Content: Science
Item ID:	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.9.6	AAT or UC: UC
Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.	
AAT or UC Text: Identify matter in three different states: solid, liquid and gas.	
Category: Properties of Matter	
Correct Answer: B	

This is about properties of matter.

All things are made out of matter. Matter is made of particles. Sometimes the particles move fast and bump off of each other. Sometimes the particles move slowly and roll over each other. Sometimes the particles are clumped tightly together.

Point to the diagram.

[For all students, read "This is a diagram of two containers. Container A (point to Container A) has fast-moving particles. Container B (point to Container B) has particles that are clumped together."]



Which container shows matter in a solid state?

Point to and read each option to the student.

- A. Container A
- B. Container B

Item Information

ETS Item Code: TAS02S0666

Content: Science

Item ID:

Grade: 08

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0807.9.6

AAT or UC: AAT

Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.

AAT or UC Text: Compare the visible property of solids (does not change shape) and liquids (take the shape of any container) to its type of particle motion.

Category: Properties of Matter

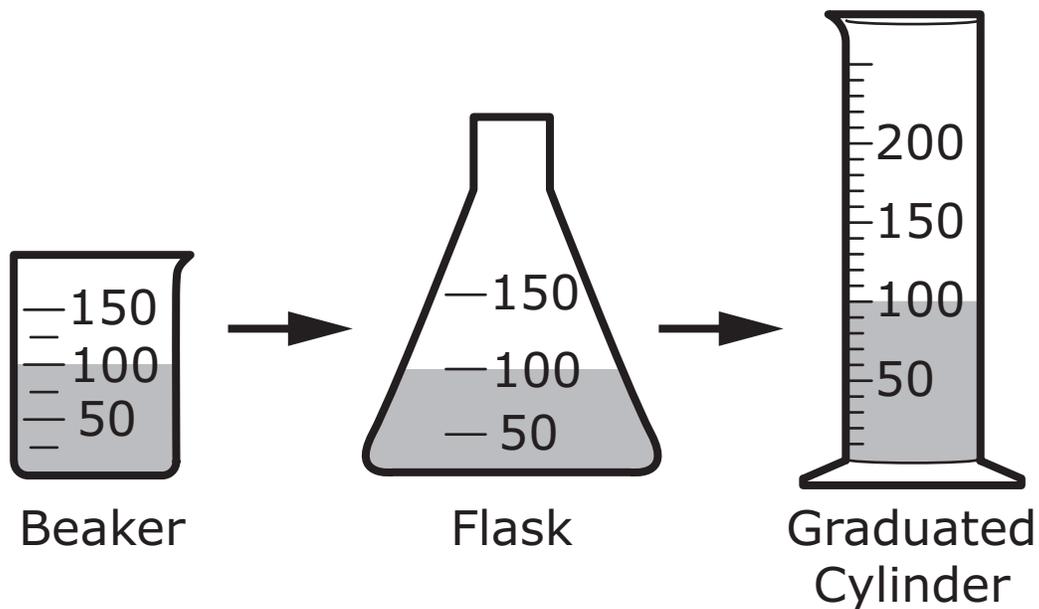
Correct Answer: B

This is about states of matter.

Matter can be in different forms. Sometimes matter is a liquid, like water. Sometimes matter is a solid, like a table. Sometimes matter is a gas, like the air we breathe.

Point to the diagram.

[For all students, read "This diagram shows a beaker holding 100 milliliters of a substance (point to the beaker). A student pours the substance from the beaker into a flask (point to the flask). The substance takes the shape of the flask. The student pours the substance from the flask into a graduated cylinder (point to the graduated cylinder). The substance takes the shape of the graduated cylinder."]



What state of matter is being measured?

Point to and read each option to the student.

- A. gas
- B. liquid
- C. solid

Item Information

ETS Item Code: TAS02S0667

Content: Science

Item ID:

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0807.9.6

AAT or UC: AAT

Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.

AAT or UC Text: Compare the visible property of solids (does not change shape) and liquids (take the shape of any container) to its type of particle motion.

Category: Properties of Matter

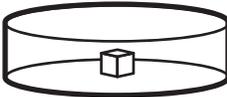
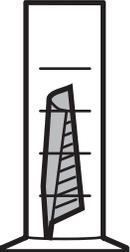
Correct Answer: A,B,A

This is about properties of matter.

All things are made out of matter. Matter is made of particles. Matter is classified by the arrangement of these particles.

Point to the data table.

[For all students, read "This data table shows an investigation of three substances. Substance X (point to substance X) is placed into a cup, then into a petri dish, and then into a graduated cylinder. Substance X stays the same shape in each container. Substance Y (point to substance Y) is placed into a cup, then into a petri dish, and then into a graduated cylinder. Substance Y changes shape based on the shape of the containers. Substance Z (point to substance Z) is placed into a cup, then into a petri dish, and then into a graduated cylinder. Substance Z is rolled up in order to fit inside the cup and the graduated cylinder. Substance Z does not take the shape of the containers."]

	Substance		
	X	Y	Z
In a Cup			
In a Petri Dish			
In a Graduated Cylinder			

Use the information in the data table to answer the questions.

Point to and read each question to the student.

Is substance X solid or liquid?

A. solid

B. liquid

Is substance Y solid or liquid?

A. solid

B. liquid

Is substance Z solid or liquid?

A. solid

B. liquid

Item Information

ETS Item Code: TAS02S0668

Content: Science

Item ID:

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0807.9.6

AAT or UC: AAT

Standard Text: Compare the particle arrangement and type of particle motion associated with different states of matter.

AAT or UC Text: Compare the visible property of solids (does not change shape) and liquids (take the shape of any container) to its type of particle motion.

Category: Properties of Matter

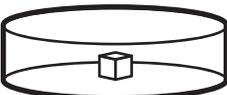
Correct Answer: B,A,B

This is about properties of matter.

All things are made out of matter. Matter is made of particles. Matter is classified by how these particles are arranged.

Point to the data table.

[For all students, read "This is an investigation of three substances. Substance 1 (point to substance 1) is placed into a cup, then into a petri dish, and then into a graduated cylinder. Substance 1 changes shape according to the shape of the containers. Substance 2 (point to substance 2) is placed into a cup, then into a petri dish, and then into a graduated cylinder. Substance 2 stays the same shape in each container. Substance 3 (point to substance 3) is placed into a cup, then into a petri dish, and then into a graduated cylinder. Substance 3 changes shape according to the shape of the containers."]

		Substance		
		1	2	3
In a Cup				
In a Petri Dish				
In a Graduated Cylinder				

Use the information in the data table to answer the questions.

Point to and read each question to the student.

Is substance 1 solid or liquid?

A. solid

B. liquid

Is substance 2 solid or liquid?

A. solid

B. liquid

Is substance 3 solid or liquid?

A. solid

B. liquid

Item Information

ETS Item Code: TAS01S0377	Content: Science
Item ID: 1205	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.9.10	AAT or UC: UC
Standard Text: Identify the reactants and products of a chemical reaction.	
AAT or UC Text: Understand that a chemical reaction leads to a chemical change.	
Category: Chemical Reaction	
Correct Answer: A	

This is about changes and reactions.

A student is performing an experiment in science class. The student mixes baking soda with vinegar. A solution is made. The solution begins to bubble and fizz.

Which statement describes the presence of bubbling and fizzing?

Point to and read each option to the student.

- A. A chemical reaction took place.
- B. A physical change took place.

Item Information

ETS Item Code: TAS01S0378

Content: Science

Item ID: 1206

Grade: 08

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0807.9.10

AAT or UC: AAT

Standard Text: Identify the reactants and products of a chemical reaction.

AAT or UC Text: Identify evidence that proves a chemical reaction has taken place (e.g., something new is visibly produced, gas is created, heat is given off or taken in).

Category: Chemical Reaction

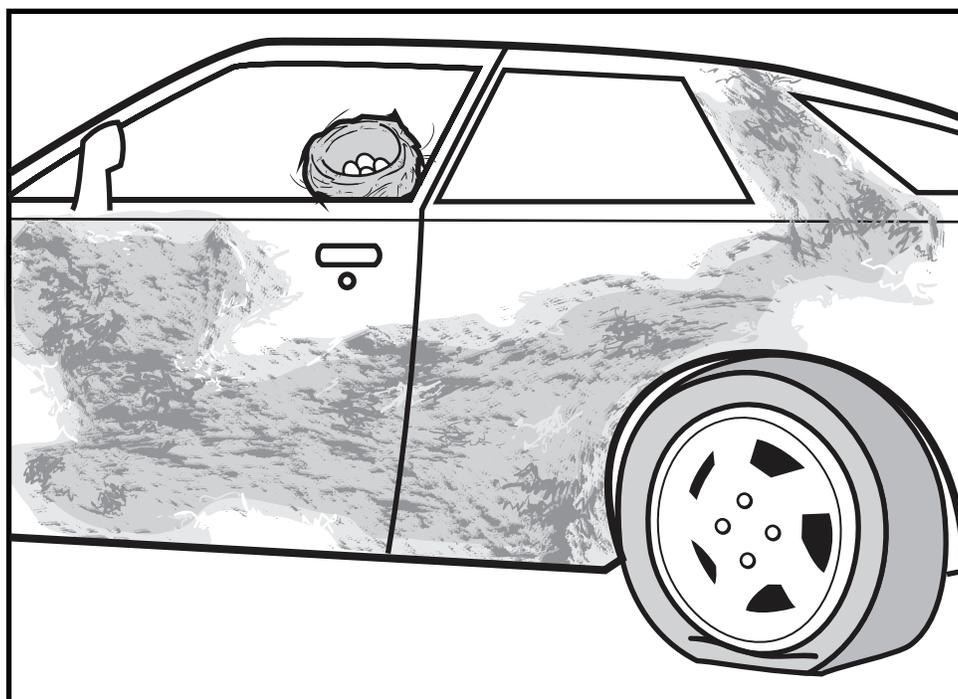
Correct Answer: B

This is about chemical reactions.

During a chemical reaction, substances are changed into different substances.

Point to the picture.

[For all students, read "This is a picture of a car that has been left outside for a long time. The tires are flat (point to the tire). Rust has developed on the surface of the car (point to the door). Some animals have made their home inside the car (point to the nest)."]



Which of these is evidence of a chemical reaction?

Point to and read each option to the student.

- A. The tires have lost air.
- B. Rust has formed on the surface of the car.
- C. Animals have built a nest inside the car.

Item Information

ETS Item Code: TAS01S0379	Content: Science
Item ID: 1207	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.9.10	AAT or UC: AAT
Standard Text: Identify the reactants and products of a chemical reaction.	
AAT or UC Text: Identify evidence that proves a chemical reaction has taken place (e.g., something new is visibly produced, gas is created, heat is given off or taken in).	
Category: Chemical Reaction	
Correct Answer: A,A,B	

This is about chemical reactions.

During a chemical reaction, substances are changed into different substances.

Identify whether these are examples of chemical reactions.

Point to and read each question to the student.

Are the bubbles of gas that form when two substances are combined an example of a chemical reaction?

A. YES

B. NO

Is the explosion of fireworks an example of a chemical reaction?

A. YES

B. NO

Is a melting ice cube an example of a chemical reaction?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0380	Content: Science
Item ID: 1208	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.9.10	AAT or UC: AAT
Standard Text: Identify the reactants and products of a chemical reaction.	
AAT or UC Text: Identify evidence that proves a chemical reaction has taken place (e.g., something new is visibly produced, gas is created, heat is given off or taken in).	
Category: Chemical Reaction	
Correct Answer: A,B,B	

This is about chemical reactions.

During a chemical reaction, substances are changed into different substances.

Identify whether these are examples of chemical reactions.

Point to and read each question to the student.

Is the burning of wood an example of a chemical reaction?

A. YES

B. NO

Is folding a piece of paper an example of a chemical reaction?

A. YES

B. NO

Is slicing an apple an example of a chemical reaction?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0381

Content: Science

Item ID: 1209

Grade: 08

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0807.9.11

AAT or UC: UC

Standard Text: Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).

AAT or UC Text: Understand the total mass of a mixture is equal to the sum of the parts.

Category: Chemical Reaction

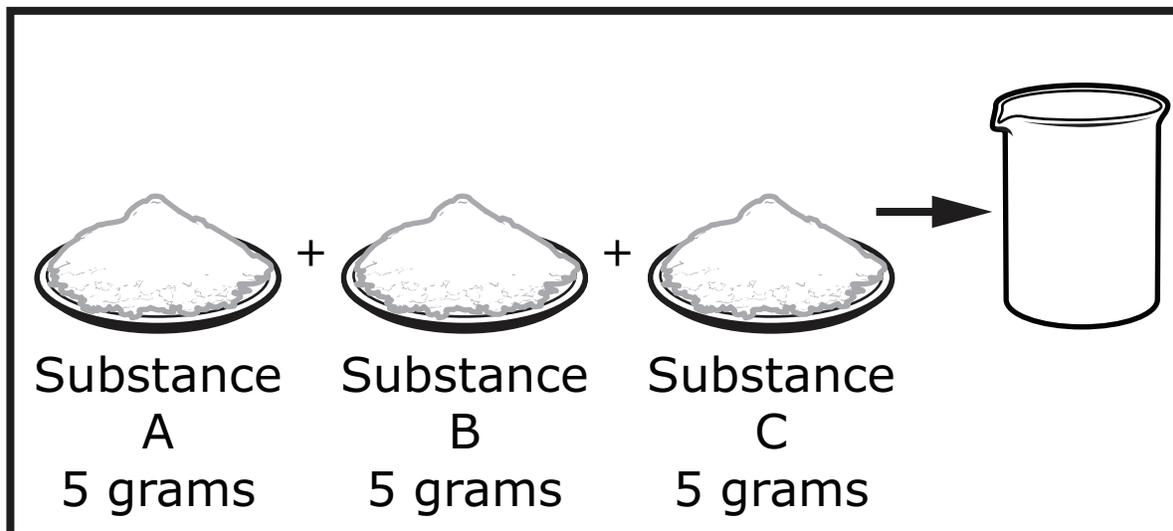
Correct Answer: B

This is about mass.

A teacher wants to combine three different substances in a beaker.

Point to the diagram.

[For all students, read "This diagram shows three substances and a beaker. Each substance has a mass of five grams (point to each substance). The teacher adds one substance at a time to the beaker (point to the beaker)."]



What will be the total mass of the three substances?

Point to and read each option to the student.

- A. 5 grams
- B. 15 grams

Item Information

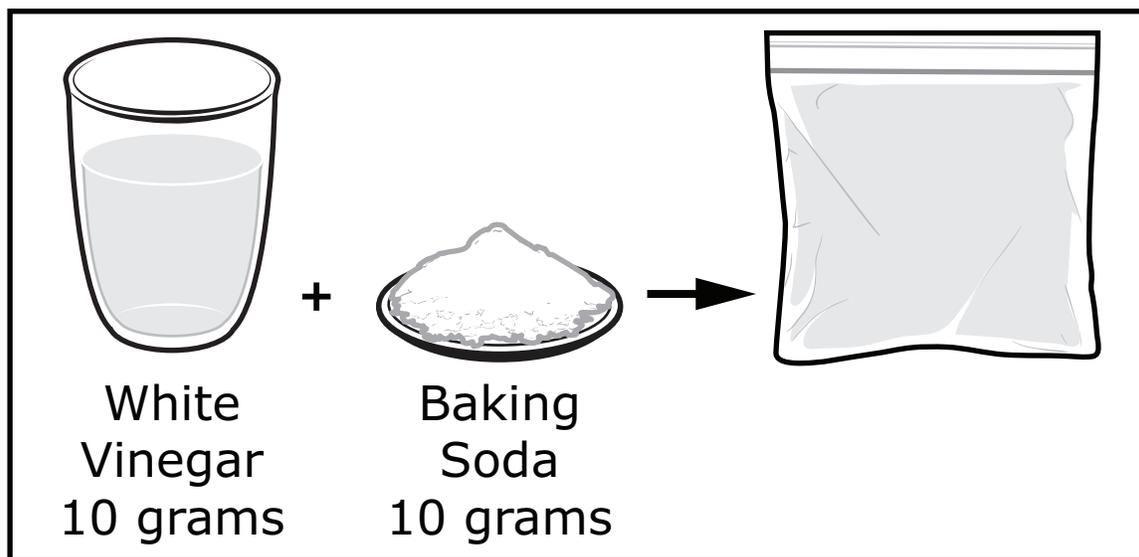
ETS Item Code: TAS01S0382	Content: Science
Item ID: 1210	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.9.11	AAT or UC: AAT
Standard Text: Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).	
AAT or UC Text: Identify a chemical reaction in which the mass of the reactants is shown to be equal to the mass of the products.	
Category: Chemical Reaction	
Correct Answer: B	

This is about mass and chemical reactions.

During a chemical reaction, two substances are combined and change into different substances.

Point to the diagram.

[For all students, read "This is a diagram showing the reactants in an experiment. This cup holds white vinegar (point to the 'White Vinegar'). It has a mass of 10 grams. This dish holds 10 grams of baking soda (point to the 'Baking Soda'). The baking soda is combined with the vinegar in a sealed plastic bag (point to the plastic bag). The baking soda and vinegar create different substances inside the plastic bag."]



What is the total mass of the substances inside the plastic bag?

Point to and read each option to the student.

- A. less than 20 grams
- B. equal to 20 grams
- C. more than 20 grams

Item Information

ETS Item Code: TAS01S0383

Content: Science

Item ID: 1211

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 0807.9.11

AAT or UC: AAT

Standard Text: Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).

AAT or UC Text: Identify a chemical reaction in which the mass of the reactants is shown to be equal to the mass of the products.

Category: Chemical Reaction

Correct Answer: B,A,A

This is about mass and chemical reactions.

During a chemical reaction, two substances are combined and change into different substances.

Point to the data table.

[For all students, read "This data table shows the data of two experiments. In Experiment Number 1 (point to the '1') the mass of the powder was 10 grams (point to 10). The mass of the liquid was 20 grams (point to 20). When the substances were combined, a chemical reaction occurred. The Final Mass is the mass of the combined substances (point to the first question mark). In Experiment Number 2 (point to '2') the mass of the powder was 5 grams (point to 5). The mass of the liquid was 10 grams (point to 10). When the substances were combined, a chemical reaction occurred. The Final Mass is the mass of the combined substances (point to the second question mark)."]

Experiment	Mass of Powder (g)	Mass of Liquid (g)	Final Mass (g)
1	10	20	?
2	5	10	?

Use the information in the data table to answer the questions.

Point to and read each question to the student.

Did the Final Mass of
Experiment 1 equal
50 grams?

A. YES

B. NO

Did the Final Mass of
Experiment 2 equal
15 grams?

A. YES

B. NO

Is the Final Mass of
Experiment 1 greater than
the Final Mass of
Experiment 2?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0384

Content: Science

Item ID: 1212

Grade: 08

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 0807.9.11

AAT or UC: AAT

Standard Text: Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).

AAT or UC Text: Identify a chemical reaction in which the mass of the reactants is shown to be equal to the mass of the products.

Category: Chemical Reaction

Correct Answer: B,A,B

This is about mass and chemical reactions.

During a chemical reaction, two substances are combined and change into different substances.

Point to the data table.

[For all students, read "This data table shows the data of two experiments. In Experiment Number 1 (point to the '1') the mass of the powder was 30 grams (point to 30). The mass of the liquid was 30 grams (point to 30). When the substances were combined, a chemical reaction occurred. The Final Mass is the mass of the combined substances (point to the first question mark). In Experiment Number 2 (point to '2') the mass of the powder was 5 grams (point to 5). The mass of the liquid was 15 grams (point to 15). When the substances were combined, a chemical reaction occurred. The Final Mass is the mass of the combined substances (point to the second question mark)."]

Experiment	Mass of Powder (g)	Mass of Liquid (g)	Final Mass (g)
1	30	30	?
2	5	15	?

Use the information in the data table to answer the questions.

Point to and read each question to the student.

Did the Final Mass of
Experiment 1 equal 30
grams?

A. YES

B. NO

Did the Final Mass of
Experiment 2 equal 20
grams?

A. YES

B. NO

Is the Final Mass of
Experiment 1 the same as
the Final Mass of
Experiment 2?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0393

Item ID: 1221

DOK Level: 2

Level: 1

Standard Code: 0807.12.1

Standard Text: Recognize that electricity can be produced using a magnet and wire coil.

AAT or UC Text: Recognize that magnets can be found in nature and can be man-made.

Category: Forces of Nature

Correct Answer: B

Content: Science

Grade: 08

Item Type: SR

Points: 1

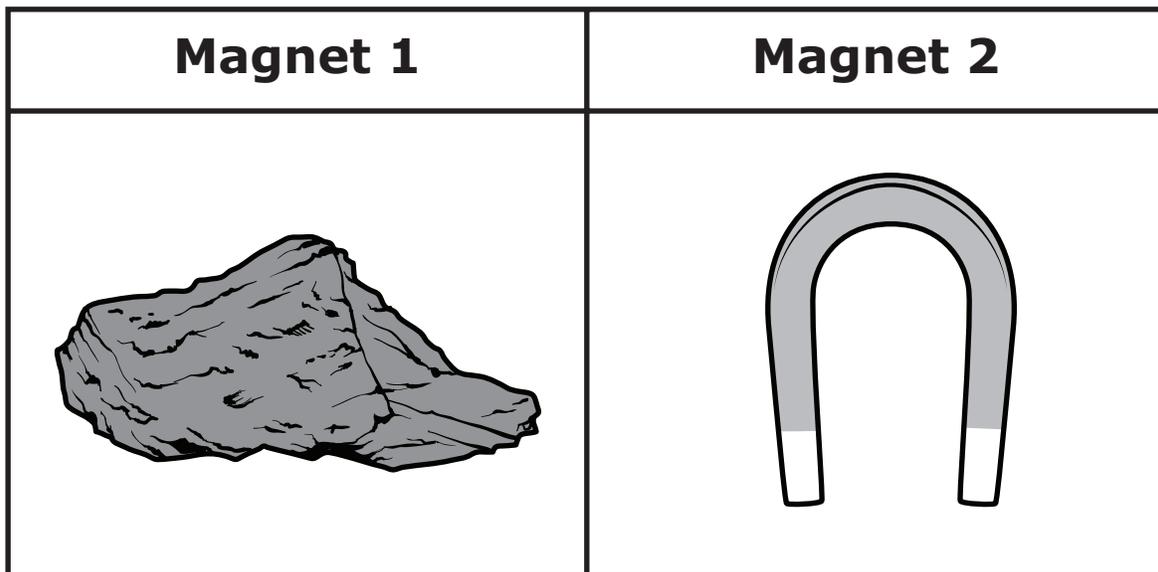
AAT or UC: UC

This is about magnets.

Magnets can be natural or man-made.

Point to the picture.

[For all students, read "This is a picture of two types of magnets. This is magnetite (point to 'Magnet 1'). It is a magnetic mineral. This is a horseshoe magnet (point to 'Magnet 2'). It is made from iron and other minerals."]



Which magnet is man-made?

Point to and read each option to the student.

A. Magnet 1

B. Magnet 2

Item Information

ETS Item Code: TAS01S0394

Content: Science

Item ID: 1222

Grade: 08

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 0807.12.1

AAT or UC: AAT

Standard Text: Recognize that electricity can be produced using a magnet and wire coil.

AAT or UC Text: Identify when magnetic forces can be attractive and repulsive.

Category: Forces of Nature

Correct Answer: B

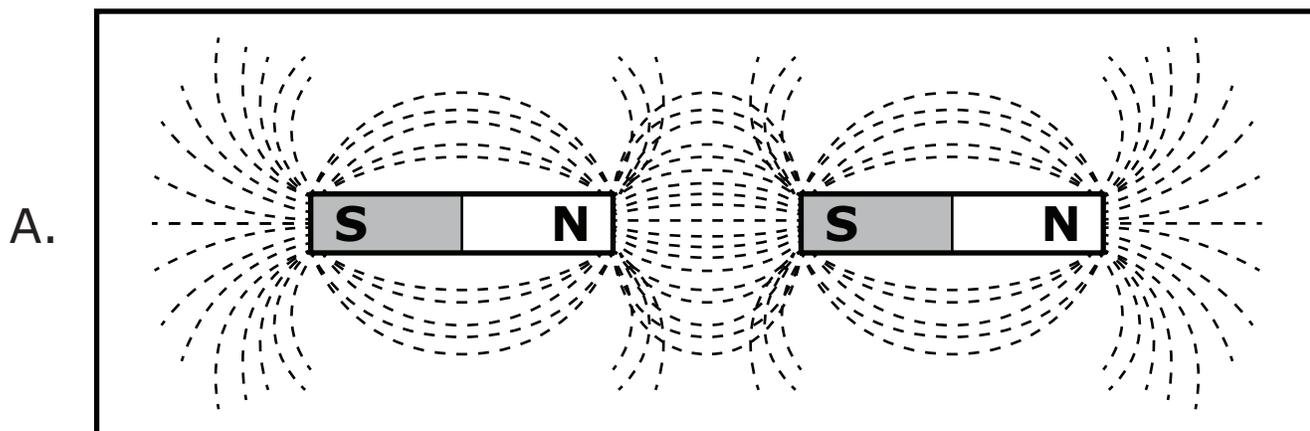
This is about magnetism.

Magnetic poles can attract or repel each other. Attracting means to pull together. Repelling means to push apart.

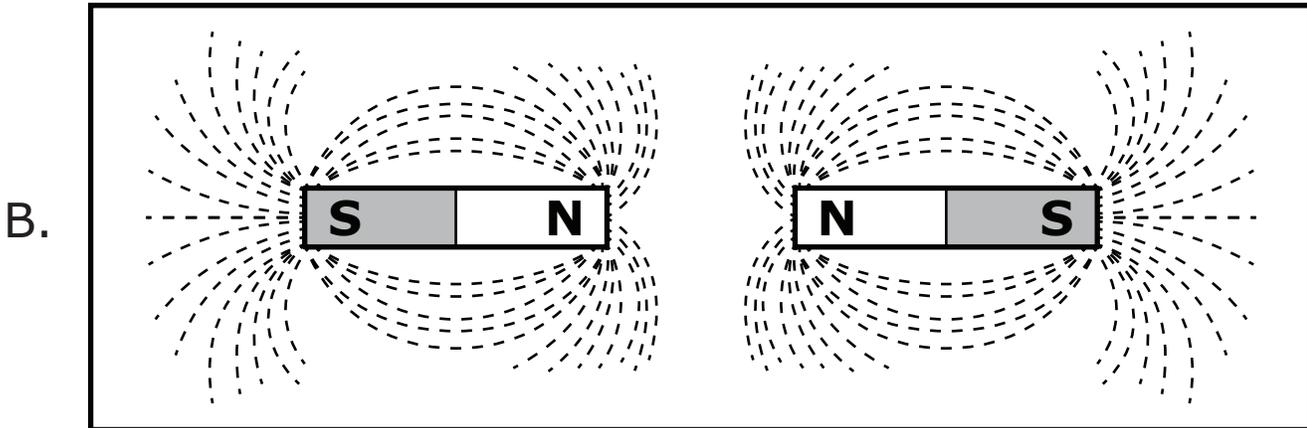
Which set contains magnets that are repelling each other?

Point to and read each option to the student.

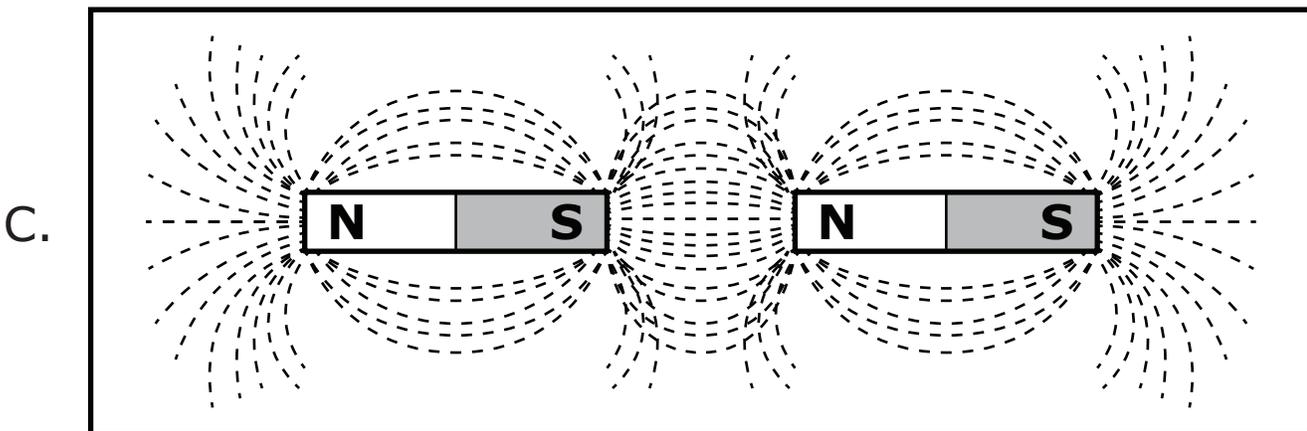
[For students with visual impairment, read "This is a set of two magnets surrounded by iron filings. The north pole of one magnet faces the south pole of the other magnet (point to the north pole of one magnet facing the south pole of the other magnet). The iron filings fill in the space between the two magnets."]



[For students with visual impairment, read "This is a set of two magnets surrounded by iron filings. The north pole of one magnet faces the north pole of the other magnet (point to the north pole of one magnet facing the north pole of the other magnet). The iron filings separate between the two magnets."]



[For students with visual impairment, read "This is a set of two magnets surrounded by iron filings. The south pole of one magnet faces the north pole of the other magnet (point to the south pole of one magnet facing the north pole of the other magnet). The iron filings fill in the space between the two magnets."]



Item Information

ETS Item Code: TAS01S0395	Content: Science
Item ID: 1223	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.12.1	AAT or UC: AAT
Standard Text: Recognize that electricity can be produced using a magnet and wire coil.	
AAT or UC Text: Identify when magnetic forces can be attractive and repulsive.	
Category: Forces of Nature	
Correct Answer: A,B,B	

This is about magnetism.

Magnetic poles can attract or repel each other. Attracting means to pull together. Repelling means to push apart.

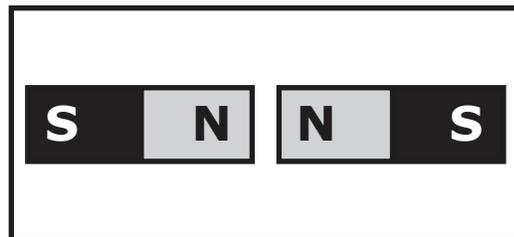
Point to the diagram.

[For all students, read "This is a diagram of two sets of magnets. Magnet Set 1 contains two magnets (point to Magnet Set 1). This is the north pole of the magnets (point to the letter 'N' on each magnet in Set 1). This is the south pole of the magnets (point to the letter 'S' on each magnet in Set 1). The south pole of one magnet is facing the north pole of the other magnet. Magnet Set 2 contains two magnets (point to Magnet Set 2). This is the south pole of the magnets (point to the letter 'S' on each magnet in Set 2). This is the north pole of the magnets (point to the letter 'N' on each magnet in Set 2). The north pole of one magnet is facing the north pole of the other magnet."]

**Magnet Set
1**



**Magnet Set
2**



Use the diagram to answer the questions.

Point to and read each question to the student.

Will the magnets in Magnet Set 1 attract or repel each other?

A. attract

B. repel

Will the magnets in Magnet Set 2 attract or repel each other?

A. attract

B. repel

If the south poles of two magnets are placed next to each other, will the magnets attract or repel each other?

A. attract

B. repel

Item Information

ETS Item Code: TAS01S0396	Content: Science
Item ID: 1224	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.12.1	AAT or UC: AAT
Standard Text: Recognize that electricity can be produced using a magnet and wire coil.	
AAT or UC Text: Identify when magnetic forces can be attractive and repulsive.	
Category: Forces of Nature	
Correct Answer: A,B,B	

This is about magnetism.

Magnetic poles can attract or repel each other. Attracting means to pull together. Repelling means to push apart.

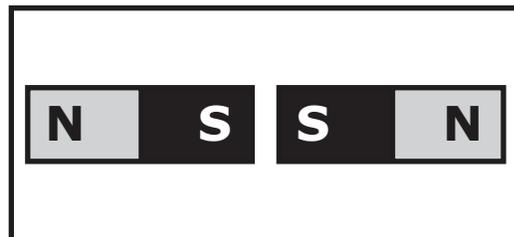
Point to the diagram.

[For all students, read "This is a diagram of two sets of magnets. Magnet Set 1 contains two magnets (point to Magnet Set 1). This is the south pole of the magnets (point to the letter 'S' on each magnet in Set 1). This is the north pole of the magnets (point to the letter 'N' on each magnet in Set 1). The south pole of one magnet is facing the north pole of the other magnet. Magnet Set 2 contains two magnets (point to Magnet Set 2). This is the south pole of the magnets (point to the letter 'S' on each magnet in Set 2). This is the north pole of the magnets (point to the letter 'N' on each magnet in Set 2). The south pole of one magnet is facing the south pole of the other magnet."]

**Magnet Set
1**



**Magnet Set
2**



Use the diagram to answer the questions.

Point to and read each question to the student.

Will the magnets in Magnet Set 1 attract or repel each other?

A. attract

B. repel

Will the magnets in Magnet Set 2 attract or repel each other?

A. attract

B. repel

If the north poles of two magnets are placed next to each other, will the magnets attract or repel each other?

A. attract

B. repel

Item Information

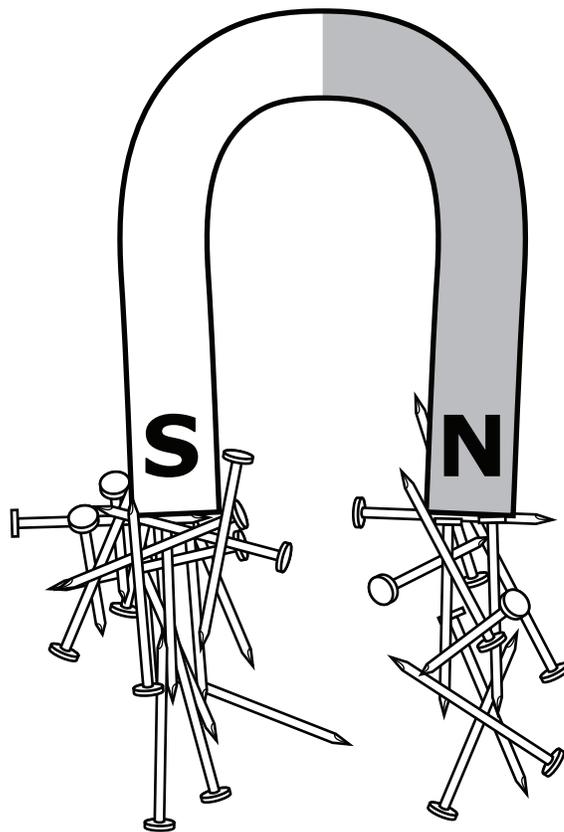
ETS Item Code: TAS01S0397	Content: Science
Item ID: 1225	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.12.2	AAT or UC: UC
Standard Text: Describe the basic principles of an electromagnet.	
AAT or UC Text: Recognize that some magnets are stronger than others.	
Category: Forces of Nature	
Correct Answer: A	

This is about magnets.

Magnets come in a variety of shapes and strengths.

Point to the picture.

[For all students, read "This is a magnet. A student used this magnet to attract and hold twenty-five nails (point to the nails at the bottom of the magnet). The student discovered that the magnet cannot hold more than twenty-five nails."]



What does the student need in order to attract more nails?

Point to and read each option to the student.

- A. a stronger magnet
- B. a weaker magnet

Item Information

ETS Item Code: TAS01S0398	Content: Science
Item ID: 1226	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.12.2	AAT or UC: AAT
Standard Text: Describe the basic principles of an electromagnet.	
AAT or UC Text: Identify a model that demonstrates that a piece of metal, when magnetized by electricity, can pick up many times its own weight.	
Category: Forces of Nature	
Correct Answer: A	

This is about electromagnets.

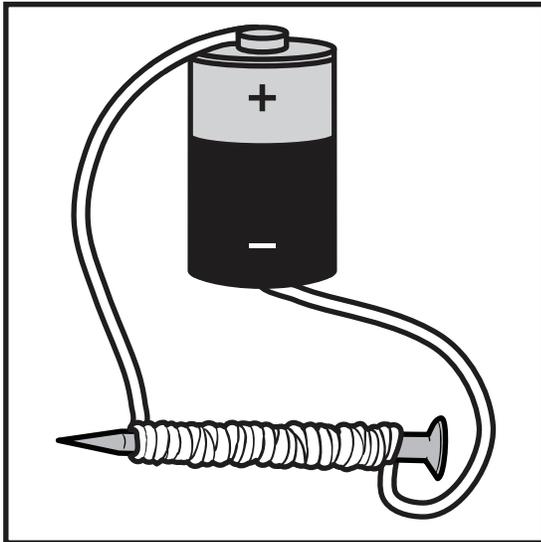
An electromagnet is a very powerful type of magnet. A magnetic field occurs when electricity flows through a coil of wire.

Which of these is a model for an electromagnet?

Point to and read each option to the student.

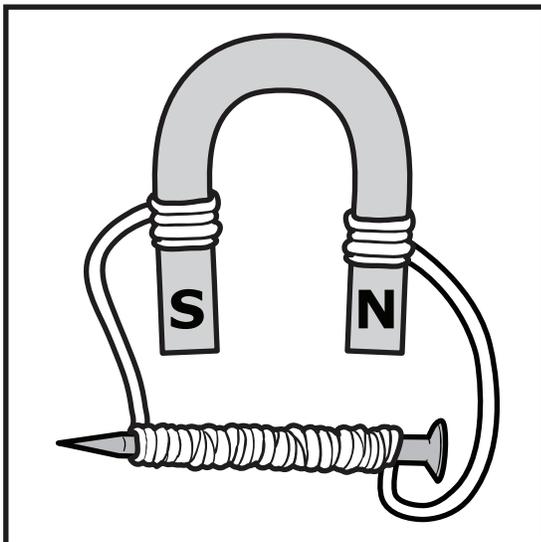
[For students with visual impairment, read "This is a metal screw (point to the screw) wrapped with a copper wire, which is attached to a battery. One end of the wire is connected to the positive end (point to the positive end). The other end of the wire is connected to the negative end (point to the negative end)."]

A.



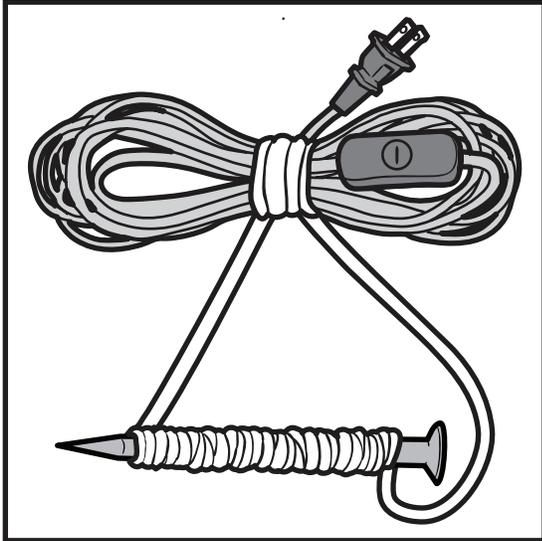
[For students with visual impairment, read "This is a metal screw (point to the screw) wrapped with a copper wire, which is attached to a magnet. One end of the wire is connected to the north pole (point to the north pole). The other end of the wire is connected to the south pole (point to the south pole)."]

B.



[For students with visual impairment, read "This is a metal screw (point to the screw) wrapped with a copper wire. The copper wire is also wrapped around an unplugged electrical cord)."]

C.



Item Information

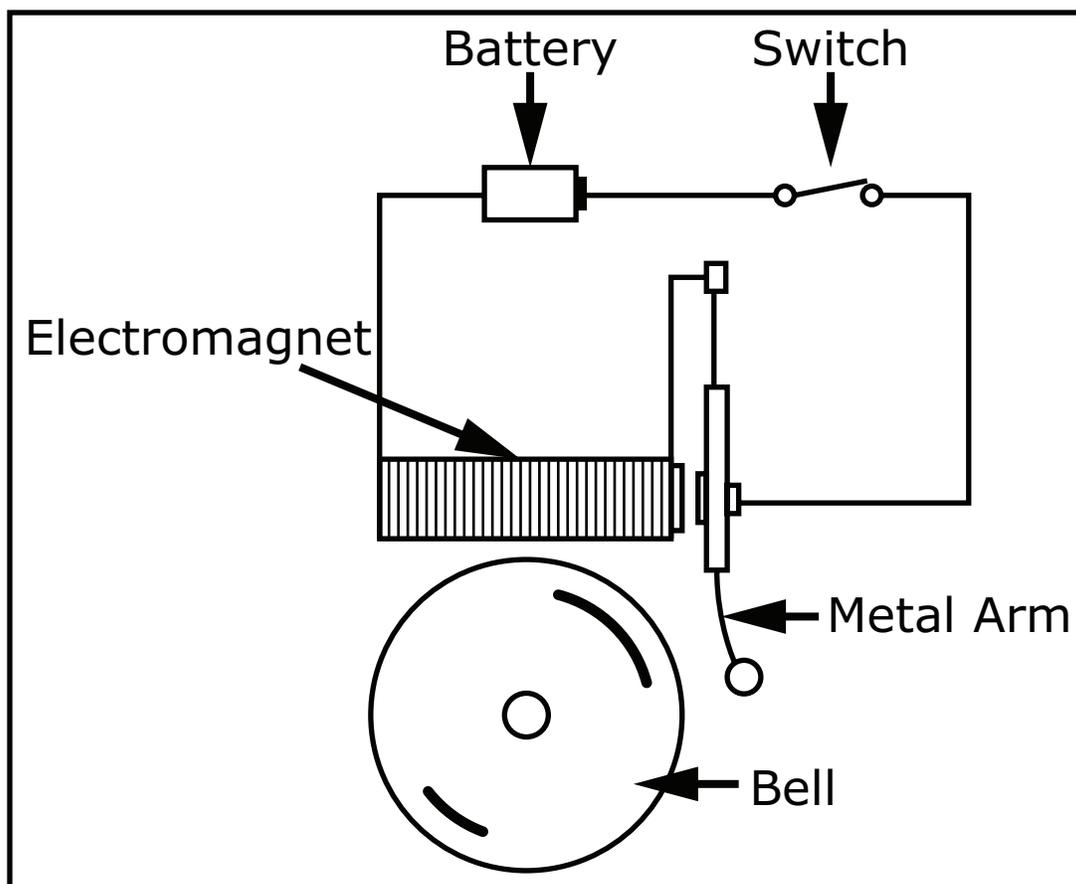
ETS Item Code: TAS01S0399	Content: Science
Item ID: 1227	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.12.2	AAT or UC: AAT
Standard Text: Describe the basic principles of an electromagnet.	
AAT or UC Text: Identify a model that demonstrates that a piece of metal, when magnetized by electricity, can pick up many times its own weight.	
Category: Forces of Nature	
Correct Answer: B,A,B	

This is about electromagnets.

An electromagnet is a very powerful type of magnet. A magnetic field occurs when electricity flows through a coil of wire.

Point to the picture.

[For all students, read "This is the inside of a school bell. An electromagnet (point to the electromagnet) makes the bell ring. This is the battery (point to the battery). This is the switch (point to the switch). This is the metal arm that rings the bell (point to the bell)."]



Use the information to answer the questions.

Point to and read each question to the student.

Is the bell the source of electricity for this electromagnet?

A. YES

B. NO

Is the metal arm moved by the electromagnet?

A. YES

B. NO

Will the bell ring if the battery is replaced with a bar magnet?

A. YES

B. NO

Item Information

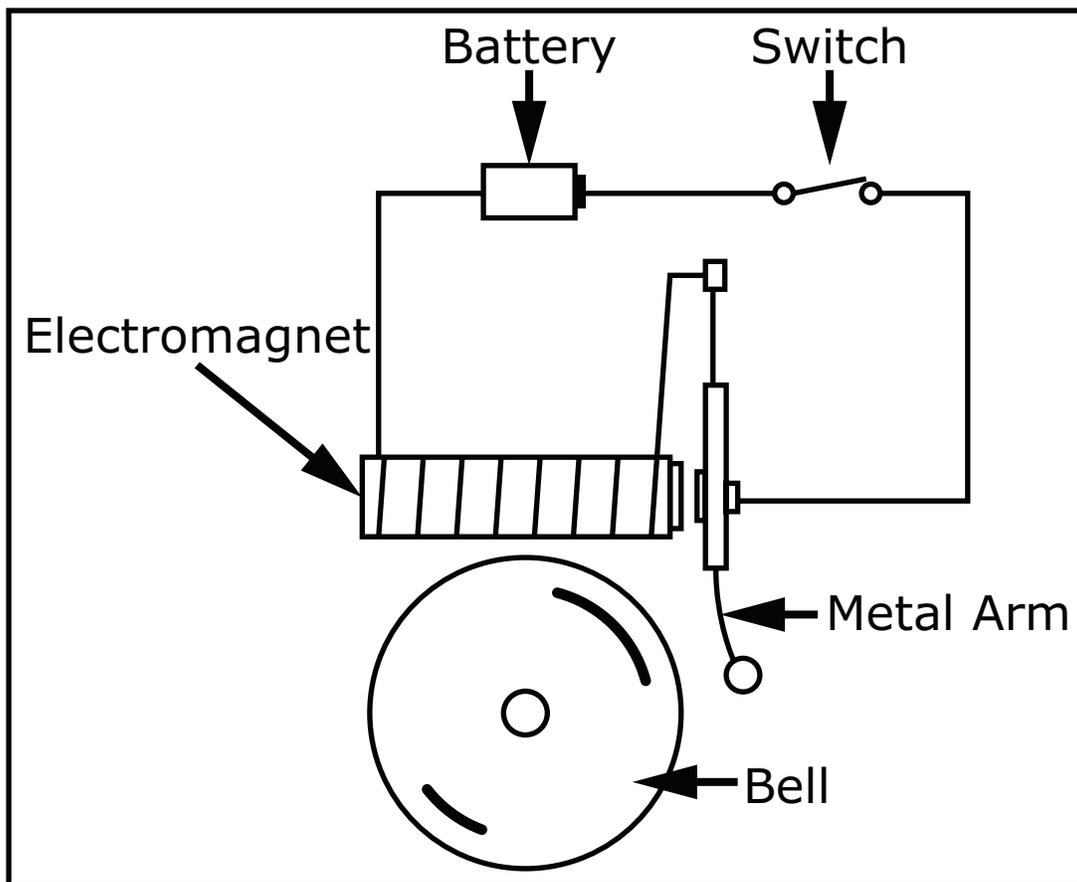
ETS Item Code: TAS01S0400	Content: Science
Item ID: 1227	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.12.2	AAT or UC: AAT
Standard Text: Describe the basic principles of an electromagnet.	
AAT or UC Text: Identify a model that demonstrates that a piece of metal, when magnetized by electricity, can pick up many times its own weight.	
Category: Forces of Nature	
Correct Answer: B,A,B	

This is about electromagnets.

An electromagnet is a very powerful type of magnet. A magnetic field occurs when electricity flows through a coil of wire.

Point to the picture.

[For all students, read "This is the inside of a doorbell. An electromagnet (point to the electromagnet) makes the bell ring. This is the battery (point to the battery). This is the switch (point to the switch). This is the metal arm that rings the bell (point to the bell)."]



Use the information to answer the questions.

Point to and read each question to the student.

Is the metal arm the source of electricity for this electromagnet?

A. YES

B. NO

Does the metal arm move when the switch is closed?

A. YES

B. NO

Will the bell ring if the battery is removed?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0401	Content: Science
Item ID: 1229	Grade: 08
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0807.12.6	AAT or UC: UC
Standard Text: Illustrate how gravity controls the motion of objects in the solar system.	
AAT or UC Text: Understand that objects in the solar system move in a regular and predictable way.	
Category: Forces of Nature	
Correct Answer: A	

This is about objects in the solar system.

A scientist studies objects in the sky. The scientist saw a full moon one evening.

When will the scientist see a full moon again?

Point to and read each option to the student.

- A. in one month
- B. in one week

Item Information

ETS Item Code: TAS01S0402	Content: Science
Item ID: 1230	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.12.6	AAT or UC: AAT
Standard Text: Illustrate how gravity controls the motion of objects in the solar system.	
AAT or UC Text: Understand how the Earth orbits the sun (i.e., gravity can make a smaller object orbit a larger object).	
Category: Forces of Nature	
Correct Answer: B	

This is about Earth and the sun.

Earth travels on a path around the sun.

What keeps Earth traveling around the sun?

Point to and read each option to the student.

- A. the sun's color
- B. the sun's gravity
- C. the sun's temperature

Item Information

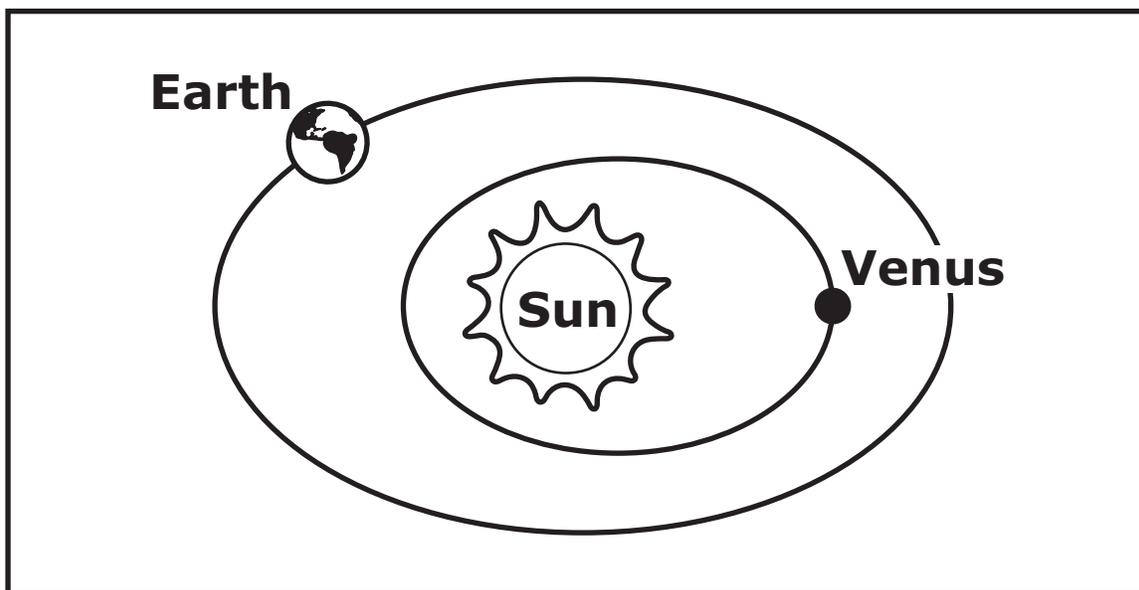
ETS Item Code: TAS01S0403	Content: Science
Item ID: 1231	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.12.6	AAT or UC: AAT
Standard Text: Illustrate how gravity controls the motion of objects in the solar system.	
AAT or UC Text: Understand how the Earth orbits the sun (i.e., gravity can make a smaller object orbit a larger object).	
Category: Forces of Nature	
Correct Answer: B,A,A	

This is about gravity and the motion of planets.

Earth travels in a path around the sun. Venus is a smaller planet than Earth. Venus also travels in a path around the sun.

Point to the diagram.

[For all students, read "This is a diagram of Earth, Venus, and the sun. This is Earth (point to Earth). It travels around the sun. This is Venus (point to Venus). It travels on a path closer to the sun than Earth. This is the sun (point to the sun)."]



Use this information to answer these questions.

Point to and read each question to the student.

Does Venus stay in orbit around the sun because Earth is more massive than Venus?

A. YES

B. NO

Does Earth stay in orbit around the sun because the sun is much more massive than Earth?

A. YES

B. NO

Are planets outside of Earth's gravitational field held in the sun's gravitational field?

A. YES

B. NO

Item Information

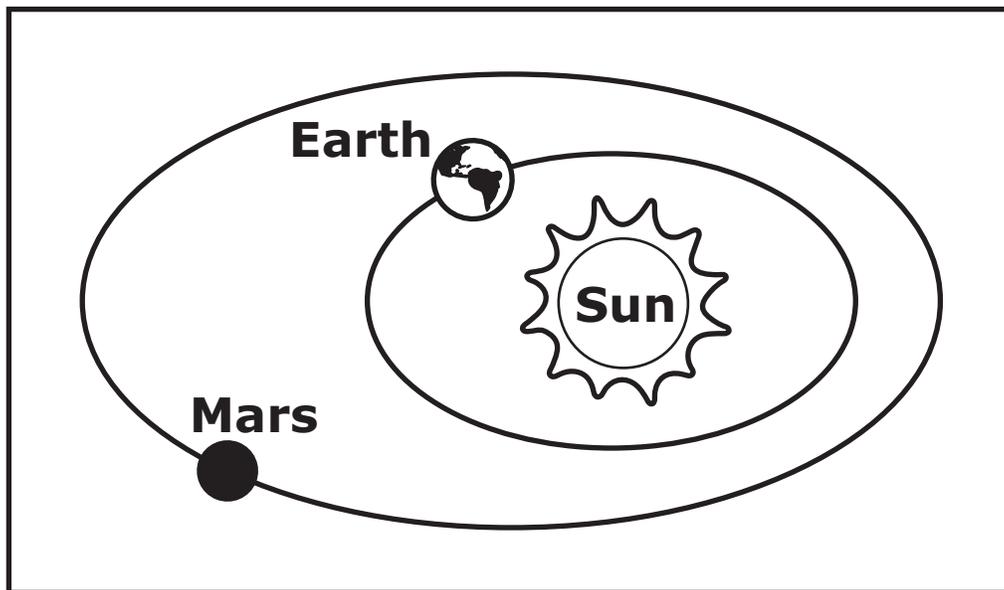
ETS Item Code: TAS01S0404	Content: Science
Item ID: 1232	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.12.6	AAT or UC: AAT
Standard Text: Illustrate how gravity controls the motion of objects in the solar system.	
AAT or UC Text: Understand how the Earth orbits the sun (i.e., gravity can make a smaller object orbit a larger object).	
Category: Forces of Nature	
Correct Answer: A,B,B	

This is about gravity and the motion of planets.

Earth travels in a path around the sun. Mars is a smaller planet than Earth. Mars also travels in a path around the sun.

Point to the diagram.

[For all students, read "This is a diagram of Earth, Mars, and the sun. This is Earth (point to Earth). It travels around the sun. This is Mars (point to Mars). It travels on a path farther from the sun than Earth. This is the sun (point to the sun)."]



Use this information to answer these questions.

Point to and read each question to the student.

Does Mars stay in orbit
around the sun because of
the sun's gravity?

A. YES

B. NO

Does the sun travel in an orbit around Earth?

A. YES

B. NO

Does Earth's gravitational field hold Mars in a path around the sun?

A. YES

B. NO

Tennessee Comprehensive
Assessment Program TCAP
Grade 8 Science
Alternative Assessment
Item Release
Spring 2018



Tennessee Comprehensive Assessment Program

TCAP

Biology Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Biology ALT Items

Item Information

ETS Item Code: TAS01S0445	Content: Science
Item ID: 1245	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.1.3	AAT or UC: UC
Standard Text: Distinguish among proteins, carbohydrates, lipids, and nucleic acids.	
AAT or UC Text: Recognize that different organs in the digestive system have different functions.	
Category: Cells	
Correct Answer: B	

This is about the digestive system.

The digestive system processes food in the body.

Which of these is a true statement about the digestive system?

Point to and read each option to the student.

- A. All of the organs in the digestive system perform the same job.
- B. All of the organs in the digestive system perform a different job.

Item Information

ETS Item Code: TAS01S0446

Content: Science

Item ID: 1246

Grade: 10

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 3210.1.3

AAT or UC: AAT

Standard Text: Distinguish among proteins, carbohydrates, lipids, and nucleic acids.

AAT or UC Text: Identify how the digestive system of the body carries out essential functions (i.e., breakdown and absorption of fats, proteins, and carbohydrates).

Category: Cells

Correct Answer: B

This is about how the digestive system works.

The digestive system breaks down food into nutrients. It then transports the nutrients to the body and removes waste material.

Which of these happens in the digestive system?

Point to and read each option to the student.

- A. The esophagus produces proteins.
- B. The small intestine absorbs fat.
- C. The liver makes carbohydrates.

Item Information

ETS Item Code: TAS01S0447

Content: Science

Item ID: 1247

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 3210.1.3

AAT or UC: AAT

Standard Text: Distinguish among proteins, carbohydrates, lipids, and nucleic acids.

AAT or UC Text: Identify how the digestive system of the body carries out essential functions (i.e., breakdown and absorption of fats, proteins, and carbohydrates).

Category: Cells

Correct Answer: B,A,A

This is about how the digestive system works.

The digestive system breaks down food into nutrients. It then transports the nutrients to the body and removes waste material.

Use this information to answer the questions.

Point to and read each question to the student.

Does the digestive system include the brain, spinal cord, and sensory organs?

A. YES

B. NO

Does the stomach use acid to break down protein?

A. YES

B. NO

Does the digestive system break down fats?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0448

Content: Science

Item ID: 1248

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 3210.1.3

AAT or UC: AAT

Standard Text: Distinguish among proteins, carbohydrates, lipids, and nucleic acids.

AAT or UC Text: Identify how the digestive system of the body carries out essential functions (i.e., breakdown and absorption of fats, proteins, and carbohydrates).

Category: Cells

Correct Answer: B,A,A

This is about how the digestive system works.

The digestive system breaks down food into nutrients. It then transports the nutrients to the body and removes waste material.

Use this information to answer the questions.

Point to and read each question to the student.

Does the digestive system produce new fats?

A. YES

B. NO

Does the digestive system break down carbohydrates?

A. YES

B. NO

Does the digestive system include the mouth, esophagus, and stomach?

A. YES

B. NO

Item Information

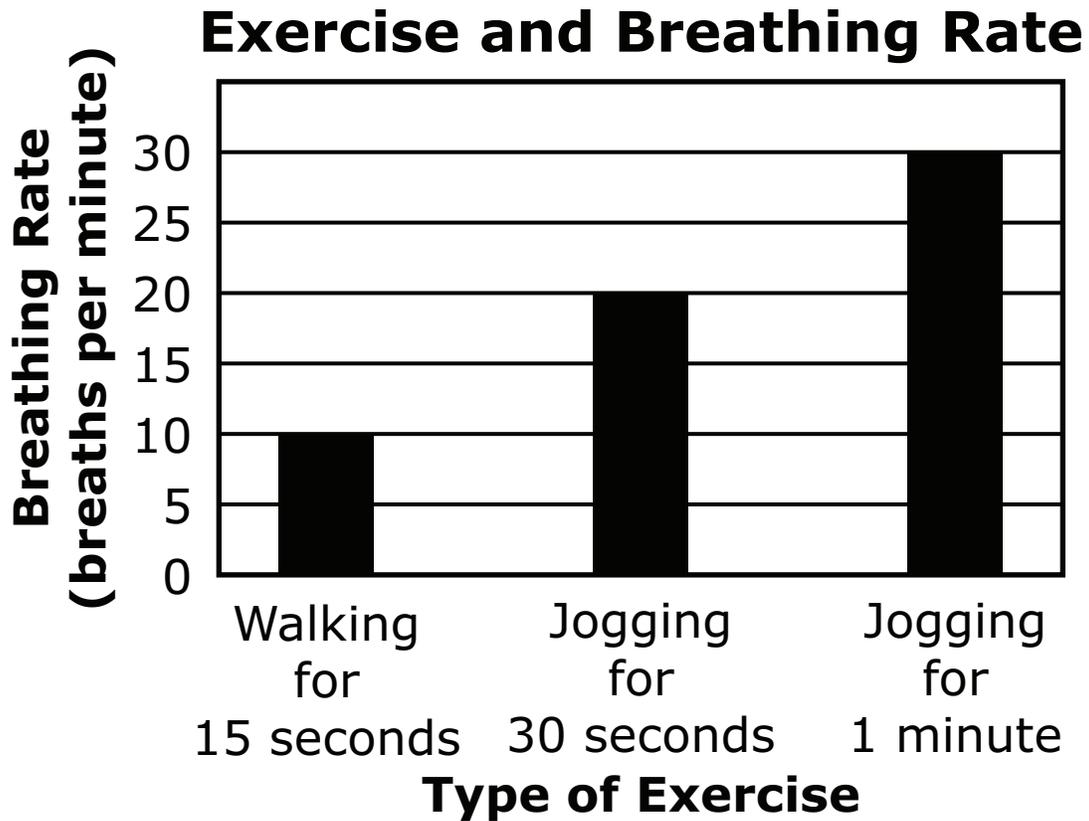
ETS Item Code: TAS01S0449	Content: Science
Item ID: 1249	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.1.5	AAT or UC: UC
Standard Text: Identify how enzymes control chemical reactions in the body.	
AAT or UC Text: Compare data on changes that occur to an organism before and after exercise.	
Category: Cells	
Correct Answer: B	

This is about the changes that occur during exercise.

Many changes happen in a person's body during exercise.

Point to the graph.

[For all students, read "The title of this bar graph is Exercise and Breathing Rate. The y-axis (point to the y-axis) shows the breaths per minute after three forms of exercise for the person who was tested. The x-axis (point to the x-axis) shows what the person had been doing just before the rate was measured. The first bar shows the person's breathing rate after walking for 15 seconds. The rate was 10 breaths per minute. The second bar shows the result when the person had been jogging for 30 seconds. The rate was 20 breaths per minute. The third bar shows the result when the person had been jogging for 1 minute. The breathing rate was 30 breaths per minute."]



Which of these is true about a person's breathing rate right after jogging?

Point to and read each option to the student.

- A. The breathing rate decreases.
- B. The breathing rate increases.

Which statement is true based on the results in the data table?

Point to and read each option to the student.

- A. Student 1 had a higher heart rate at rest than Student 2 had.
- B. Student 2 had a lower heart rate after exercising than Student 1 had.
- C. Student 2's heart rate increased after exercising more than Student 1's heart rate did.

Item Information

ETS Item Code: TAS01S0451	Content: Science
Item ID: 1251	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.1.5	AAT or UC: AAT
Standard Text: Identify how enzymes control chemical reactions in the body.	
AAT or UC Text: Identify how different organisms react to changes (e.g., heart rate, body temperature).	
Category: Cells	
Correct Answer: A,A,B	

This is about how an organism reacts to changes.

When an animal runs, its muscles work hard. The animal's muscles get energy by burning fats and carbohydrates.

Use this information to answer these questions.

Point to and read each question to the student.

Does an animal's breathing rate increase during physical activity?

A. YES

B. NO

Will exercising increase the strength of an animal's muscles?

A. YES

B. NO

Will exercise cause an animal's body temperature to decrease?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0452	Content: Science
Item ID: 1252	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.1.5	AAT or UC: AAT
Standard Text: Identify how enzymes control chemical reactions in the body.	
AAT or UC Text: Identify how different organisms react to changes (e.g., heart rate, body temperature).	
Category: Cells	
Correct Answer: B,B,A	

This is about how an organism reacts to changes.

When an animal runs, its muscles work hard. The animal's muscles get energy by burning fats and carbohydrates.

Use this information to answer these questions.

Point to and read each question to the student.

Does an animal's heart rate decrease during physical activity?

A. YES

B. NO

Will exercise cause an animal's muscles to weaken?

A. YES

B. NO

Will exercise cause an animal's body temperature to increase?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0453	Content: Science
Item ID: 1241	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.1.6	AAT or UC: UC
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Recognize that organisms are composed of cells.	
Category: Cells	
Correct Answer: A	

This is about cells.

Cells are the building blocks of living things.

Which of these is correct about cells?

Point to and read each option to the student.

- A. All plants are made up of cells.
- B. All rocks are made up of cells.

Item Information

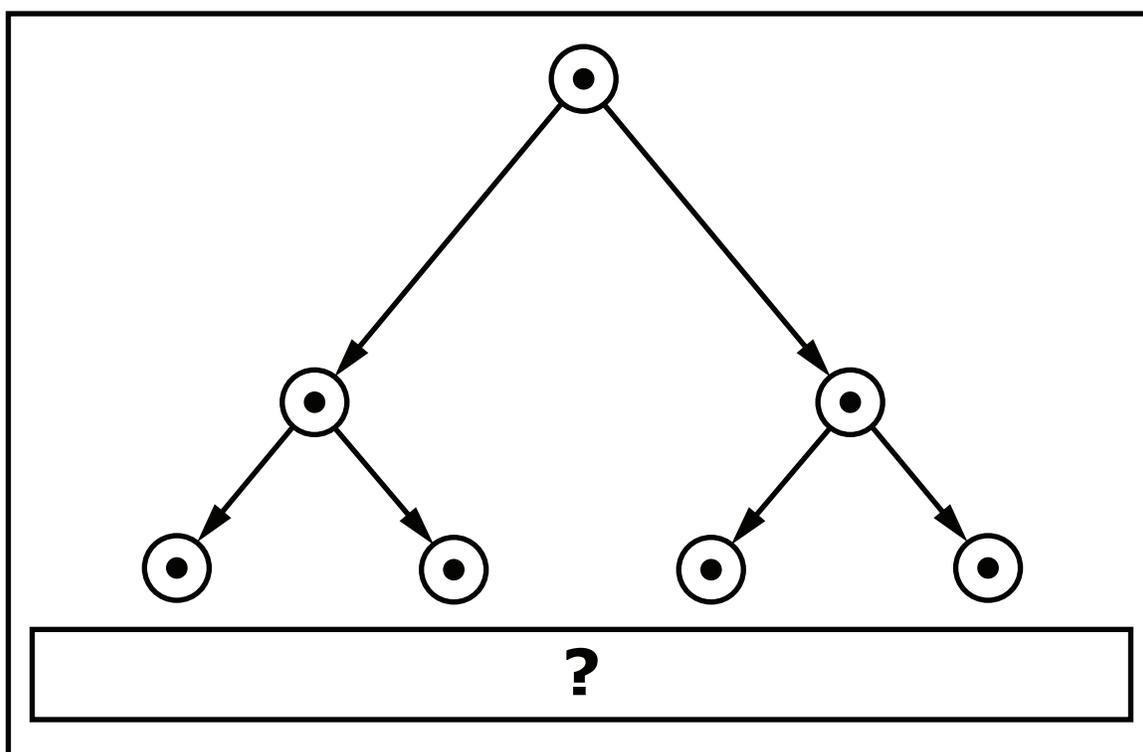
ETS Item Code: TAS01S0454	Content: Science
Item ID: 1242	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.1.6	AAT or UC: AAT
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Use a model to identify how growth occurs when cells multiply.	
Category: Cells	
Correct Answer: A	

This is about cells.

Cells can divide to make new cells.

Point to the diagram.

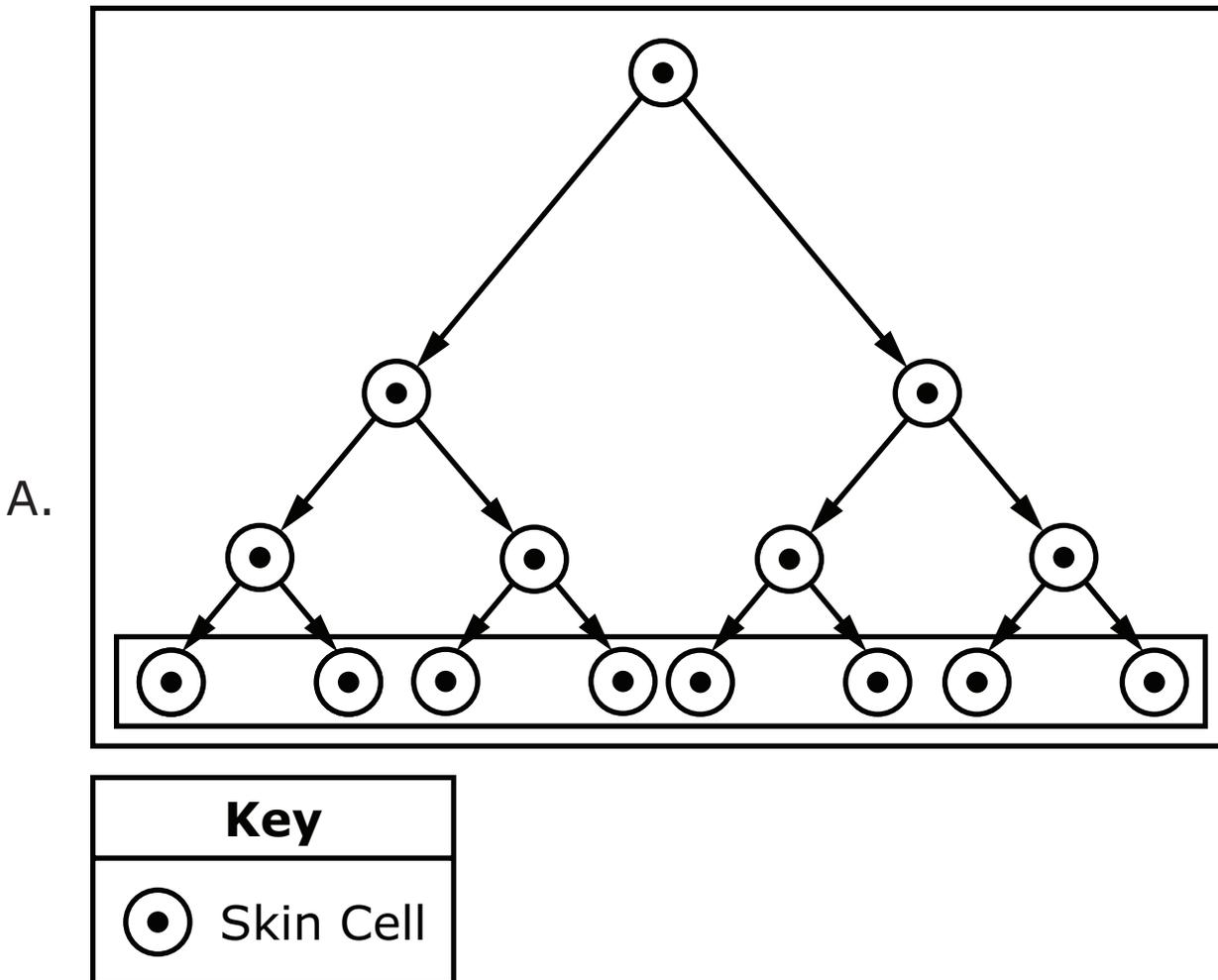
[For all students, read "This is a model of skin cells multiplying, or making new cells."]



Which of these correctly completes the model?

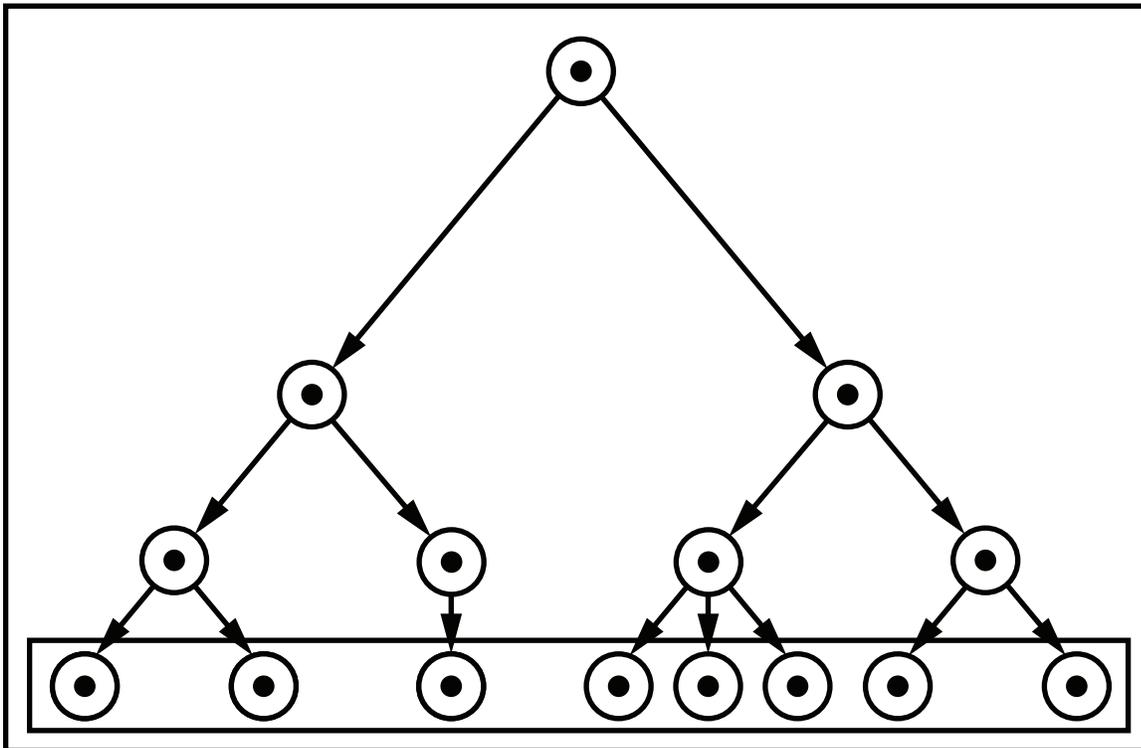
Point to and read each option to the student.

[For students with visual impairment, read "This is a picture of the completed diagram. There are four pairs of cells on the fourth row."]

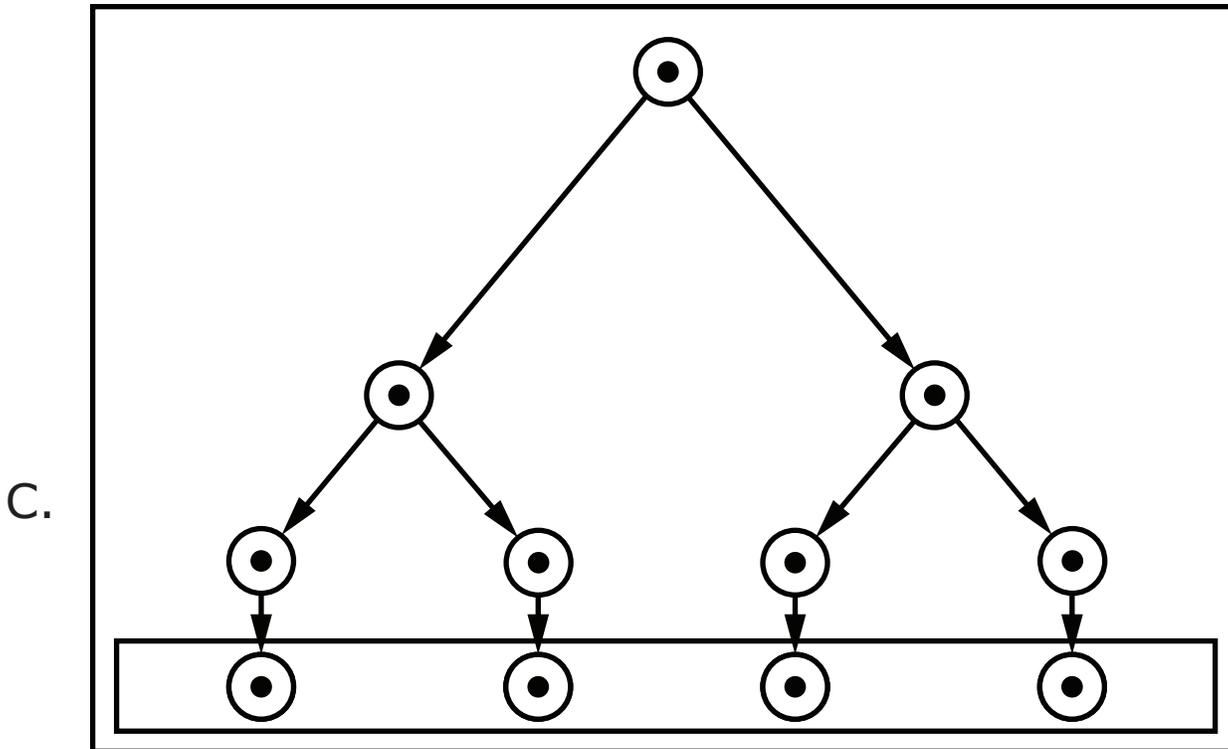


[For students with visual impairment, read "This is a picture of the completed diagram. The fourth row has a pair of cells, one single cell, one group of three cells, and another pair of cells."]

B.



[For students with visual impairment, read "This is a picture of the completed diagram. There are four single cells on the fourth row."]



Biology ALT Items

Item Information

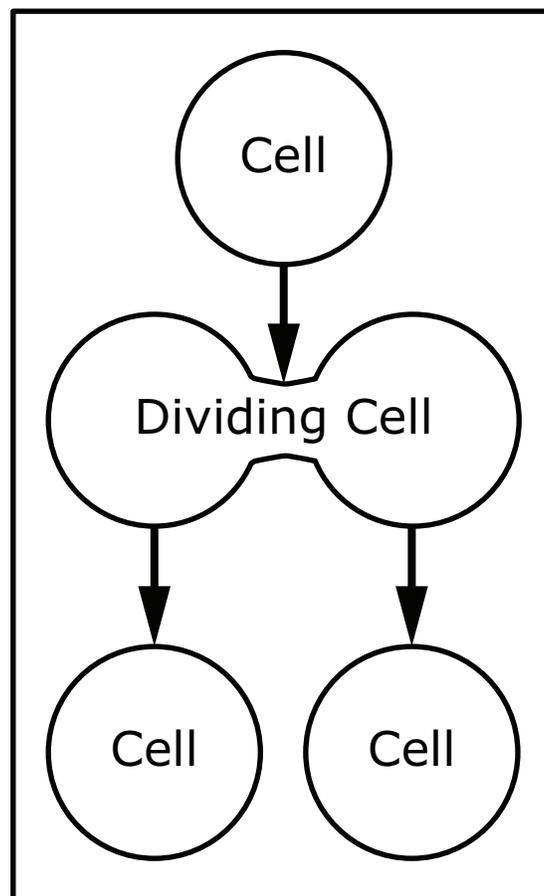
ETS Item Code: TAS01S0455	Content: Science
Item ID: 1243	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.1.6	AAT or UC: AAT
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Use a model to identify how growth occurs when cells multiply.	
Category: Cells	
Correct Answer: A,B,B	

This is about cells multiplying.

Cells multiply through cell division. Cell division is a process that helps organisms grow.

Point to the model.

[For all students, read "This model shows how cells multiply, or make new cells. One cell divides into two cells."]



Use this information to answer the questions.

Point to and read each question to the student.

Do cells divide into new cells instead of growing larger and larger?

A. YES

B. NO

Does cell division occur only in one area of the body?

A. YES

B. NO

Does this model show one cell dividing into three cells?

A. YES

B. NO

Item Information

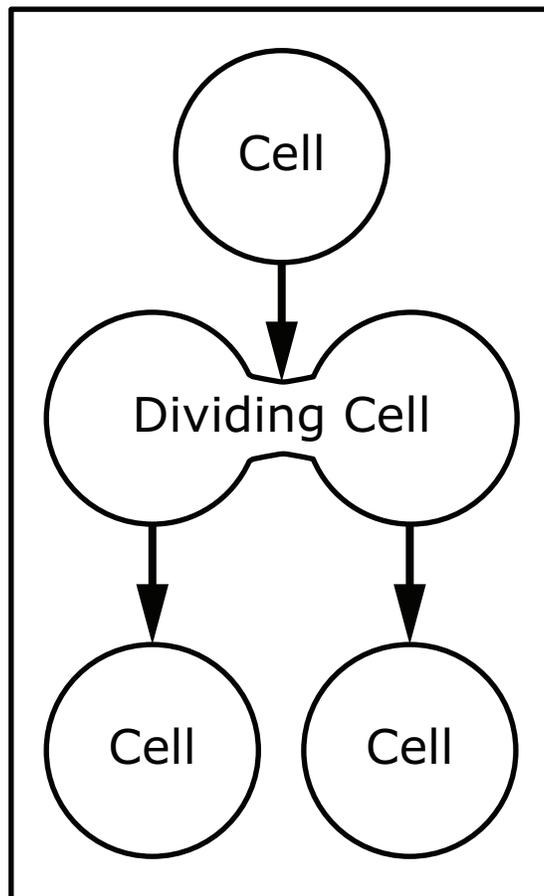
ETS Item Code: TAS01S0456	Content: Science
Item ID: 1244	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.1.6	AAT or UC: AAT
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Use a model to identify how growth occurs when cells multiply.	
Category: Cells	
Correct Answer: B,A,A	

This is about cells multiplying.

Cells multiply through cell division. Cell division is a process that helps organisms grow.

Point to the model.

[For all students, read "This model shows how cells multiply, or make new cells. One cell divides into two cells."]



Use this information to answer the questions.

Point to and read each question to the student.

Do organisms grow because their cells get larger? A. YES B. NO

Does cell division help replace worn out and old cells in the body? A. YES B. NO

Can some plants use cell division to regrow parts that have been removed? A. YES B. NO

Item Information

ETS Item Code: TAS02S0649	Content: Science
Item ID:	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.1.6	AAT or UC: UC
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Recognize that organisms are composed of cells.	
Category: Cells	
Correct Answer: A	

This is about cells.

Cells are building blocks of living things.

Which of these is true about cells?

Point to and read each option to the student.

- A. Animals are made up of cells.
- B. Cups are made up of cells.

Item Information

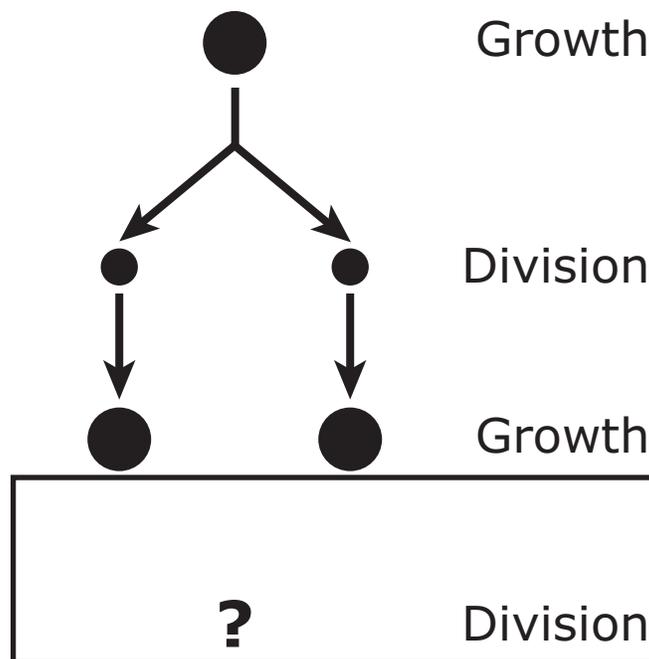
ETS Item Code: TAS02S0650	Content: Science
Item ID:	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.1.6	AAT or UC: AAT
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Use a model to identify how growth occurs when cells multiply.	
Category: Cells	
Correct Answer: B	

This is about cells.

A cell grows to a certain size and then divides into new cells.

Point to the model.

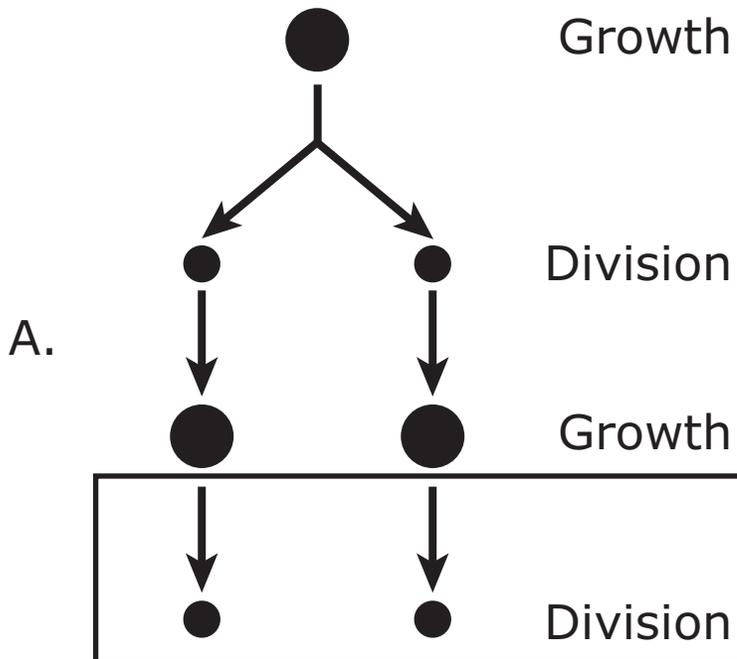
[For all students, read "This is a model of a cell found in the human body. The cell has a label that says growth. (Point to the top of the diagram.) The cell has to grow to a certain size before it can divide. When the cell is the right size, it splits into two small cells. The two small cells have a label that says division. (Point to the two small cells.) These two cells will grow to a certain size before each one divides into new cells. (Point to the two larger cells.) The two larger cells have a label that says growth. The fourth row of this model has a question mark and a label that says division."]



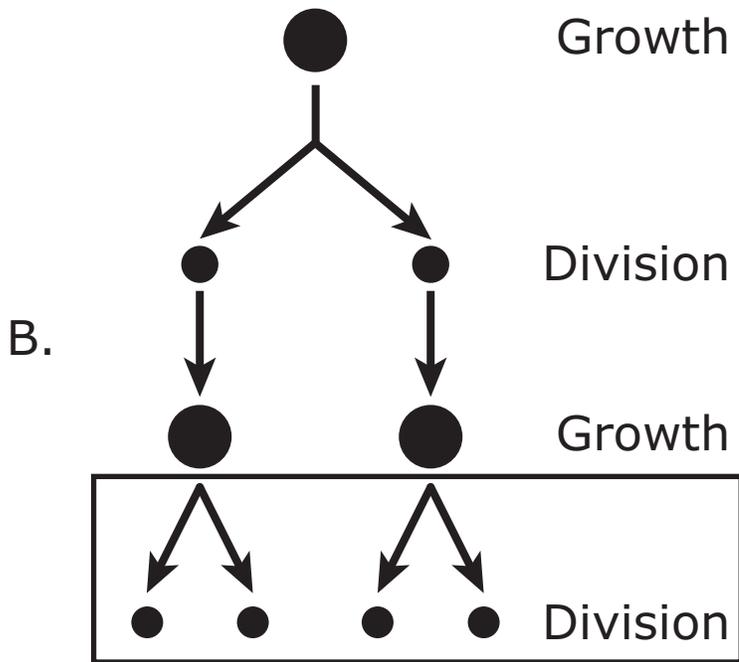
Which is the **best** way to complete the model?

Point to and read each option to the student.

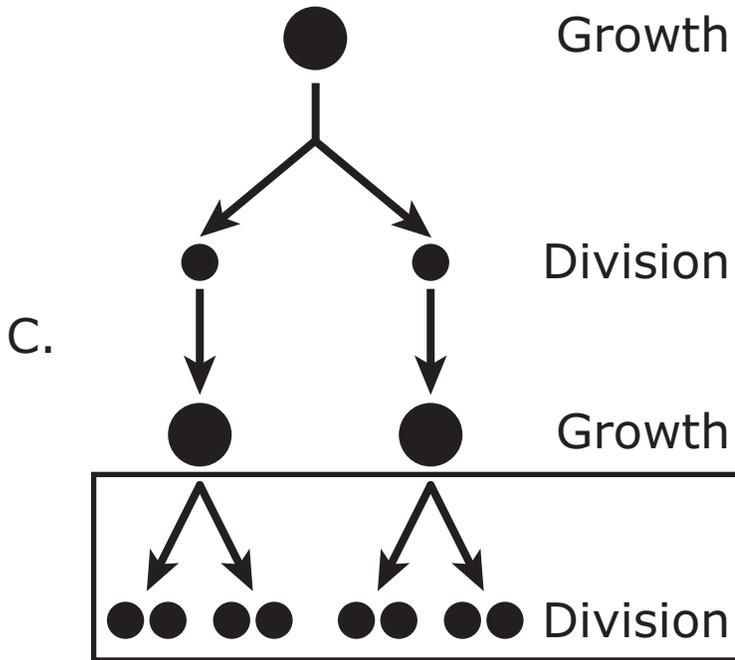
[For all students, read "This is a picture of the completed model. Each full-grown cell produces one small cell (point to the two cells in the fourth row). The two cells have a label that says division."]



[For all students, read "This is a picture of the completed model. Each full-grown cell produces two small cells (point to the four cells in the fourth row). The four cells have a label that says division."]



[For all students, read "This is a picture of the completed model. Each full-grown cell produces two pairs of small cells (point to the four pairs of cells in the fourth row). The four pairs of cells have a label that says division."]



Biology ALT Items

Item Information

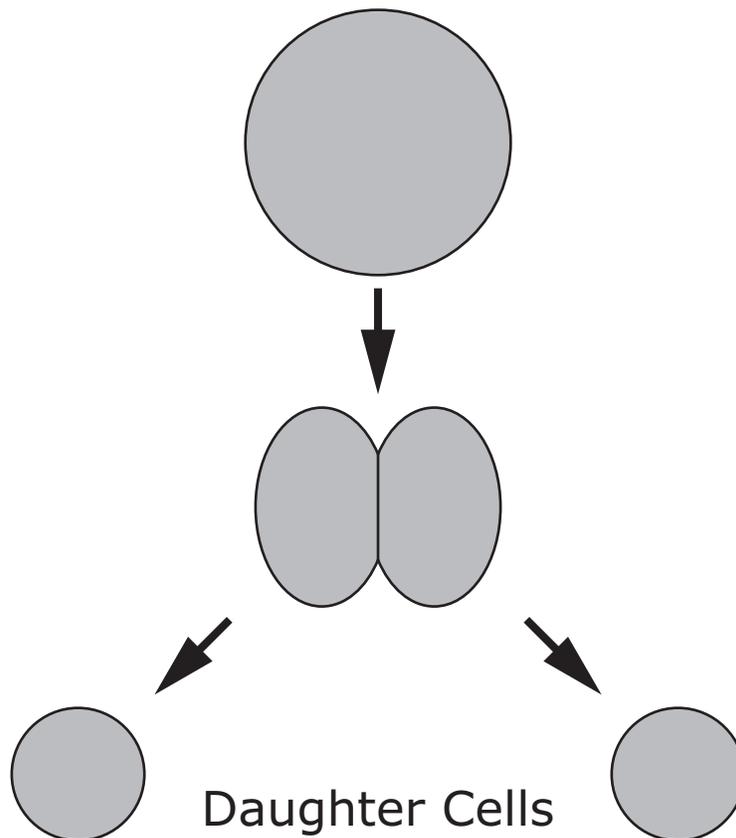
ETS Item Code: TAS02S0651	Content: Science
Item ID:	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.1.6	AAT or UC: AAT
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Use a model to identify how growth occurs when cells multiply.	
Category: Cells	
Correct Answer: A,B,A	

This is about cell division.

Cell division is a process that helps organisms grow. Cells increase in number because of cell division. When more cells are made by cell division, the tissue made up of the cells grows in size.

Point to the diagram.

[For all students, read "This is a diagram of a cell multiplying. (Point to the cell on top.) This cell divides into two. (Point to the attached cells.) These two new cells are called daughter cells (point to the daughter cells)."]



Use this information to answer the questions.

Point to and read each question to the student.

Does cell division occur in parts of the human body?

A. YES

B. NO

Does a single cell divide into four new cells?

A. YES

B. NO

Does cell division help a lizard regrow a damaged tail?

A. YES

B. NO

Item Information

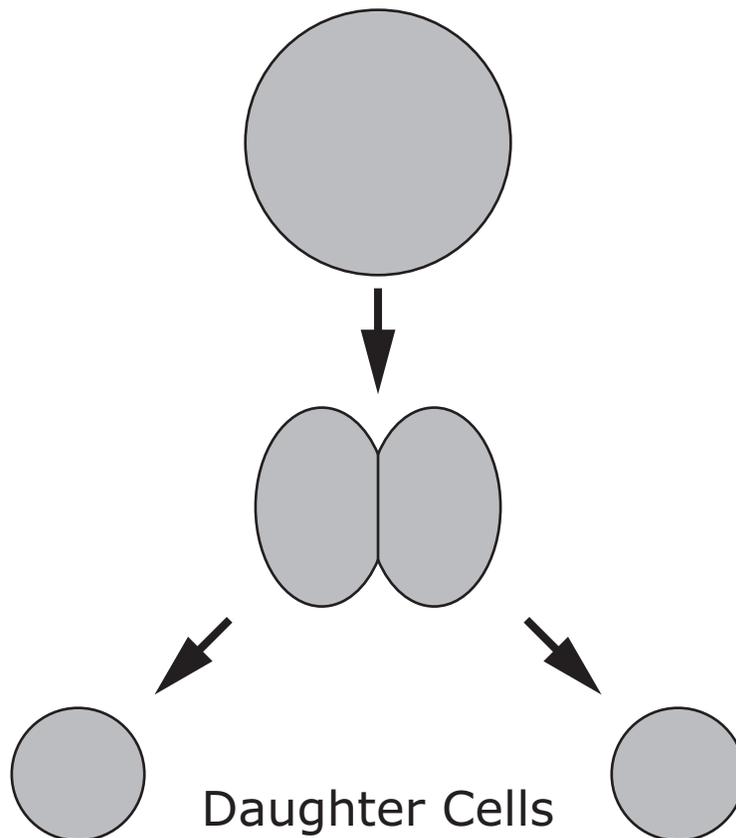
ETS Item Code: TAS02S0652	Content: Science
Item ID:	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.1.6	AAT or UC: AAT
Standard Text: Determine the relationship between cell growth and cell reproduction.	
AAT or UC Text: Use a model to identify how growth occurs when cells multiply.	
Category: Cells	
Correct Answer: A,A,A	

This is about cell division.

Cell division is a process that helps organisms grow. Cells increase in number because of cell division. When more cells are made by cell division, the tissue made up of the cells grows in size.

Point to the diagram.

[For all students, read "This is a diagram of a cell multiplying. (Point to the cell on top.) This cell divides into two. (Point to the attached cells.) These two new cells are called daughter cells (point to the daughter cells)."]



Use this information to answer the questions.

Point to and read each question to the student.

Does cell division help a baby get larger? A. YES B. NO

Does cell division help heal an injury like a paper cut? A. YES B. NO

Does one cell divide into one pair of cells? A. YES B. NO

Item Information

ETS Item Code: TAS01S0457

Content: Science

Item ID: 1253

Grade: 10

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 3210.2.2

AAT or UC: UC

Standard Text: Interpret the relationship between environmental factors and fluctuations in population size.

AAT or UC Text: Identify food and shelter needs for Tennessee wildlife.

Category: Interdependence

Correct Answer: A

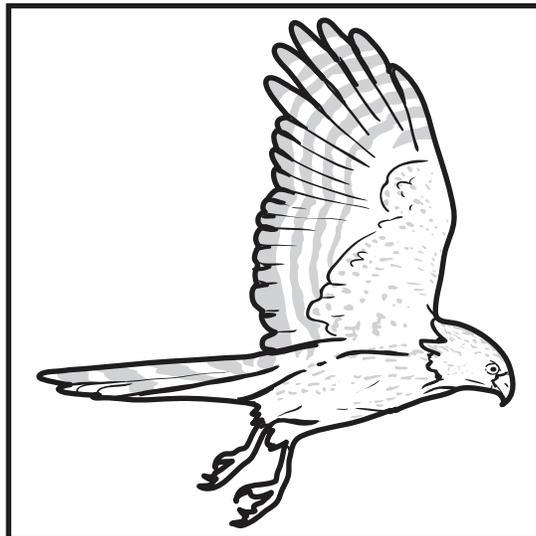
This is about food and shelter for animals.

Hawks are predators that can be found across Tennessee.

Point to the picture.

[For all students, read "This picture shows a hawk in its habitat."]

Hawk



Why do hawks hunt other animals?

Point to and read each option to the student.

- A. Hawks hunt other animals for food.
- B. Hawks hunt other animals for shelter.

Item Information

ETS Item Code: TAS01S0458	Content: Science
Item ID: 1254	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.2.2	AAT or UC: AAT
Standard Text: Interpret the relationship between environmental factors and fluctuations in population size.	
AAT or UC Text: Recognize the relationship between population size and available resources for food and shelter (e.g., a graphical representation).	
Category: Interdependence	
Correct Answer: B	

This is about population size.

Tennessee is home to many species of frogs and toads. Frogs and toads are amphibians. This means they spend part of their lives in water and part of their lives on land. The young frogs and toads are called tadpoles, and they must live in water. Adult frogs and toads can live on land.

What will happen to an amphibian population after a long time without rain?

Point to and read each option to the student.

- A. The amphibian population will begin to increase.
- B. The amphibian population will begin to decrease.
- C. The amphibian population will remain the same.

Item Information

ETS Item Code:	TAS01S0459	Content:	Science
Item ID:	1255	Grade:	10
DOK Level:	4	Item Type:	MP
Level:	3a	Points:	3
Standard Code:	3210.2.2	AAT or UC:	AAT
Standard Text:	Interpret the relationship between environmental factors and fluctuations in population size.		
AAT or UC Text:	Recognize the relationship between population size and available resources for food and shelter (e.g., a graphical representation).		
Category:	Interdependence		
Correct Answer:	A,B,A		

This is about population size.

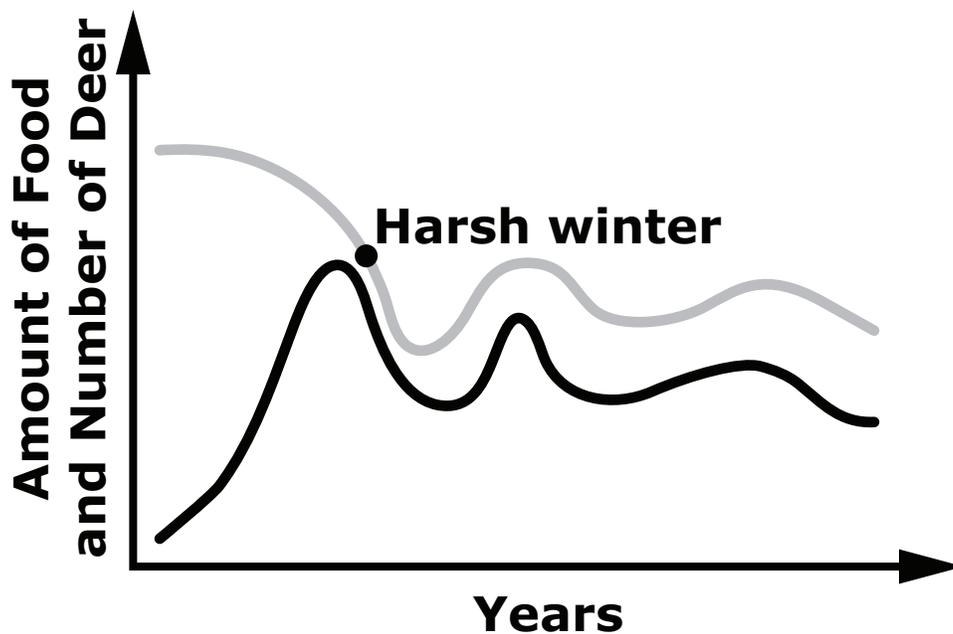
A deer population grows when deer reproduce. The amount of food that is available for the deer limits the population size.

Deer are herbivores. Herbivores depend on plants for food.

Point to the graph.

[For all students, read "The graph shows the relationship between deer food and deer population size over time. The y-axis shows the 'Amount of Food and Number of Deer' (point to the y-axis). The x-axis shows the 'Years' (point to the x-axis). The deer population and plant population changed over time (point to the graph). Many factors can damage plants. The dot represents a harsh winter that caused habitat damage (point to the dot on the graph)."]

Amount of Food and Number of Deer Over Time



Key	
	Plants (deer food)
	Deer

Use the information in the graph to answer these questions.

Point to and read each question to the student.

Did the amount of deer food decline immediately after the harsh winter?

A. YES

B. NO

Did the deer population size increase as the amount of deer food decreased?

A. YES

B. NO

If the deer population increases, will some of the deer population be unable to find food?

A. YES

B. NO

Item Information

ETS Item Code:	TAS01S0460	Content:	Science
Item ID:	1256	Grade:	10
DOK Level:	4	Item Type:	MP
Level:	3b	Points:	3
Standard Code:	3210.2.2	AAT or UC:	AAT
Standard Text:	Interpret the relationship between environmental factors and fluctuations in population size.		
AAT or UC Text:	Recognize the relationship between population size and available resources for food and shelter (e.g., a graphical representation).		
Category:	Interdependence		
Correct Answer:	B,A,A		

This is about population size.

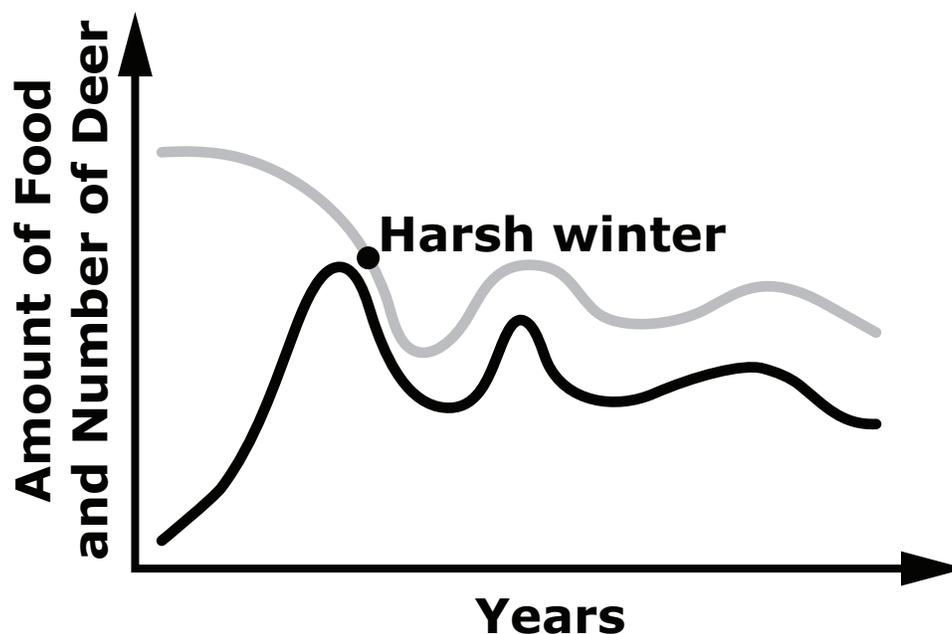
A deer population grows when deer reproduce. The amount of food that is available for the deer limits the population size.

Deer are herbivores. Herbivores depend on plants for food.

Point to the graph.

[For all students, read "The graph shows the relationship between deer food and deer population size over time. The y-axis shows the 'Amount of Food and Number of Deer' (point to the y-axis). The x-axis shows the 'Years' (point to the x-axis). The deer population and plant population changed over time (point to the graph). Many factors can damage plants. The dot represents a harsh winter that caused habitat damage (point to the dot on the graph)."]

Amount of Food and Number of Deer Over Time



Key	
	Plants (deer food)
	Deer

Use the information in the graph to answer these questions.

Point to and read each question to the student.

Did the amount of deer food increase immediately after the harsh winter?

A. YES

B. NO

Did the availability of food increase as the deer population decreased?

A. YES

B. NO

If food becomes limited, will the deer population size decrease?

A. YES

B. NO

Item Information

ETS Item Code: TAS02S0653

Content: Science

Item ID:

Grade: 10

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 3210.2.2

AAT or UC: UC

Standard Text: Interpret the relationship between environmental factors and fluctuations in population size.

AAT or UC Text: Identify food and shelter needs for Tennessee wildlife.

Category: Interdependence

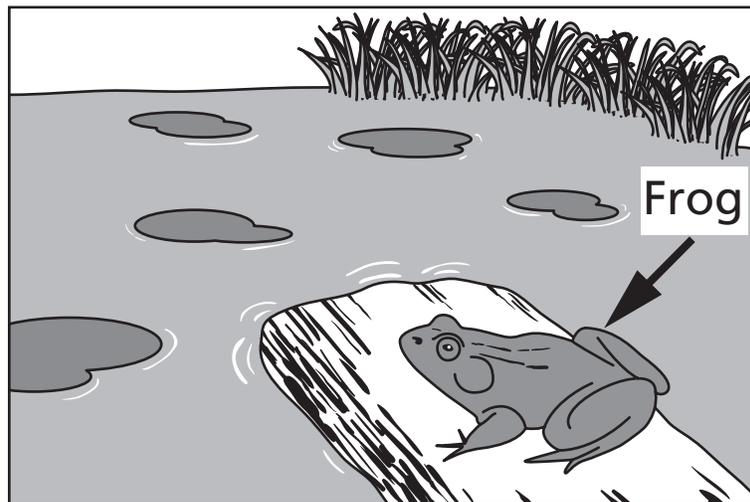
Correct Answer: A

This is about how animals get food.

Frogs need to live near water. Frogs hunt insects and small fish.

Point to the picture.

[For all students, read "This picture shows a frog in its habitat."]



Which habitat is **best** for providing food and shelter for frogs?

Point to and read each option to the student.

- A. wetland
- B. tundra

Item Information

ETS Item Code: TAS02S0654	Content: Science
Item ID:	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.2.2	AAT or UC: AAT
Standard Text: Interpret the relationship between environmental factors and fluctuations in population size.	
AAT or UC Text: Recognize the relationship between population size and available resources for food and shelter (e.g., a graphical representation).	
Category: Interdependence	
Correct Answer: B	

This is about resources and population size.

A post oak tree is a species that grows in Tennessee. It survives in dry, rocky, or sandy soil.

What would happen to a population of post oak trees after a long period of flooding?

Point to and read each option to the student.

- A. The post oak tree population will begin to increase.
- B. The post oak tree population will begin to decrease.
- C. The post oak tree population will remain the same.

Biology ALT Items

Item Information

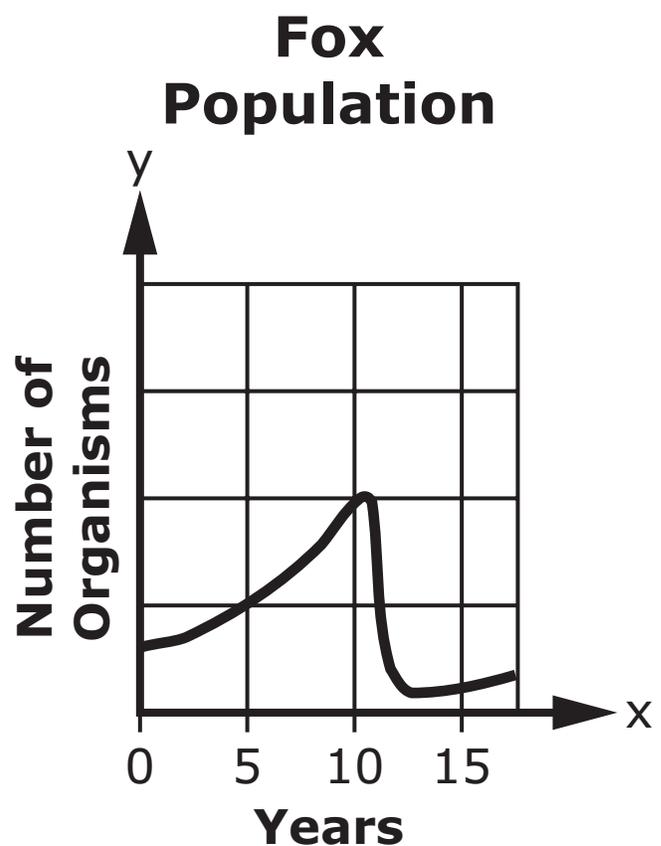
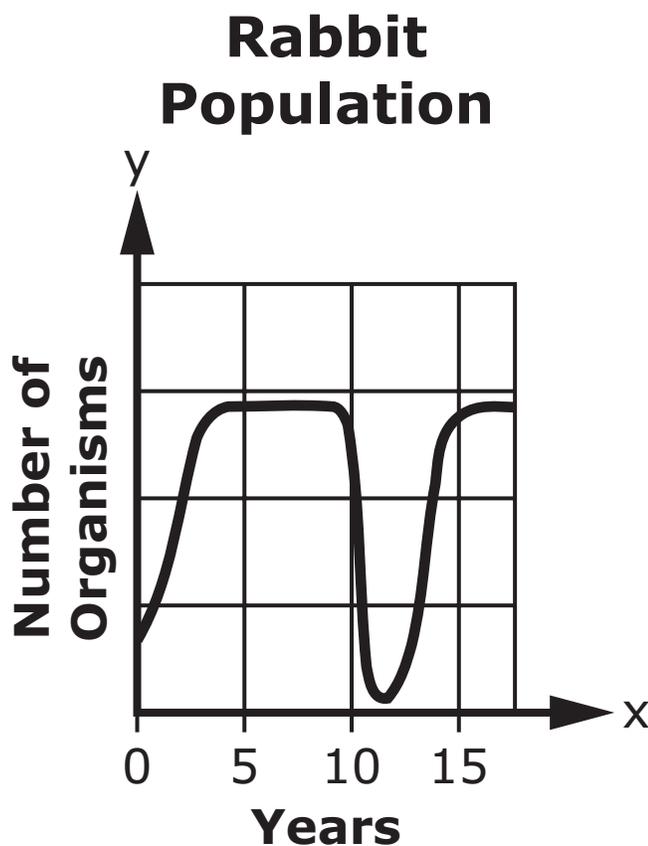
ETS Item Code:	TAS02S0655	Content:	Science
Item ID:		Grade:	10
DOK Level:	4	Item Type:	MP
Level:	3a	Points:	3
Standard Code:	3210.2.2	AAT or UC:	AAT
Standard Text:	Interpret the relationship between environmental factors and fluctuations in population size.		
AAT or UC Text:	Recognize the relationship between population size and available resources for food and shelter (e.g., a graphical representation).		
Category:	Interdependence		
Correct Answer:	B,A,A		

This is about population size and resources.

Populations of animals increase when there is a lot of food in their environment. Populations of animals decrease when there is not a lot of food in their environment. The fox is the predator of the rabbit.

Point to the graphs.

[For all students, read "The two graphs show a rabbit population and a fox population in the same habitat. The graph on the left shows a rabbit population size over 17 years. The y-axis shows the 'Number of Organisms' (point to the y-axis). The x-axis shows the 'Years' (point to the x-axis). The population increases between 0 and 4 years. Then, the population stays the same between 4 and 9 years. Then, the population decreases between 9 and 12 years. Then, the population increases between 12 and 14 years. Then, the population stays the same between 14 and 17 years. The graph on the right shows the fox population over 17 years. The y-axis shows the 'Number of Organisms' (point to the y-axis). The x-axis shows the 'Years' (point to the x-axis). The population size increases between 0 and 11 years. Then, the population decreases between 11 and 13 years. Then, the population increases between 13 and 17 years."]



Use the information in the graphs to answer these questions.

Point to and read each question to the student.

Did the rabbit population have a food shortage in year 5?

A. YES

B. NO

Did the fox population increase after year 15?

A. YES

B. NO

Did a decrease in the rabbit population cause a decrease in the fox population?

A. YES

B. NO

Item Information

ETS Item Code:	TAS02S0656	Content:	Science
Item ID:		Grade:	10
DOK Level:	4	Item Type:	MP
Level:	3b	Points:	3
Standard Code:	3210.2.2	AAT or UC:	AAT
Standard Text:	Interpret the relationship between environmental factors and fluctuations in population size.		
AAT or UC Text:	Recognize the relationship between population size and available resources for food and shelter (e.g., a graphical representation).		
Category:	Interdependence		
Correct Answer:	A,B,B		

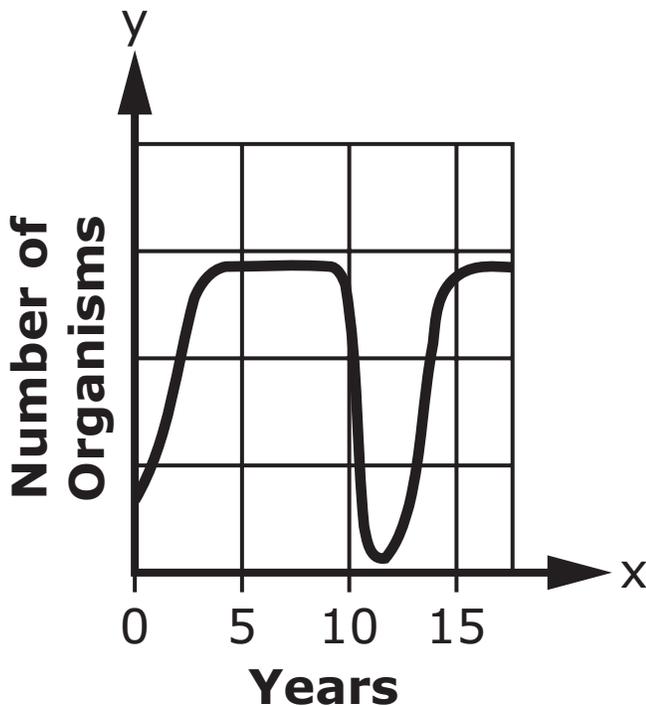
This is about population size and resources.

Populations of animals increase when there is a lot of food in their environment. Populations of animals decrease when there is not a lot of food in their environment. The fox is the predator of the rabbit.

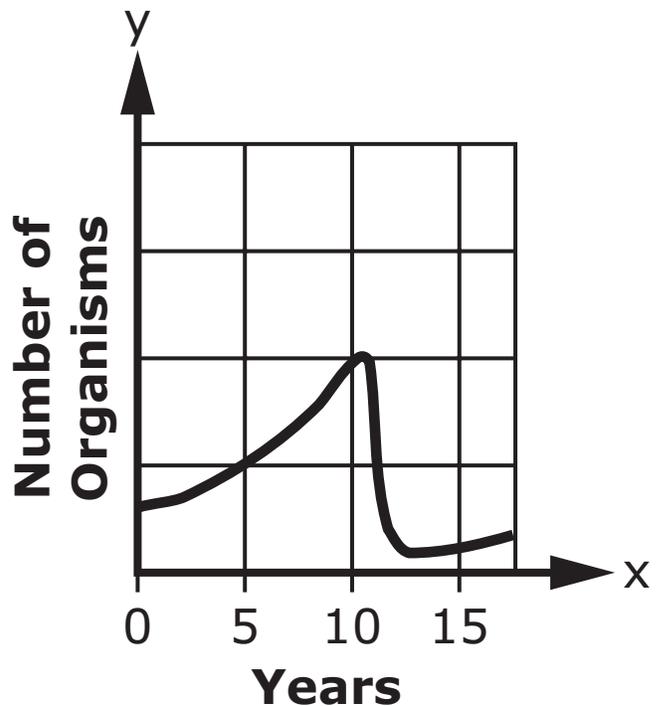
Point to the graphs.

[For all students, read "The two graphs show a rabbit population and a fox population in the same habitat. The graph on the left shows a rabbit population size over 17 years. The y-axis shows the 'Number of Organisms' (point to the y-axis). The x-axis shows the 'Years' (point to the x-axis). The population increases between 0 and 4 years. Then, the population stays the same between 4 and 9 years. Then, the population decreases between 9 and 12 years. Then, the population increases between 12 and 14 years. Then, the population stays the same between 14 and 17 years. The graph on the right shows the fox population over 17 years. The y-axis shows the 'Number of Organisms' (point to the y-axis). The x-axis shows the 'Years' (point to the x-axis). The population size increases between 0 and 11 years. Then, the population decreases between 11 and 13 years. Then, the population increases between 13 and 17 years."]

**Rabbit
Population**



**Fox
Population**



Use the information in the graphs to answer these questions.

Point to and read each question to the student.

Did the fox population have enough food in year 5?

A. YES

B. NO

Did the rabbit population increase between year 5 and year 10?

A. YES

B. NO

Did an increase in the fox population cause an increase in the rabbit population?

A. YES

B. NO

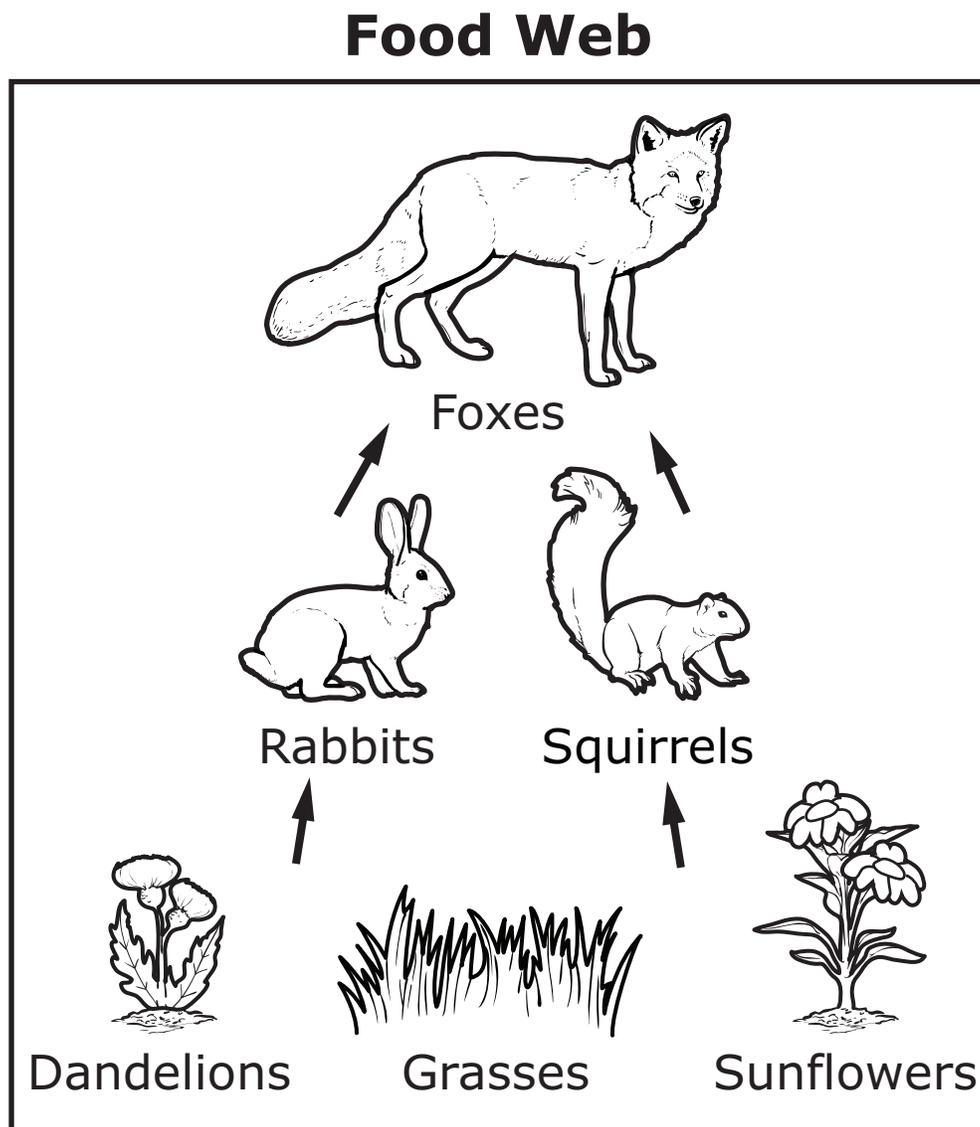
Item Information

ETS Item Code: TAS01S0461	Content: Science
Item ID: 1261	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.3.1	AAT or UC: UC
Standard Text: Interpret a diagram that illustrates energy flow in an ecosystem.	
AAT or UC Text: Recognize that there are generally fewer organisms at higher levels of a food web (e.g., a graphical representation).	
Category: Flow of Matter and Energy	
Correct Answer: A	

This is about food webs.

Point to the diagram.

[For all students, read "This is a diagram of a food web. There are producers at the bottom level of the food web (point to the Dandelions, Grasses, and Sunflowers). There are herbivores at the middle level of the food web (point to the rabbit and squirrel). There are carnivores at the top level of the food web (point to the fox)."]



Which part of the food web contains the **most** organisms?

Point to and read each option to the student.

- A. producers
- B. carnivores

Item Information

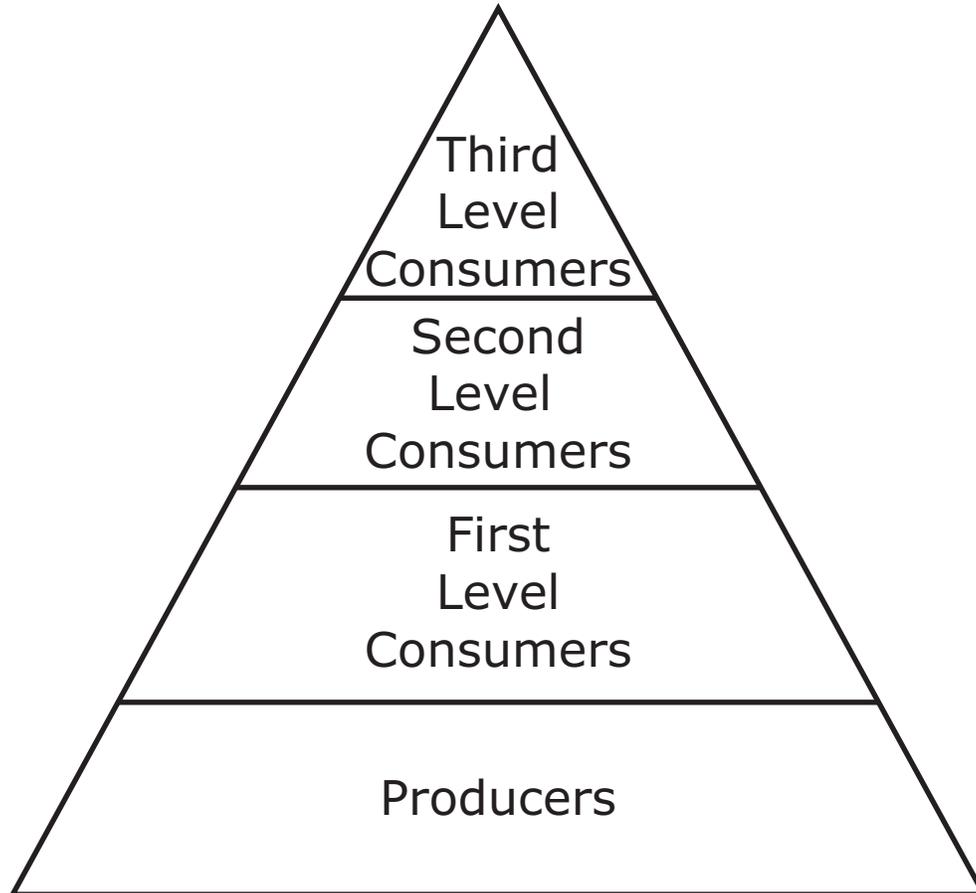
ETS Item Code: TAS01S0462	Content: Science
Item ID: 1262	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.3.1	AAT or UC: AAT
Standard Text: Interpret a diagram that illustrates energy flow in an ecosystem.	
AAT or UC Text: Use a graphical representation to identify the changes in the amount of matter or energy as it travels through a food web.	
Category: Flow of Matter and Energy	
Correct Answer: A	

This is about energy moving between organisms in an ecosystem.

Point to the diagram.

[For all students, read "This is an energy pyramid diagram. The size of each section represents the amount of available energy. This level represents the Producers (point to the Producers). This level represents the First Level Consumers (point to the First Level Consumers). This level represents the Second Level Consumers (point to the Second Level Consumers). This level represents the Third Level Consumers (point to the Third Level Consumers)."]

Energy Pyramid



Which of these has the **greatest** amount of available energy?

Point to and read each option to the student.

- A. First Level Consumers
- B. Second Level Consumers
- C. Third Level Consumers

Item Information

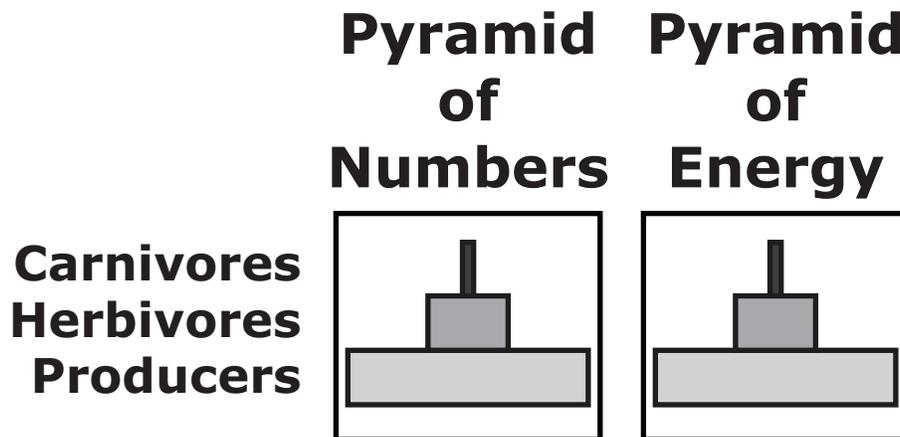
ETS Item Code: TAS01S0463	Content: Science
Item ID: 1263	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.3.1	AAT or UC: AAT
Standard Text: Interpret a diagram that illustrates energy flow in an ecosystem.	
AAT or UC Text: Use a graphical representation to identify the changes in the amount of matter or energy as it travels through a food web.	
Category: Flow of Matter and Energy	
Correct Answer: B,A,A	

This is about energy moving between organisms in an ecosystem.

An ecological pyramid has many levels.

Point to the diagram.

[For all students, read "The diagram shows two ecological pyramids. The 'Pyramid of Numbers' represents the number of organisms living in an ecosystem (point to the Pyramid of Numbers). The 'Pyramid of Energy' represents the amount of energy in the environment (point to the Pyramid of Energy). The bottom level of each pyramid represents the Producers (point to the Producers on each pyramid). The middle level of each pyramid represents the Herbivores (point to the Herbivores on each pyramid). The top level of each pyramid represents the Carnivores (point to the Carnivores on each pyramid)."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Point to the Pyramid of Numbers.

What happens to the number of organisms in the Pyramid of Numbers moving up from Producers to Carnivores?

A. increases B. decreases

Point to the Pyramid of Numbers.

What happens to the number of organisms in the Pyramid of Numbers moving down from Carnivores to Herbivores?

A. increases B. decreases

Point to the Pyramid of Energy.

What happens to the amount of energy available in the Pyramid of Energy moving down from Carnivores to Producers?

A. increases B. decreases

Item Information

ETS Item Code: TAS01S0464

Content: Science

Item ID: 1264

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 3210.3.1

AAT or UC: AAT

Standard Text: Interpret a diagram that illustrates energy flow in an ecosystem.

AAT or UC Text: Use a graphical representation to identify the changes in the amount of matter or energy as it travels through a food web.

Category: Flow of Matter and Energy

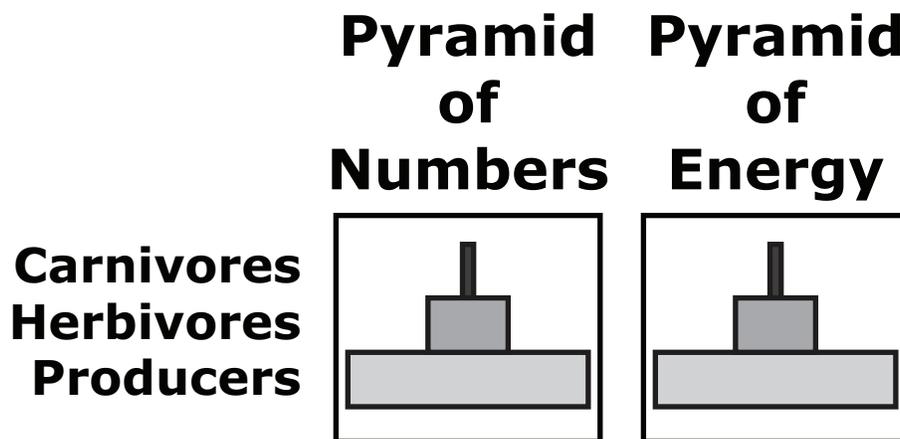
Correct Answer: A,B,B

This is about energy moving between organisms in an ecosystem.

An ecological pyramid has many levels.

Point to the diagram.

[For all students, read "The diagram shows two ecological pyramids. The 'Pyramid of Numbers' represents the number of organisms living in an ecosystem (point to the Pyramid of Numbers). The 'Pyramid of Energy' represents the amount of energy in the environment (point to the Pyramid of Energy). The bottom level of each pyramid represents the Producers (point to the Producers on each pyramid). The middle level of each pyramid represents the Herbivores (point to the Herbivores on each pyramid). The top level of each pyramid represents the Carnivores (point to the Carnivores on each pyramid)."]



Use the diagram to answer these questions.

Point to and read each question to the student.

Point to the Pyramid of Numbers.

What happens to the number of organisms in the Pyramid of Numbers moving down from Carnivores to Producers?

A. increases B. decreases

Point to the Pyramid of Numbers.

What happens to the number of organisms in the Pyramid of Numbers moving up from Herbivores to Carnivores?

A. increases B. decreases

Point to the Pyramid of Energy.

What happens to the amount of energy available in the Pyramid of Energy moving up from Producers to Herbivores?

A. increases B. decreases

Item Information

ETS Item Code: TAS01S0465	Content: Science
Item ID: 1257	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.3.3	AAT or UC: UC
Standard Text: Compare and contrast photosynthesis and cellular respiration in terms of energy transformation.	
AAT or UC Text: Understand oxygen allows animal cells to produce energy from food.	
Category: Flow of Matter and Energy	
Correct Answer: A	

This is about energy and cells.

An animal cell changes a gas and nutrients into energy.

Which gas is needed for this process?

Point to and read each option to the student.

- A. oxygen
- B. carbon dioxide

Item Information

ETS Item Code: TAS01S0466	Content: Science
Item ID: 1258	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.3.3	AAT or UC: AAT
Standard Text: Compare and contrast photosynthesis and cellular respiration in terms of energy transformation.	
AAT or UC Text: Match photosynthesis to the storing of energy and respiration to the release of stored energy.	
Category: Flow of Matter and Energy	
Correct Answer: B	

This is about plant cells.

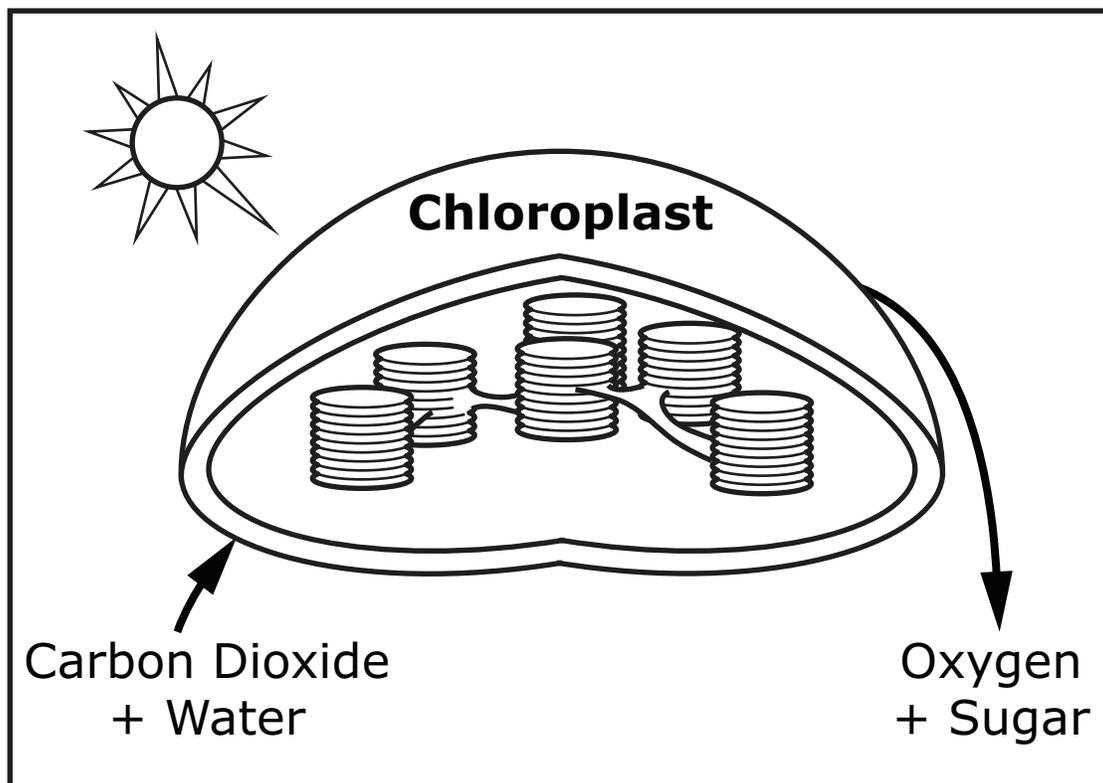
Most plants have cells that use sunlight to make sugar.

In plant cells, photosynthesis builds sugar molecules.
Plants and animals use sugar for energy.

Point to the model.

[For all students, read "This is a model of photosynthesis. This is a chloroplast (point to Chloroplast). Chloroplasts are inside plant cells. Chloroplasts allow plant cells to use energy from sunlight to change water and carbon dioxide into oxygen and sugar (point to the sun, water, carbon dioxide, oxygen, and sugar)."]

Photosynthesis



What does photosynthesis allow plants to do with the energy from sunlight?

Point to and read each option to the student.

- A. reflect the energy
- B. store the energy
- C. remove the energy

Item Information

ETS Item Code: TAS01S0467	Content: Science
Item ID: 1259	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.3.3	AAT or UC: AAT
Standard Text: Compare and contrast photosynthesis and cellular respiration in terms of energy transformation.	
AAT or UC Text: Match photosynthesis to the storing of energy and respiration to the release of stored energy.	
Category: Flow of Matter and Energy	
Correct Answer: A,A,B	

This is about cellular processes.

Photosynthesis and cellular respiration are two types of cellular processes.

Use the information to identify these processes as photosynthesis or cellular respiration.

Point to and read each question to the student.

- | | | |
|--|-------------------|-------------------------|
| Which process produces sugar? | A. photosynthesis | B. cellular respiration |
| Which process occurs only in plants? | A. photosynthesis | B. cellular respiration |
| Which process occurs in both plants and animals? | A. photosynthesis | B. cellular respiration |

Item Information

ETS Item Code: TAS01S0468	Content: Science
Item ID: 1260	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.3.3	AAT or UC: AAT
Standard Text: Compare and contrast photosynthesis and cellular respiration in terms of energy transformation.	
AAT or UC Text: Match photosynthesis to the storing of energy and respiration to the release of stored energy.	
Category: Flow of Matter and Energy	
Correct Answer: A,A,B	

This is about cellular processes.

Photosynthesis and cellular respiration are two types of cellular processes.

Use the information to identify these processes as photosynthesis or cellular respiration.

Point to and read each question to the student.

- | | | |
|-------------------------------------|-------------------|-------------------------|
| Which process stores energy? | A. photosynthesis | B. cellular respiration |
| Which process requires chlorophyll? | A. photosynthesis | B. cellular respiration |
| Which process releases energy? | A. photosynthesis | B. cellular respiration |

Item Information

ETS Item Code: TAS01S0469	Content: Science
Item ID: 1269	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.4.4	AAT or UC: UC
Standard Text: Determine the probability of a particular trait in an offspring based on the genotype of the parents and the particular mode of inheritance.	
AAT or UC Text: Identify the dominant trait in a given allele pair (i.e., trait shown in a gene pair represented by a capital letter).	
Category: Heredity	
Correct Answer: A	

This is about dominant alleles.

A plant has many alleles. One is for flower color. The flower color is represented by this pair of letters.

Ff

Which of these represents the dominant allele?

Point to and read each option to the student.

- A. the capital letter F
- B. the lowercase letter f

Item Information

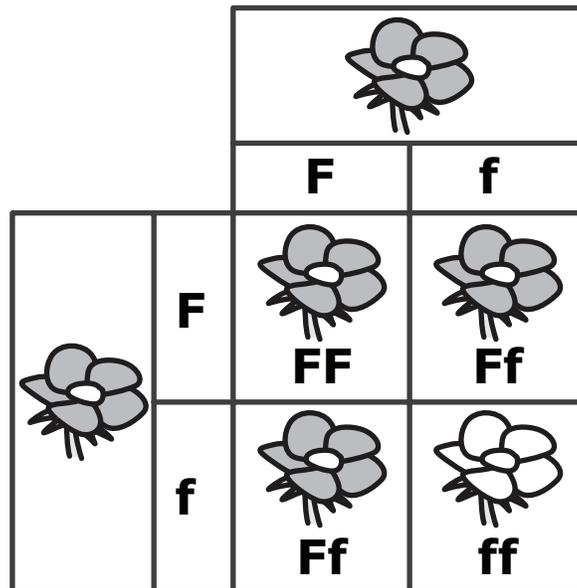
ETS Item Code: TAS01S0470	Content: Science
Item ID: 1270	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.4.4	AAT or UC: AAT
Standard Text: Determine the probability of a particular trait in an offspring based on the genotype of the parents and the particular mode of inheritance.	
AAT or UC Text: Identify the probability (i.e., two out of four) of a particular trait in an offspring based on the interpretation of a Punnett square.	
Category: Heredity	
Correct Answer: C	

This is about inheriting traits.

Plants and animals have traits that are represented by a pair of letters called an allele pair. Traits can be dominant or recessive. An example of a trait is the color of a plant's flowers.

Point to the diagram.

[For all students, read "This is a diagram of a Punnett square. One parent plant is at the top (point to the parent plant at the top). One parent plant is on the left (point to the parent plant on the left). The other four plants are offspring (point to the offspring plants). The parents each have one capital 'F' allele and one lowercase 'f' allele (point to the 'Ff' label for each parent). Both parents have purple flowers. Offspring plants with 'FF' and offspring plants with 'Ff' have purple flowers. Offspring plants with 'ff' have white flowers."]



What is the probability of the parent plants having an offspring with white flowers?

Point to and read each option to the student.

- A. 3 out of 4
- B. 2 out of 4
- C. 1 out of 4

Item Information

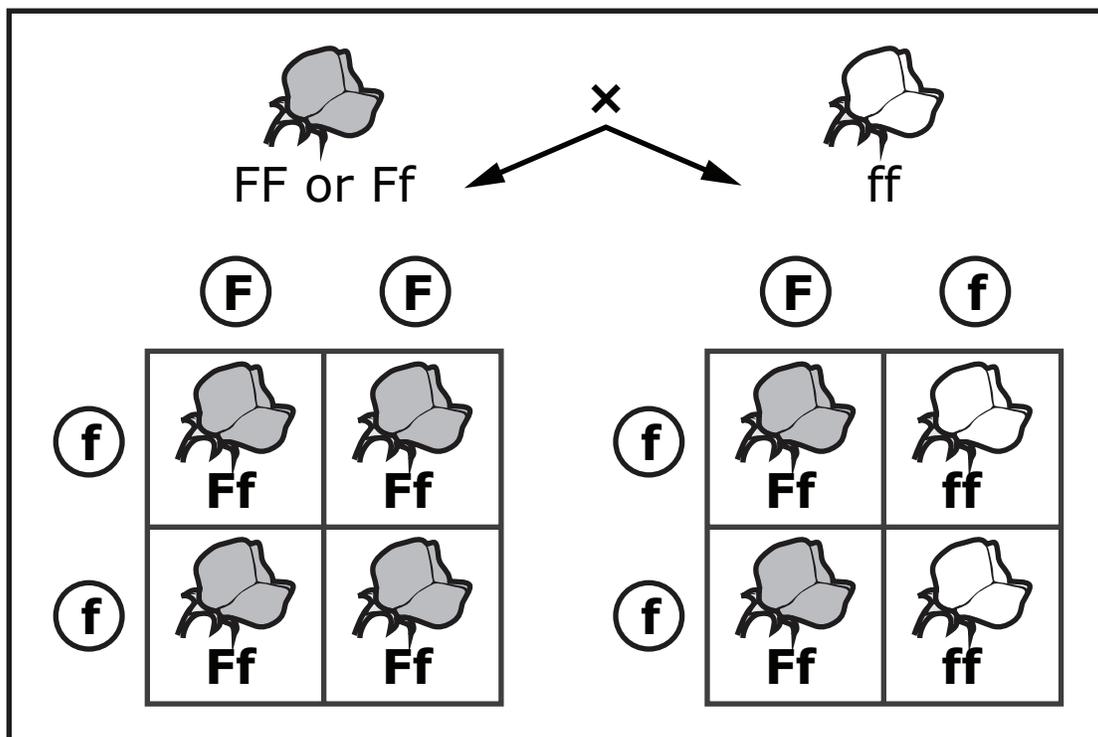
ETS Item Code: TAS01S0471	Content: Science
Item ID: 1271	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.4.4	AAT or UC: AAT
Standard Text: Determine the probability of a particular trait in an offspring based on the genotype of the parents and the particular mode of inheritance.	
AAT or UC Text: Identify the probability (i.e., two out of four) of a particular trait in an offspring based on the interpretation of a Punnett square.	
Category: Heredity	
Correct Answer: A,A,B	

This is about inheriting traits.

Plants and animals have traits that are represented by a pair of letters called an allele pair. Traits can be dominant or recessive. An example of a trait is the color of a plant's flowers.

Point to the diagram.

[For all students, read "This is a diagram of a scientist's experiment. The scientist wants to know whether a plant with purple flowers is carrying a recessive trait for white flowers (point to the purple plant at the top left). He plans to cross the purple plant that has an unknown allele pair with a plant that has white flowers (point to the plant at the top left and to the plant at the top right). The plant with white flowers has two lowercase 'f' alleles. The purple plant has an unknown allele pair that has either two capital 'F' alleles or one capital 'F' allele and one lowercase 'f' allele. The Punnett square on the left shows the results for crossing with two dominant alleles. All four flowers are purple flowers. The Punnett square on the right shows the results for crossing with one dominant allele and one recessive allele. Two of the flowers are purple and two of the flowers are white. (Point to the Punnett square on the left and point to the Punnett square on the right.)"]



Use the information in the diagram to answer these questions.

Point to and read each question to the student.

Is the allele pair of the purple plant most likely "FF" if all of the offspring are purple?

A. YES

B. NO

Is the purple plant carrying a recessive trait if only 2 out of 4 of the offspring are purple?

A. YES

B. NO

If two white plants are crossed, will 2 out of 4 of the offspring be purple?

A. YES

B. NO

Item Information

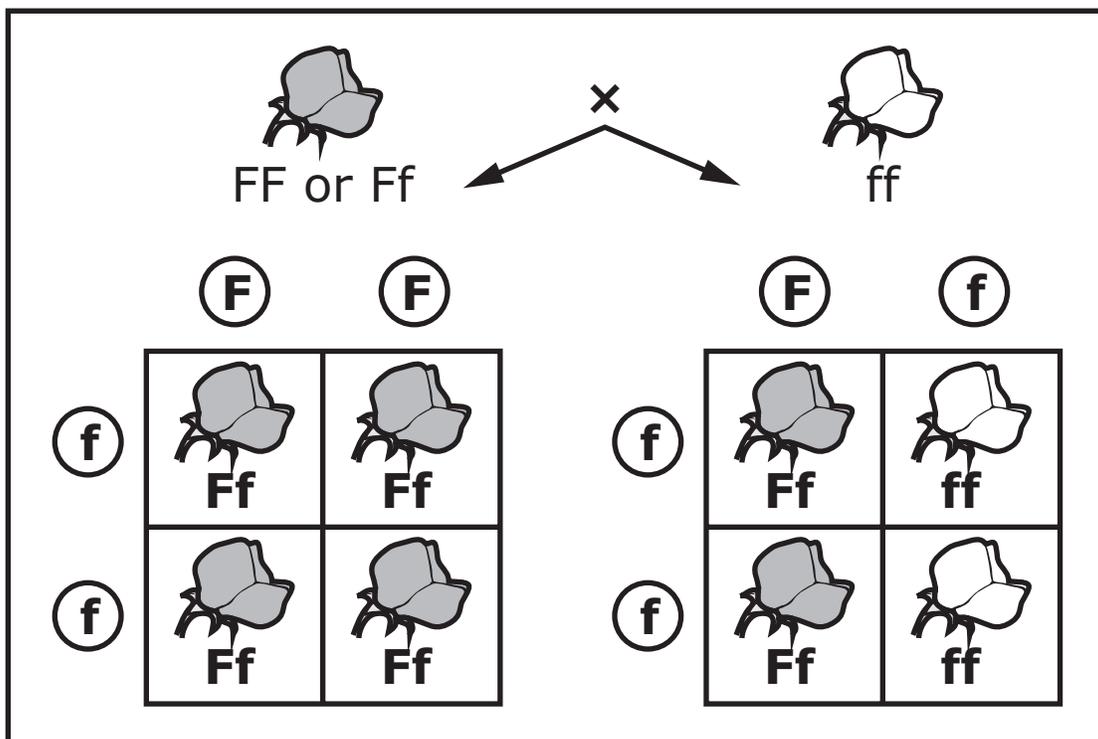
ETS Item Code: TAS01S0472	Content: Science
Item ID: 1272	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.4.4	AAT or UC: AAT
Standard Text: Determine the probability of a particular trait in an offspring based on the genotype of the parents and the particular mode of inheritance.	
AAT or UC Text: Identify the probability (i.e., two out of four) of a particular trait in an offspring based on the interpretation of a Punnett square.	
Category: Heredity	
Correct Answer: B,B,A	

This is about inheriting traits.

Plants and animals have traits that are represented by a pair of letters called an allele pair. Traits can be dominant or recessive. An example of a trait is the color of a plant's flowers.

Point to the diagram.

[For all students, read "This is a diagram of a scientist's experiment. The scientist wants to know whether a plant with purple flowers is carrying a recessive trait for white flowers (point to the purple plant at the top left). He plans to cross the purple plant that has an unknown allele pair with a plant that has white flowers (point to the plant at the top left and to the plant at the top right). The plant with white flowers has two lowercase 'f' alleles. The purple plant has an unknown allele pair that has either two capital 'F' alleles or one capital 'F' allele and one lowercase 'f' allele. The Punnett square on the left shows the results for crossing with two dominant alleles. All four flowers are purple flowers. The Punnett square on the right shows the results for crossing with one dominant allele and one recessive allele. Two of the flowers are purple and two of the flowers are white. (Point to the Punnett square on the left and point to the Punnett square on the right)."]



Use the information in the diagram to answer these questions.

Point to and read each question to the student.

Is the allele pair of the purple plant "FF" if only 2 out of 4 of the offspring are purple?

A. YES

B. NO

Is the purple plant most likely carrying the recessive trait if all of the offspring are purple?

A. YES

B. NO

If two white plants are crossed, will 4 out of 4 of the offspring be white?

A. YES

B. NO

Biology ALT Items

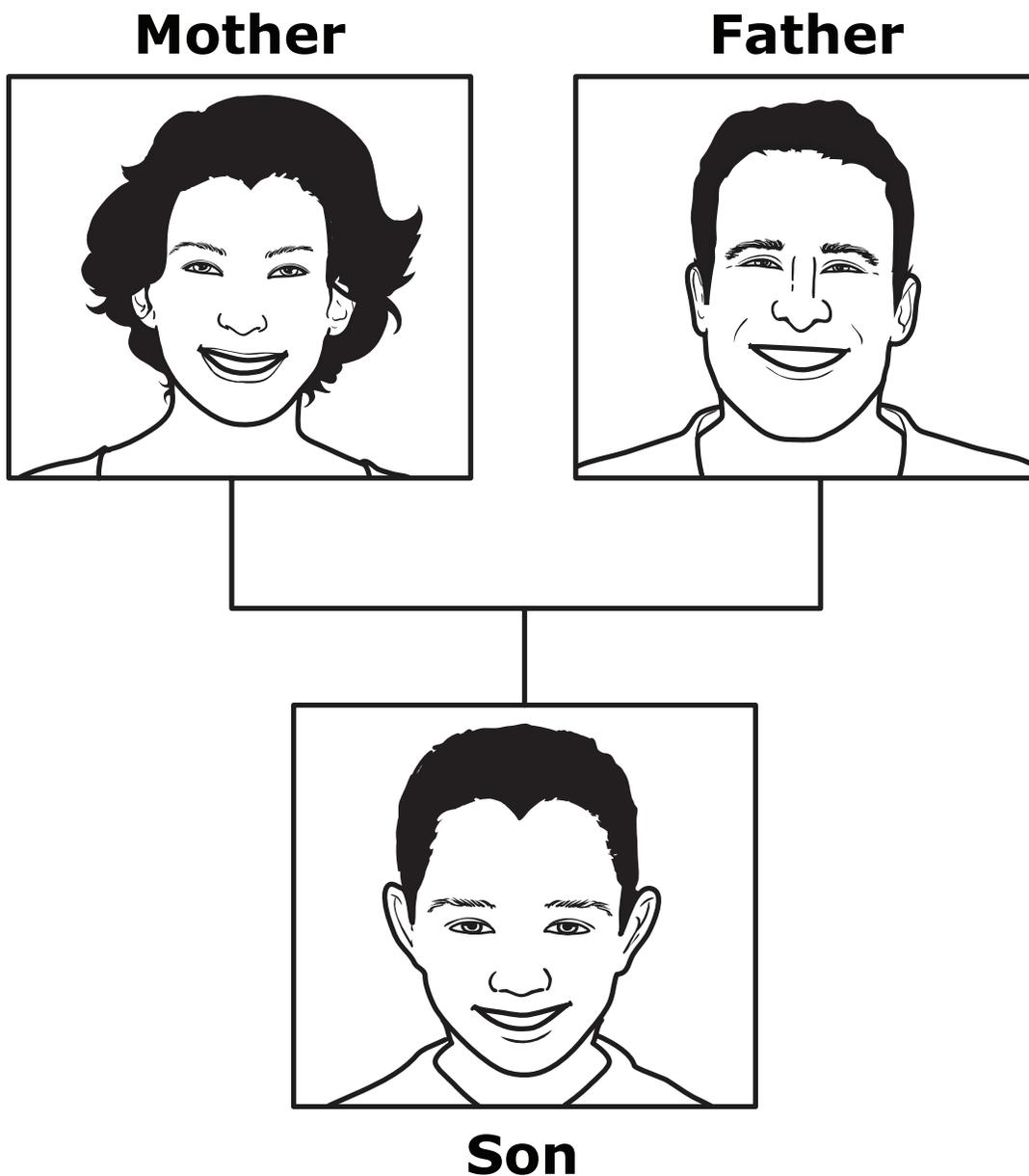
Item Information

ETS Item Code: TAS01S0473	Content: Science
Item ID: 1265	Grade: 10
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 3210.4.5	AAT or UC: UC
Standard Text: Apply pedigree data to interpret various modes of genetic inheritance.	
AAT or UC Text: Compare traits of parents and offspring.	
Category: Heredity	
Correct Answer: A	

This is about how parents pass traits to their children.
Children inherit all their traits from both parents.

Point to the diagram.

[For students with visual impairment, read "This is a diagram of a mother, a father, and their son. The mother has a widow's peak. The father has a straight hairline. Their son has a widow's peak. A widow's peak is a dominant trait. A straight hairline is a recessive trait."]



From which parent did the son inherit the dominant trait for hairline type?

Point to and read each option to the student.

- A. Mother
- B. Father

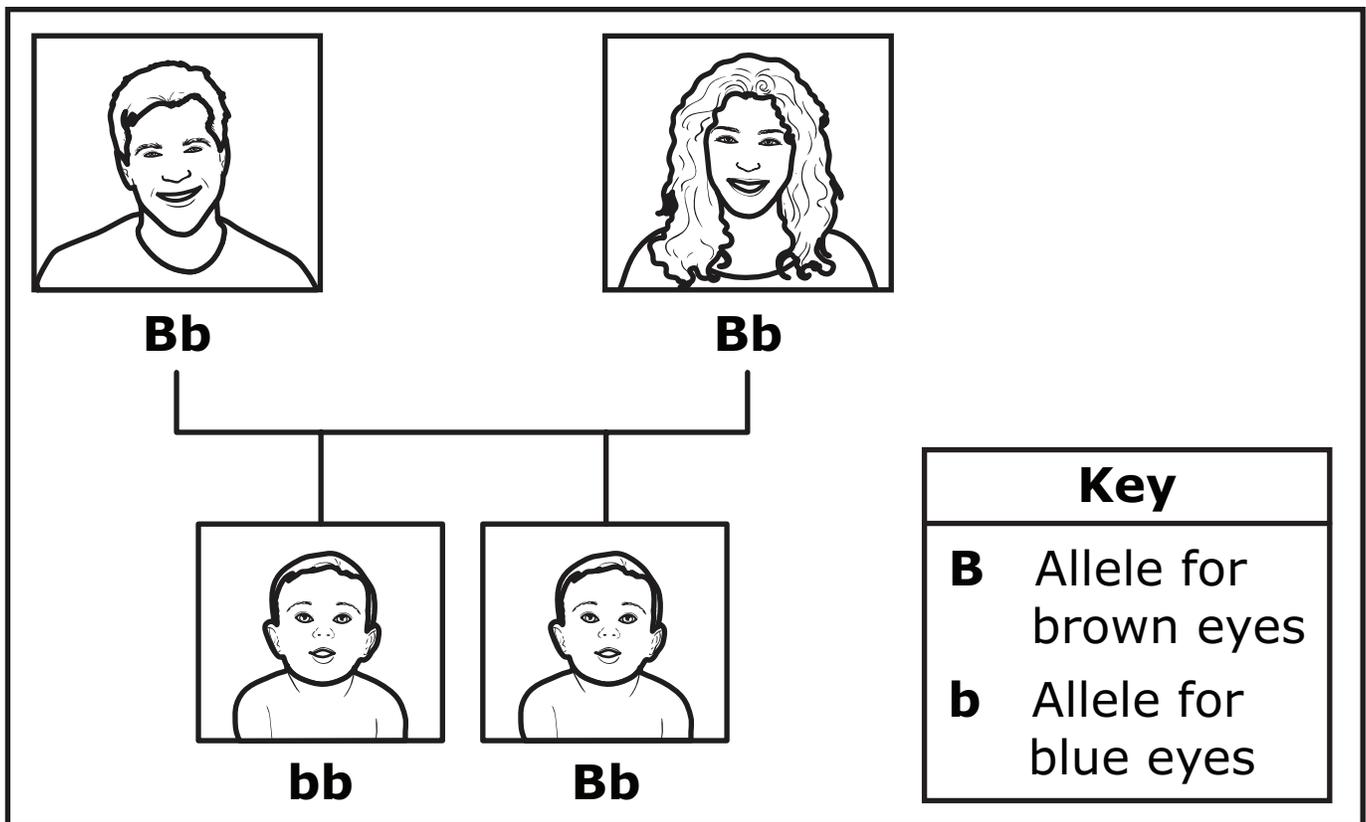
Item Information

ETS Item Code: TAS01S0474	Content: Science
Item ID: 1266	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.4.5	AAT or UC: AAT
Standard Text: Apply pedigree data to interpret various modes of genetic inheritance.	
AAT or UC Text: Identify a model showing how parents and offspring may have different traits.	
Category: Heredity	
Correct Answer: C	

This is about parents and offspring.

Point to the diagram.

[For all students, read "Offspring inherit traits from their parents. Each gene contains two alleles (point to the Key). The capital 'B' is the dominant allele for eye color (point to B = allele for brown eyes). The lowercase 'b' is the recessive allele for eye color (point to b = allele for blue eyes). Each parent shown has a capital 'B' and a lowercase 'b' allele (point to the Bb below each parent). The first child has two lowercase 'b' alleles (point to the bb below the first child). The second child has a capital 'B' and a lowercase 'b' allele (point to the Bb below the second child). Both parents have brown eyes. The first child has blue eyes. The second child has brown eyes."]



Which statement is supported by the diagram?

Point to and read each option to the student.

- A. Brown-eyed parents can only have a child with brown eyes.
- B. Brown-eyed parents can only have a child with blue eyes.
- C. Brown-eyed parents can have a child with brown or blue eyes.

Item Information

ETS Item Code: TAS01S0475	Content: Science
Item ID: 1267	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.4.5	AAT or UC: AAT
Standard Text: Apply pedigree data to interpret various modes of genetic inheritance.	
AAT or UC Text: Identify a model showing how parents and offspring may have different traits.	
Category: Heredity	
Correct Answer: A,B,A	

This is about parents and offspring.

Offspring inherit their traits from their parents. Traits are passed to offspring by genes. Certain cells contain two alleles for every gene. One allele is provided by each parent of an offspring.

Use the information to answer these questions.

Point to and read each question to the student.

Can parents and offspring have different visible traits?

A. YES

B. NO

Are all traits of both parents visible in their offspring?

A. YES

B. NO

Can a trait visible in both parents not be visible in offspring?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0476	Content: Science
Item ID: 1268	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.4.5	AAT or UC: AAT
Standard Text: Apply pedigree data to interpret various modes of genetic inheritance.	
AAT or UC Text: Identify a model showing how parents and offspring may have different traits.	
Category: Heredity	
Correct Answer: A,A,A	

This is about parents and offspring.

Offspring inherit their traits from their parents. Traits are passed to offspring by genes. Certain cells contain two alleles for every gene. One allele is provided by each parent of an offspring.

Use the information to answer these questions.

Point to and read each question to the student.

Can parents and offspring have the same visible trait? A. YES B. NO

Are traits sometimes not visible in an organism's appearance? A. YES B. NO

Can a trait that is not visible in one parent be visible in offspring? A. YES B. NO

Biology ALT Items

Item Information

ETS Item Code: TAS01S0569

Content: Science

Item ID: 2048

Grade: 10

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 3210.5.1

AAT or UC: UC

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Compare physical characteristics of animals advantageous for survival in their environments.

Category: Biodiversity and Change

Correct Answer: A

This is about how animals survive in their environment.

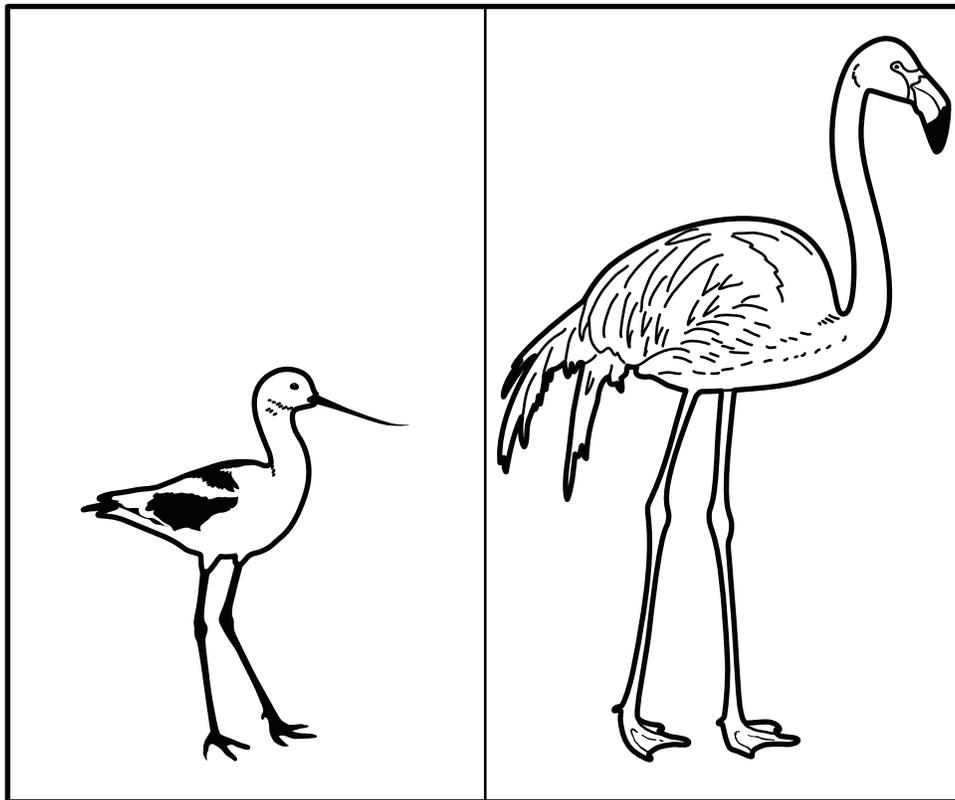
Birds have a variety of leg and feet sizes and shapes.

Point to the pictures.

[For all students, read "This is an avocet (point to the avocet). Avocets live near water in wetlands. This is a flamingo (point to the flamingo). Flamingos live near water in swamps."]

Avocet

Flamingo



Which characteristic helps the avocet and flamingo reach food in deeper waters?

Point to and read each option to the student.

- A. long legs
- B. small eyes

Item Information

ETS Item Code: TAS01S0570

Content: Science

Item ID: 2049

Grade: 10

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: B

This is about how organisms adapt to changes in their environment.

Adaptations help organisms survive in their environments.

Walking sticks are insects that look like small branches or trees.

How does blending in with its environment help a walking stick survive?

Point to and read each option to the student.

- A. A walking stick can find food more easily.
- B. A walking stick is better able to avoid predators.
- C. A walking stick can keep warm during cold winters.

Item Information

ETS Item Code: TAS01S0571

Content: Science

Item ID: 2050

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A,A,B

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Buffaloes live together in herds. Does living together in herds help animals defend themselves?

A. YES

B. NO

Brown bears hibernate during colder months. Does a brown bear's ability to hibernate help it survive the winter?

A. YES

B. NO

Deer are able to blend in with a forest environment. Does a deer's ability to be camouflaged in the trees make it easier to be found by predators?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0572

Content: Science

Item ID: 2051

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: B,A,A

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Some sheep store fat.

Does storing fat keep the sheep cool?

A. YES

B. NO

Certain spiders live underwater. These spiders blow air bubbles that store oxygen. Does the air bubble help the spider live?

A. YES

B. NO

A type of fish releases slime when grabbed by other animals. Does releasing slime make it harder for predators to catch the fish?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0573

Content: Science

Item ID: 2052

Grade: 10

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 3210.5.1

AAT or UC: UC

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Compare physical characteristics of animals advantageous for survival in their environments.

Category: Biodiversity and Change

Correct Answer: A

This is about how animals survive in their environment.

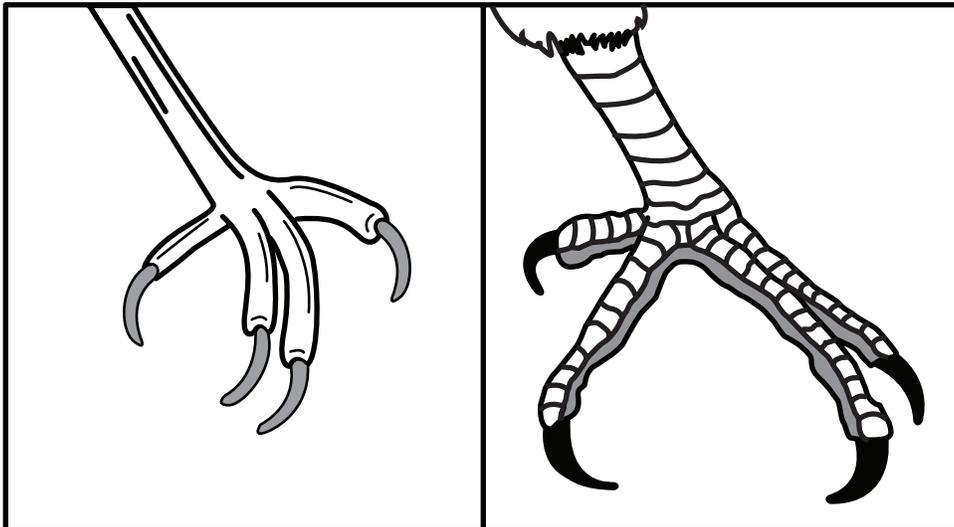
Birds have a variety of leg, feet, and bill shapes.

Point to the pictures.

[For all students, read "This is an illustration of songbird toes (point to the songbird toes). Songbirds have flexible toes, with one pointing backward. This is an illustration of woodpecker toes (point to the woodpecker toes). Woodpeckers have two toes pointing forward and two toes pointing backward."]

**Songbird
Toes**

**Woodpecker
Toes**



How do the feet of songbirds and woodpeckers help them survive?

Point to and read each option to the student.

- A. The feet help them hold on to branches and climb trees.
- B. The feet help them filter tiny plants and animals from water.

Item Information

ETS Item Code: TAS01S0574

Content: Science

Item ID: 2053

Grade: 10

DOK Level: 3

Item Type: SR

Level: 2

Points: 1

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

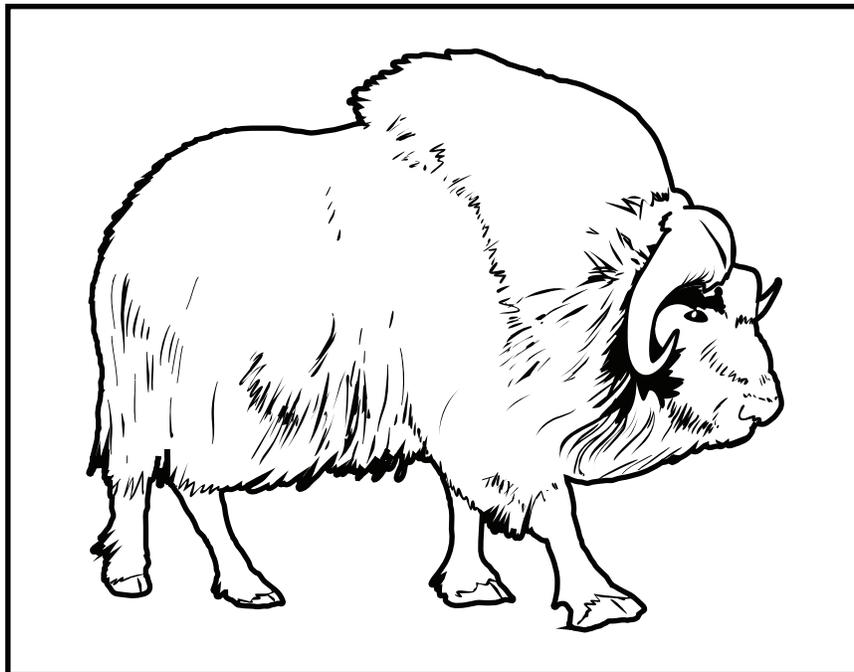
Correct Answer: C

This is about how organisms adapt to their environment.

Point to the picture.

[For students with visual impairment, read "This is a picture of a musk ox. The musk ox has thick, shaggy hair."]

Musk Ox



How does thick, shaggy hair help the musk ox survive in the tundra?

Point to and read each option to the student.

- A. Thick, shaggy hair helps the musk ox find food.
- B. Thick, shaggy hair helps the musk ox avoid predators.
- C. Thick, shaggy hair helps the musk ox keep warm during cold winters.

Item Information

ETS Item Code: TAS01S0575

Content: Science

Item ID: 2054

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: B,A,A

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Cobras can expand their necks to make themselves look bigger. Does making their necks bigger help cobras see in the dark?

A. YES

B. NO

Skunks hibernate during colder months. Does hibernating allow skunks to survive when food is scarce?

A. YES

B. NO

Wolves live in family groups called packs. Does hunting in a pack help the wolves get food?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0576

Content: Science

Item ID: 2055

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A,A,B

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Pufferfish gulp water to make their bodies bigger when in danger. Does the ability to become larger help the pufferfish avoid predators?

A. YES

B. NO

Many types of flowers have brightly colored petals. Does having brightly colored petals help attract pollinators?

A. YES

B. NO

Harmless scarlet king snakes have a similar color pattern to venomous coral snakes. Does resembling a venomous snake keep a harmless snake warm at night?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0481

Content: Science

Item ID: 1277

Grade: 10

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 3210.5.3

AAT or UC: UC

Standard Text: Recognize the relationships among environmental change, genetic variation, natural selection, and the emergence of a new species.

AAT or UC Text: Categorize plants or animals by similar traits.

Category: Biodiversity and Change

Correct Answer: A

This is about animals.

A squirrel is a small animal covered with fur. It has a bushy tail and a pointed nose.

Point to the picture of the squirrel.

[For all students, read "This is a squirrel. Here is the squirrel's tail and nose (point to the squirrel's tail and nose)."]



squirrel

Which animal has similar traits to a squirrel?

Point to and read each option to the student.

Point to the picture of the chipmunk.

[For students with visual impairment, read "This is a chipmunk. Here is the chipmunk's bushy tail and pointed nose (point to the chipmunk's tail and nose)."]

A.

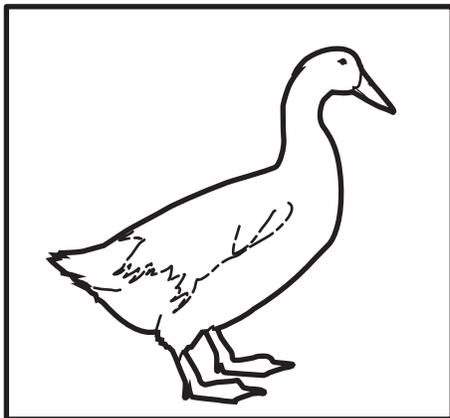


chipmunk

Point to the picture of the duck.

[For students with visual impairment, read "This is a duck. Here is the duck's small tail and flat nose (point to the duck's tail and nose)."]

B.



duck

Item Information

ETS Item Code: TAS01S0482	Content: Science
Item ID: 1278	Grade: 10
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 3210.5.3	AAT or UC: AAT
Standard Text: Recognize the relationships among environmental change, genetic variation, natural selection, and the emergence of a new species.	
AAT or UC Text: Identify how the traits of particular species that allow them to survive in their specific environments.	
Category: Biodiversity and Change	
Correct Answer: A	

This is about how traits help organisms survive.

Lodgepole pines are trees that live in forests in the United States.

Point to and read the data table to the student.

Lodgepole Pine Traits

- | |
|--|
| 1. Needs extreme heat to open pinecones |
| 2. Has needles instead of flat leaves |
| 3. Stops sending nutrients to branches that do not receive enough sunshine |

Which trait allows lodgepole pines to survive after a forest fire?

Point to and read each option to the student.

- A. Trait 1
- B. Trait 2
- C. Trait 3

Item Information

ETS Item Code: TAS01S0483	Content: Science
Item ID: 1279	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 3210.5.3	AAT or UC: AAT
Standard Text: Recognize the relationships among environmental change, genetic variation, natural selection, and the emergence of a new species.	
AAT or UC Text: Identify how the traits of particular species that allow them to survive in their specific environments.	
Category: Biodiversity and Change	
Correct Answer: A,A,B	

This is about how traits help organisms survive in their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Some desert animals have sand-colored fur. Does this fur color help desert animals survive the hot temperatures of the desert?

- A. YES B. NO

Camels have thick fur. Does this thick fur help them survive the direct sunlight in the desert by protecting their skin from the sun?

- A. YES B. NO

Some ants have a covering that reflects the desert sun. Does reflecting the desert sun help the ants survive at night?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0484	Content: Science
Item ID: 1280	Grade: 10
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 3210.5.3	AAT or UC: AAT
Standard Text: Recognize the relationships among environmental change, genetic variation, natural selection, and the emergence of a new species.	
AAT or UC Text: Identify how the traits of particular species that allow them to survive in their specific environments.	
Category: Biodiversity and Change	
Correct Answer: A,A,A	

This is about how traits help organisms survive in their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Some animals have light-colored fur. Does this trait help animals hide from predators in a snowy environment?

- A. YES B. NO

Some plants get water from dew and moisture in the air. Does this trait help plants survive in their habitat?

- A. YES B. NO

Some animals live in underground dens during a cold season. Does this trait help the animals survive the winter?

A. YES

B. NO

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Tennessee Comprehensive
Assessment Program TCAP
Biology
Alternative Assessment
Item Release
Spring 2018



Tennessee Comprehensive Assessment Program

TCAP

Grade 6 Science Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Grade 6 Science ALT Items

Item Information

ETS Item Code: TAS01S0237

Content: Science

Item ID: 1124

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.10.3

AAT or UC: UC

Standard Text: Recognize that energy can be transformed from one type to another.

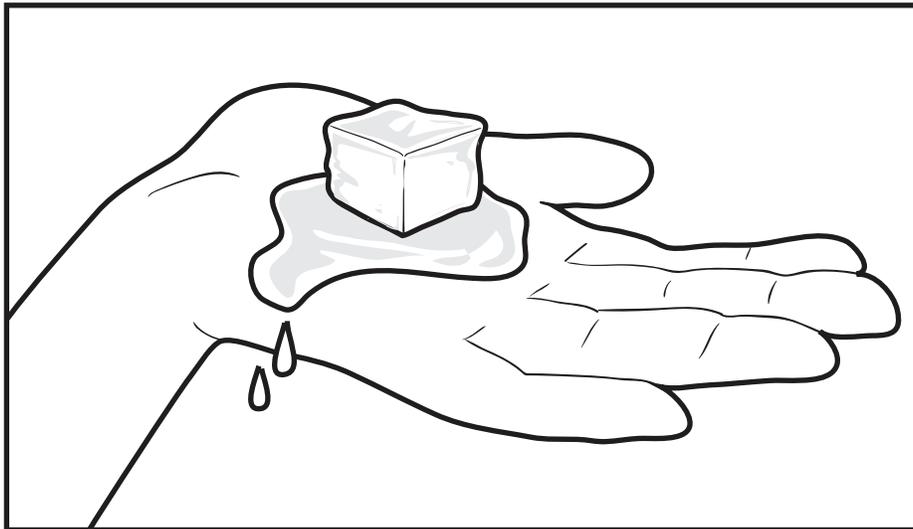
AAT or UC Text: Identify real-world applications where heat energy is transferred (e.g., A stove transfers heat to a pan).

Category: Energy, Forces in Nature

Correct Answer: B

This is about energy being transferred.

Heat is a form of energy. Heat energy moves from warmer objects to cooler ones.



Which of these describes the movement of heat energy in the diagram?

- A. Heat moves from the ice cube to the hand.
- B. Heat moves from the hand to the ice cube.

Item Information

ETS Item Code: TAS01S0238	Content: Science
Item ID: 1125	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: B	

This is about energy being transformed.

Energy can come in many different forms. Energy can change from one form to another.

Which of these is an example of energy being transformed?

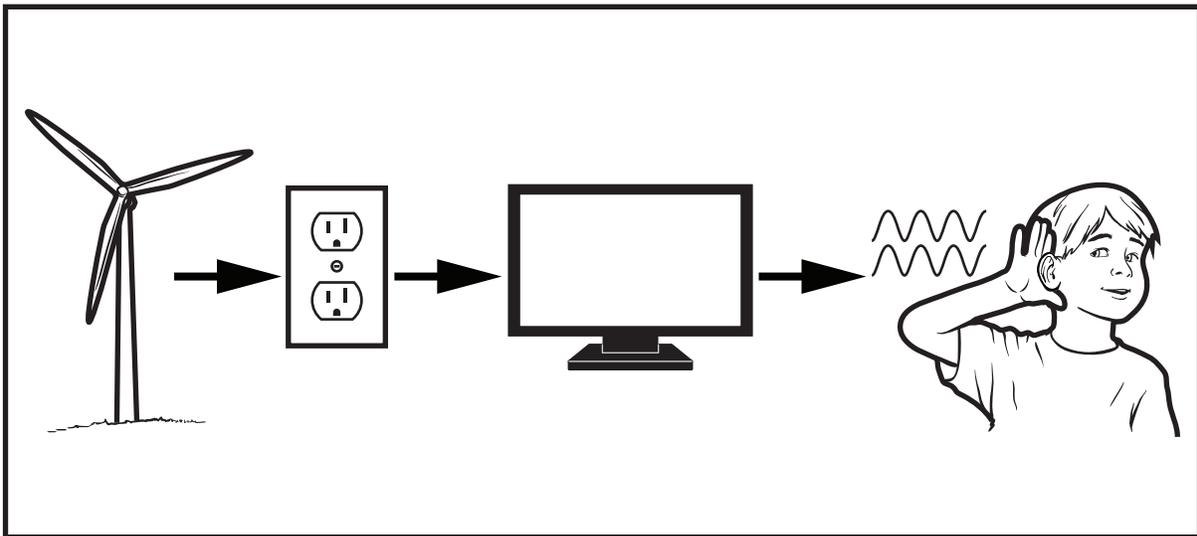
- A. A toaster is unplugged.
- B. A toaster turns electricity to heat energy.
- C. A piece of toast is removed from a toaster.

Item Information

ETS Item Code: TAS01S0239	Content: Science
Item ID: 1126	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: B,A,B	

This is about energy being transformed.

Energy can come in many different forms. Energy can change from one form to another.



Use the diagram to answer the questions.

Point to and read each question to the student.

Is the electrical outlet the original source of energy?

A. YES

B. NO

Does the TV transform electrical energy into sound energy?

A. YES

B. NO

Can the TV make light energy without electricity?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0240

Item ID: 1127

DOK Level: 4

Level: 3b

Standard Code: 0607.10.3

Standard Text: Recognize that energy can be transformed from one type to another.

AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).

Category: Energy, Forces in Nature

Correct Answer: A,B,A

Content: Science

Grade: 06

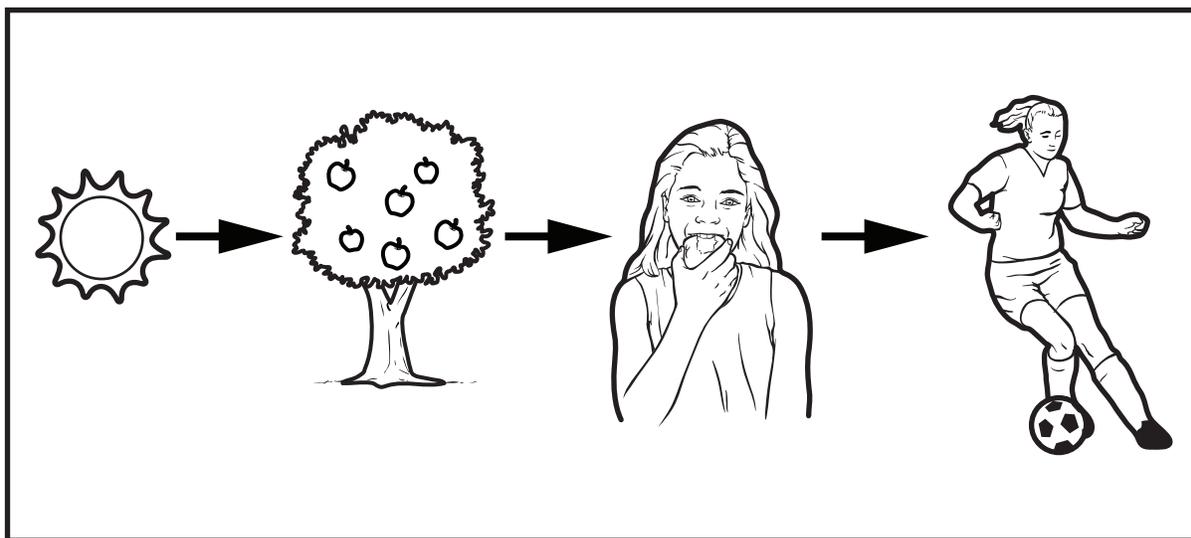
Item Type: MP

Points: 3

AAT or UC: AAT

This is about energy being transformed.

Energy can come in many different forms. Energy can change from one form to another.



Use the diagram to answer the questions.

Is the sun the original source of energy?

A. YES

B. NO

Does the girl get energy directly from the sun?

A. YES

B. NO

Can the girl get more energy by eating more food?

A. YES

B. NO

Grade 6 Science ALT Directions for Test Administration (Teacher Book)

Item Information

ETS Item Code: TAS01S0237

Content: Science

Item ID: 1124

Grade: 06

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0607.10.3

AAT or UC: UC

Standard Text: Recognize that energy can be transformed from one type to another.

AAT or UC Text: Identify real-world applications where heat energy is transferred (e.g., A stove transfers heat to a pan).

Category: Energy, Forces in Nature

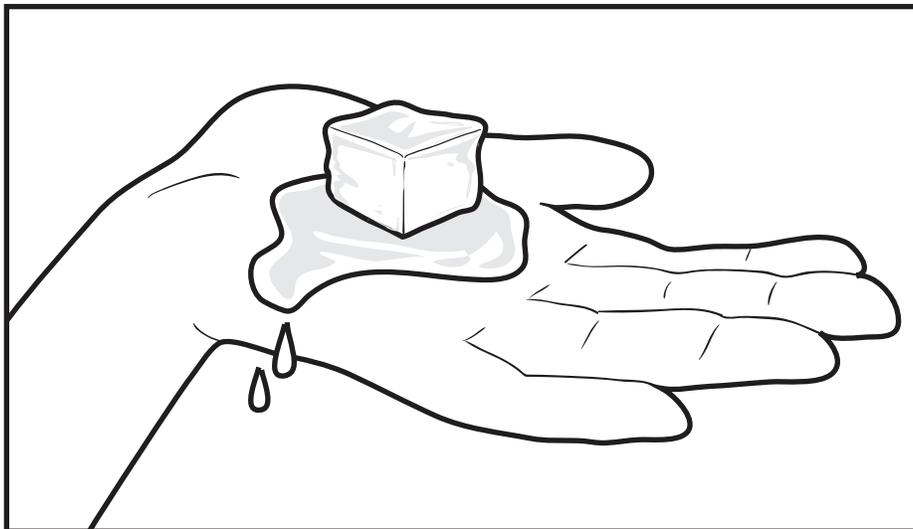
Correct Answer: B

This is about energy being transferred.

Heat is a form of energy. Heat energy moves from warmer objects to cooler ones.

Point to the diagram.

[For students with visual impairment, read "An ice cube has been placed in the middle of a student's hand. The ice cube is melting, and water is dripping off the side of the student's hand."]



Which of these describes the movement of heat energy in the diagram?

Point to and read each option to the student.

- A. Heat moves from the ice cube to the hand.
- B. Heat moves from the hand to the ice cube.

Item Information

ETS Item Code: TAS01S0238	Content: Science
Item ID: 1125	Grade: 06
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: B	

This is about energy being transformed.

Energy can come in many different forms. Energy can change from one form to another.

Which of these is an example of energy being transformed?

Point to and read each option to the student.

- A. A toaster is unplugged.
- B. A toaster turns electricity to heat energy.
- C. A piece of toast is removed from a toaster.

Item Information

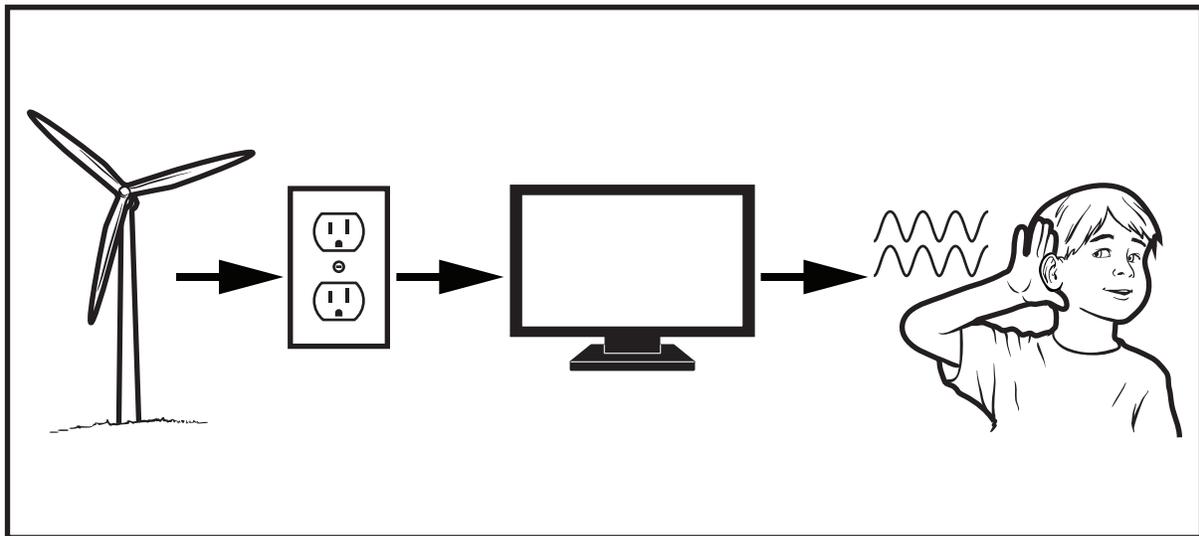
ETS Item Code: TAS01S0239	Content: Science
Item ID: 1126	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: B,A,B	

This is about energy being transformed.

Energy can come in many different forms. Energy can change from one form to another.

Point to the diagram.

[For all students, read "This is a diagram showing how energy changes from one form to another. (Point to the windmill.) This is a windmill that collects wind energy. The wind energy is then turned into electricity (point to the outlet). Electricity powers many things we use every day, like a TV (point to the TV). The student hears the sound of the TV and sees the light from the TV (point to the student)."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Is the electrical outlet the original source of energy?

A. YES

B. NO

Does the TV transform electrical energy into sound energy?

A. YES

B. NO

Can the TV make light energy without electricity?

A. YES

B. NO

Item Information

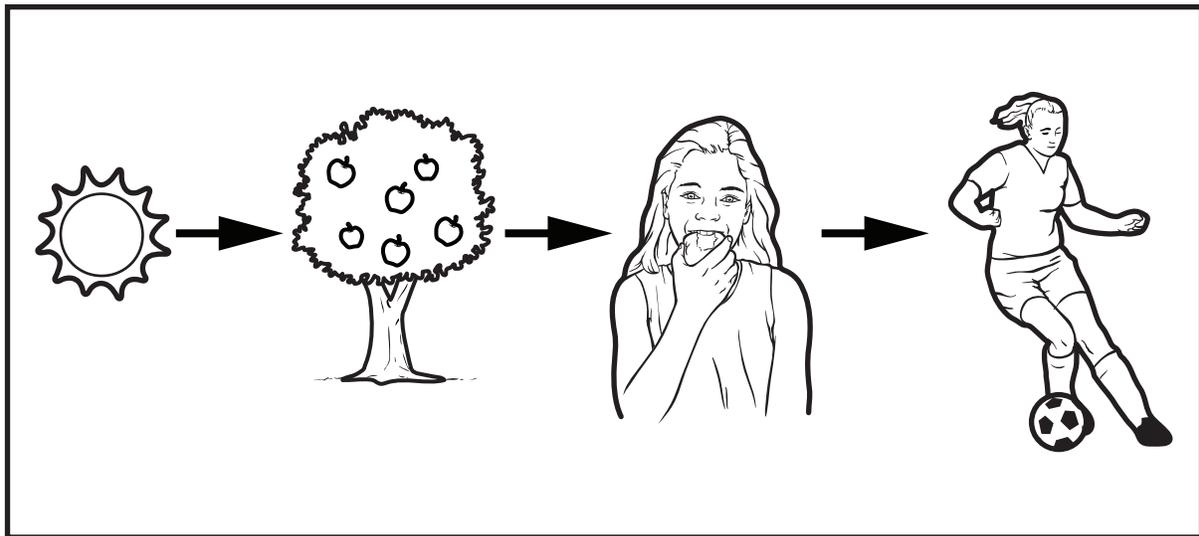
ETS Item Code: TAS01S0240	Content: Science
Item ID: 1127	Grade: 06
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0607.10.3	AAT or UC: AAT
Standard Text: Recognize that energy can be transformed from one type to another.	
AAT or UC Text: Identify real-world applications where energy is transformed (e.g., A television changes electrical energy into sound and light energy).	
Category: Energy, Forces in Nature	
Correct Answer: A,B,A	

This is about energy being transformed.

Energy can come in many different forms. Energy can change from one form to another.

Point to the diagram.

[For all students, read "This is a diagram showing how energy changes from one form to another. (Point to the sun.) The sun gives off light energy that is collected by the apple tree (point to the apple tree). The apple tree transforms the sun's light energy into chemical energy. When the girl eats the apple (point to the girl eating the apple), the chemical energy transforms into kinetic energy, which allows her to play soccer (point to the girl playing soccer)."]



Use the diagram to answer the questions.

Point to and read each question to the student.

Is the sun the original source of energy?

A. YES

B. NO

Does the girl get energy directly from the sun?

A. YES

B. NO

Can the girl get more energy by eating more food?

A. YES

B. NO

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Tennessee Comprehensive
Assessment Program TCAP
Grade 6 Science
Alternative Assessment
Item Release
Spring 2017



Tennessee Comprehensive Assessment Program

TCAP

Grade 7 Science Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Item Information

ETS Item Code: TAS01S0285	Content: Science
Item ID: 1169	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.1.3	AAT or UC: UC
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Recognize major organs of animals.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B	

This is about organs.

The digestive system breaks down food so the body can use it for energy.

The digestive system is made up of several organs. The mouth is an organ in the digestive system. Food enters the body through the mouth.

Which organ is also part of the digestive system?

- A. heart
- B. stomach

Item Information

ETS Item Code: TAS01S0286	Content: Science
Item ID: 1170	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A	

This is about organ systems.

Animals have a number of different organs. Muscles and tendons are organs that work together in a system to help an animal move.

Which organ system works with the muscles and the tendons to protect and support the weight of the body?

- A. skeletal
- B. digestive
- C. respiratory

Item Information

ETS Item Code: TAS01S0287	Content: Science
Item ID: 1171	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B,A,B	

This is about organ systems.

Animals have a number of different organs. Organs work together in a system. The lungs and the trachea are part of the respiratory system.

Does the respiratory system cause an animal to sweat?

A. YES

B. NO

Does the respiratory system allow an animal to breathe?

A. YES

B. NO

Does the respiratory system allow an animal to digest food?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0288	Content: Science
Item ID: 1172	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B,A,B	

This is about organ systems.

Animals have a number of different organs. Organs work together in a system. The heart and the blood vessels are part of the circulatory system.

Does the circulatory system digest food? A. YES B. NO

Does the circulatory system bring oxygen to muscles? A. YES B. NO

Does the circulatory system support the weight of an animal's body? A. YES B. NO

Grade 7 Science ALT Directions for Test Administration (Teacher Book)

Item Information

ETS Item Code: TAS01S0285	Content: Science
Item ID: 1169	Grade: 07
DOK Level: 2	Item Type: SR
Level: 1	Points: 1
Standard Code: 0707.1.3	AAT or UC: UC
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Recognize major organs of animals.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B	

This is about organs.

The digestive system breaks down food so the body can use it for energy.

The digestive system is made up of several organs. The mouth is an organ in the digestive system. Food enters the body through the mouth.

Which organ is also part of the digestive system?

Point to and read each option to the student.

- A. heart
- B. stomach

Item Information

ETS Item Code: TAS01S0286	Content: Science
Item ID: 1170	Grade: 07
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: A	

This is about organ systems.

Animals have a number of different organs. Muscles and tendons are organs that work together in a system to help an animal move.

Which organ system works with the muscles and the tendons to protect and support the weight of the body?

Point to and read each option to the student.

- A. skeletal
- B. digestive
- C. respiratory

Item Information

ETS Item Code: TAS01S0287	Content: Science
Item ID: 1171	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B,A,B	

This is about organ systems.

Animals have a number of different organs. Organs work together in a system. The lungs and the trachea are part of the respiratory system.

Point to and read each question to the student.

Does the respiratory system cause an animal to sweat?

A. YES

B. NO

Does the respiratory system allow an animal to breathe?

A. YES

B. NO

Does the respiratory system allow an animal to digest food?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0288	Content: Science
Item ID: 1172	Grade: 07
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0707.1.3	AAT or UC: AAT
Standard Text: Explain the basic functions of a major organ system.	
AAT or UC Text: Identify the basic functions of major organ systems.	
Category: Cells, Flow of Matter & Energy	
Correct Answer: B,A,B	

This is about organ systems.

Animals have a number of different organs. Organs work together in a system. The heart and the blood vessels are part of the circulatory system.

Point to and read each question to the student.

Does the circulatory system digest food? A. YES B. NO

Does the circulatory system bring oxygen to muscles? A. YES B. NO

Does the circulatory system support the weight of an animal's body? A. YES B. NO

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Tennessee Comprehensive
Assessment Program TCAP
Grade 7 Science
Alternative Assessment
Item Release
Spring 2017



Tennessee Comprehensive Assessment Program

TCAP

Grade 8 Science Alternative Assessment Item Release





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ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

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Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Grade 8 Science ALT Items

Item Information

ETS Item Code: TAS01S0389

Item ID: 1237

DOK Level: 2

Level: 1

Standard Code: 0807.5.5

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify fossils as a way for scientists to know about the types of organisms that lived long ago

Category: Biodiversity and Change

Correct Answer: A

Content: Science

Grade: 08

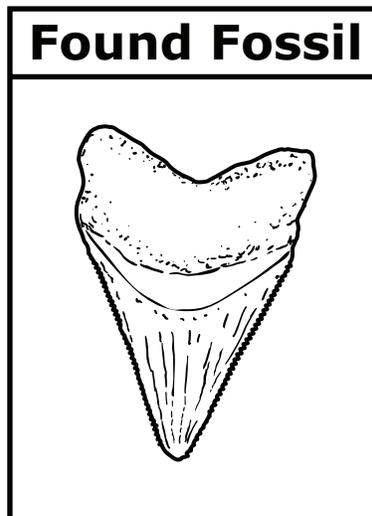
Item Type: SR

Points: 1

AAT or UC: UC

This is about animal fossils.

A scientist found this fossil.



What can the scientist learn from studying this fossil?

- A. information about ancient organisms
- B. how to predict weather patterns

Item Information

ETS Item Code: TAS01S0390

Item ID: 1238

DOK Level: 3

Level: 2

Standard Code: 0807.5.5

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.

Category: Biodiversity and Change

Correct Answer: C

Content: Science

Grade: 08

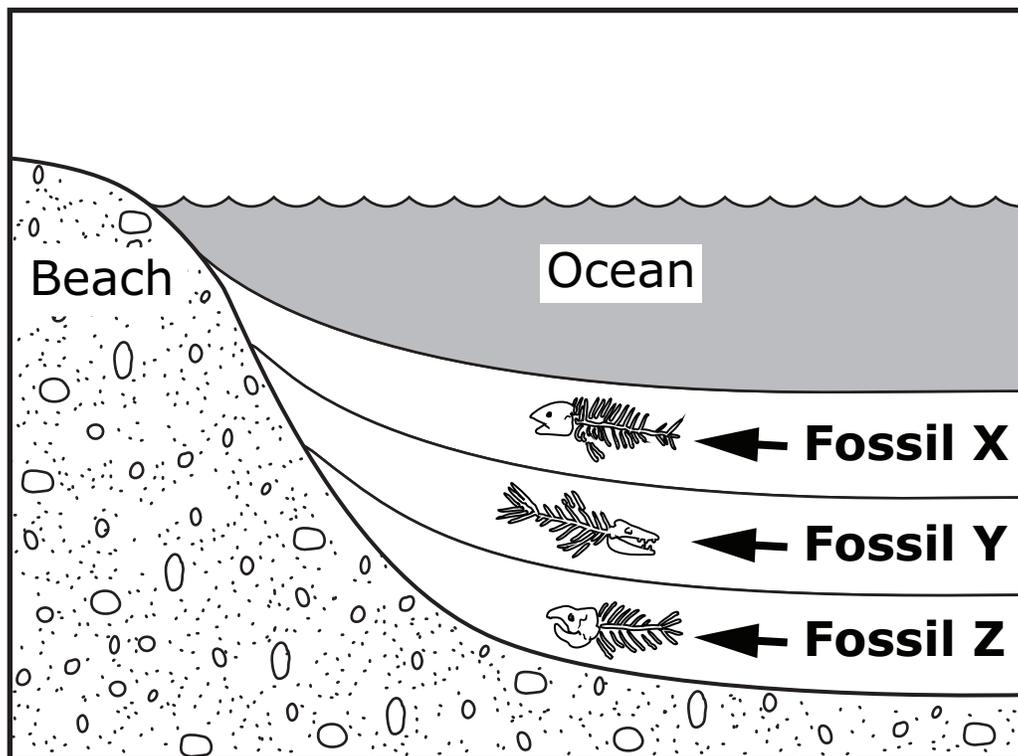
Item Type: SR

Points: 1

AAT or UC: AAT

This is about fossils.

Fossils are remains of ancient organisms. Fossils can include bones, teeth, or eggshells.



Which fossil is the oldest?

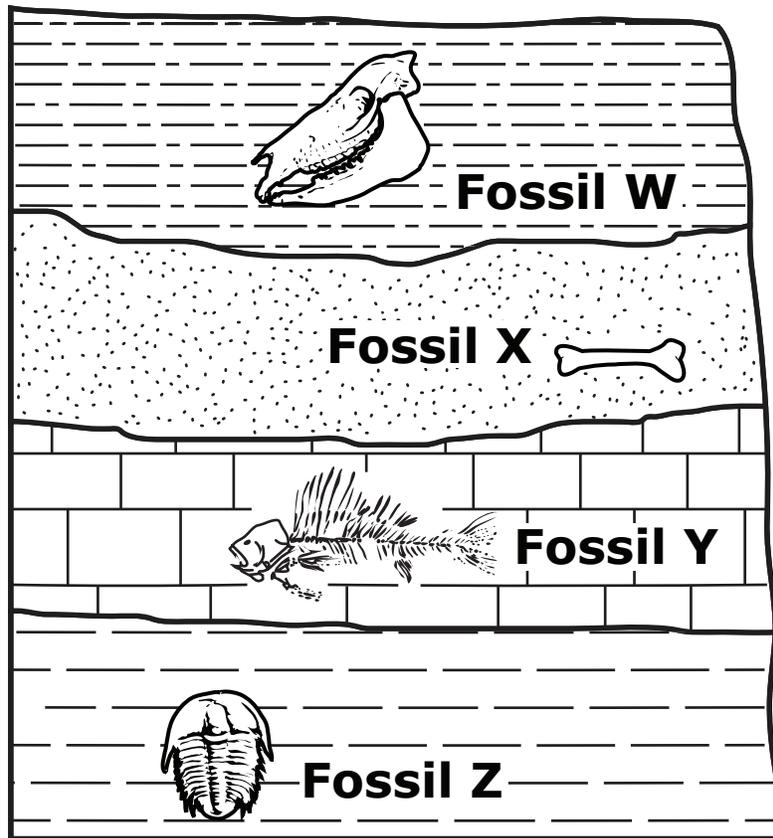
- A. Fossil X
- B. Fossil Y
- C. Fossil Z

Item Information

ETS Item Code: TAS01S0391	Content: Science
Item ID: 1239	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.5.5	AAT or UC: AAT
Standard Text: Compare fossils found in sedimentary rock to determine their relative age.	
AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.	
Category: Biodiversity and Change	
Correct Answer: B,A,A	

This is about fossils.

Fossils are remains of ancient organisms. Fossils can include bones, teeth, or leaves. Fossils can be found by digging beneath the surface of Earth.



Use the information in the diagram to answer the questions.

Is Fossil Y the oldest fossil shown in the diagram?

A. YES

B. NO

Is Fossil Z older than Fossil X?

A. YES

B. NO

Is Fossil Y older than Fossil W?

A. YES

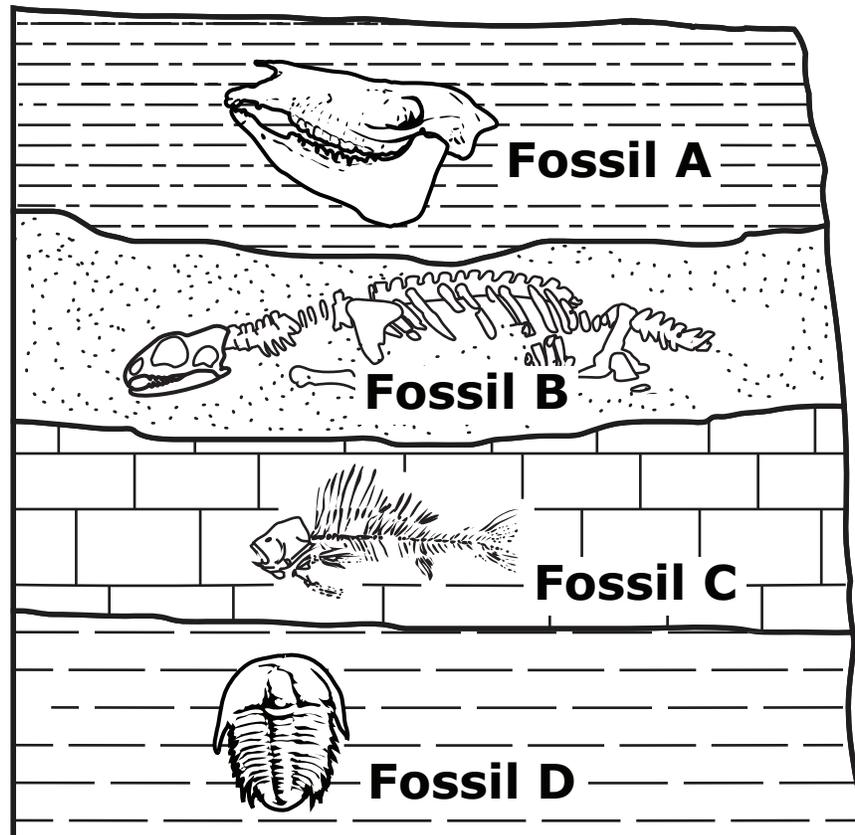
B. NO

Item Information

ETS Item Code: TAS01S0392	Content: Science
Item ID: 1240	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.5.5	AAT or UC: AAT
Standard Text: Compare fossils found in sedimentary rock to determine their relative age.	
AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.	
Category: Biodiversity and Change	
Correct Answer: A,B,A	

This is about fossils.

Fossils are remains of ancient organisms. Fossils can include bones, teeth, or leaves. Fossils can be found by digging beneath the surface of Earth.



Use the information in the diagram to answer the questions.

Is Fossil D the oldest fossil shown in the diagram?

A. YES

B. NO

Is Fossil B older than Fossil D?

A. YES

B. NO

Is Fossil A younger than
Fossil C?

A. YES

B. NO

Grade 8 Science ALT Directions for Test Administration (Teacher Book)

Item Information

ETS Item Code: TAS01S0389

Content: Science

Item ID: 1237

Grade: 08

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 0807.5.5

AAT or UC: UC

Standard Text: Compare fossils found in sedimentary rock to determine their relative age.

AAT or UC Text: Identify fossils as a way for scientists to know about the types of organisms that lived long ago

Category: Biodiversity and Change

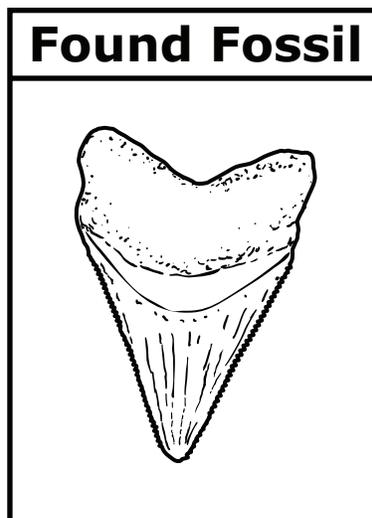
Correct Answer: A

This is about animal fossils.

A scientist found this fossil.

Point to the picture.

[For all students, read "This picture shows a fossil that looks like a shark's tooth."]



What can the scientist learn from studying this fossil?

Point to and read each option to the student.

- A. information about ancient organisms
- B. how to predict weather patterns

Item Information

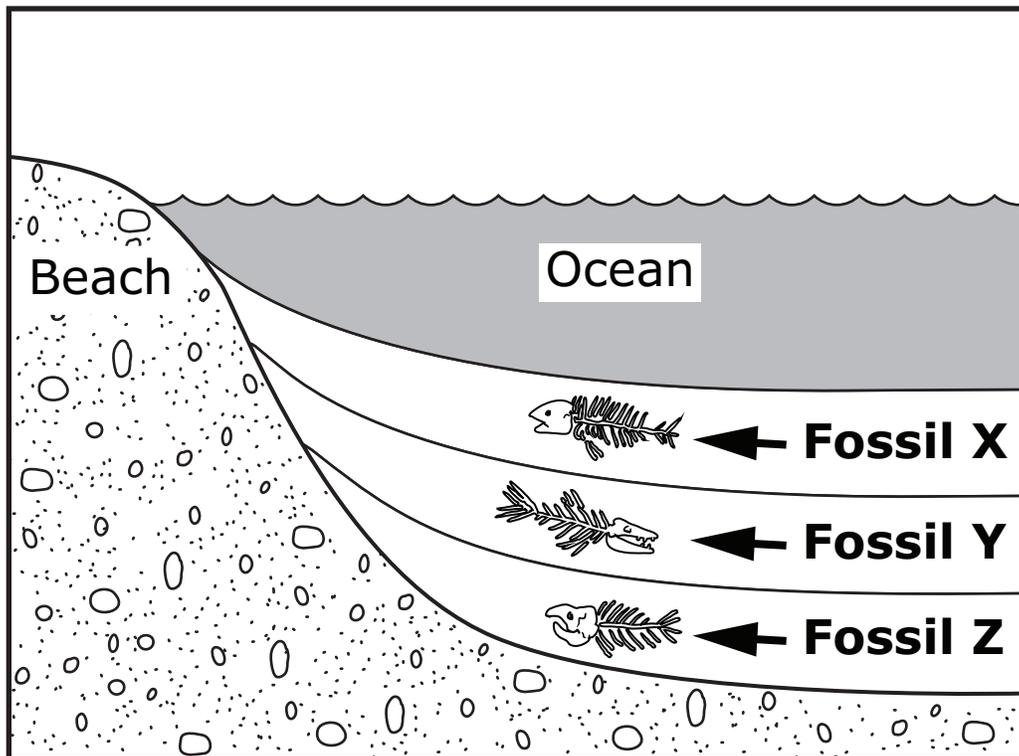
ETS Item Code: TAS01S0390	Content: Science
Item ID: 1238	Grade: 08
DOK Level: 3	Item Type: SR
Level: 2	Points: 1
Standard Code: 0807.5.5	AAT or UC: AAT
Standard Text: Compare fossils found in sedimentary rock to determine their relative age.	
AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.	
Category: Biodiversity and Change	
Correct Answer: C	

This is about fossils.

Fossils are remains of ancient organisms. Fossils can include bones, teeth, or eggshells.

Point to the diagram.

[For all students, read "This diagram shows fossils found under the ocean. This is Fossil X (point to Fossil X). It was found in the sand under the water. This is Fossil Y (point to Fossil Y). It was found in the rock layer below the sand. This is Fossil Z (point to Fossil Z). Fossil Z was found in the rock layer below Fossil Y."]



Which fossil is the oldest?

Point to and read each option to the student.

- A. Fossil X
- B. Fossil Y
- C. Fossil Z

Item Information

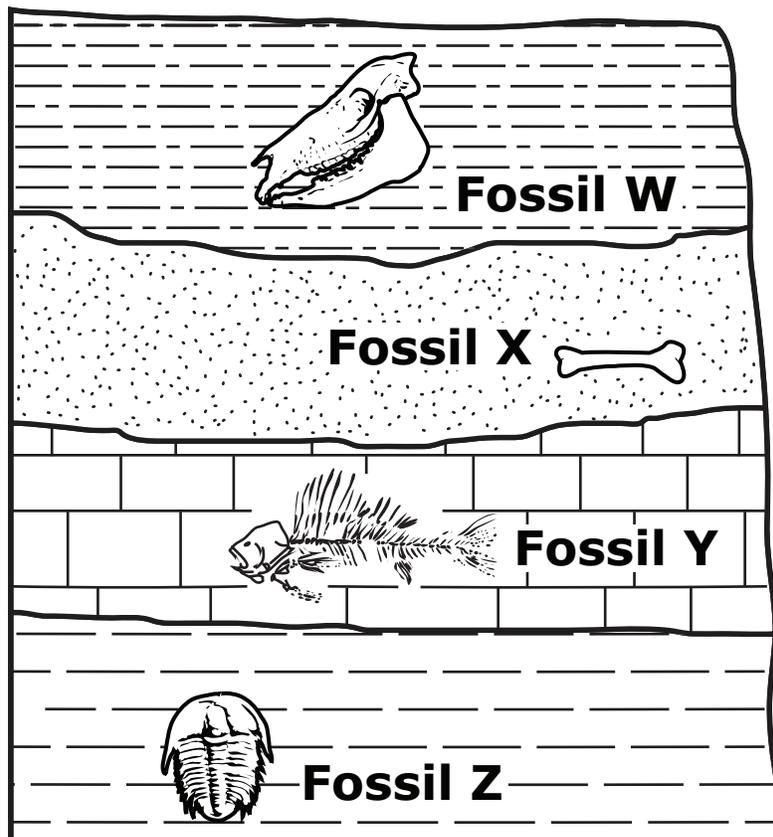
ETS Item Code: TAS01S0391	Content: Science
Item ID: 1239	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3a	Points: 3
Standard Code: 0807.5.5	AAT or UC: AAT
Standard Text: Compare fossils found in sedimentary rock to determine their relative age.	
AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.	
Category: Biodiversity and Change	
Correct Answer: B,A,A	

This is about fossils.

Fossils are remains of ancient organisms. Fossils can include bones, teeth, or leaves. Fossils can be found by digging beneath the surface of Earth.

Point to the fossil diagram.

[For all students, read "This is a fossil diagram. This is Fossil W (point to 'Fossil W'). Fossil W was found close to the surface. Fossil X (point to 'Fossil X') was found after digging several meters below Fossil W. Fossil Y (point to 'Fossil Y') was found after digging even farther down. Fossil Z (point to 'Fossil Z') was found below Fossil Y."]



Use the information in the diagram to answer the questions.

Point to and read each question to the student.

Is Fossil Y the oldest fossil shown in the diagram?

A. YES

B. NO

Is Fossil Z older than Fossil X?

A. YES

B. NO

Is Fossil Y older than Fossil W?

A. YES

B. NO

Item Information

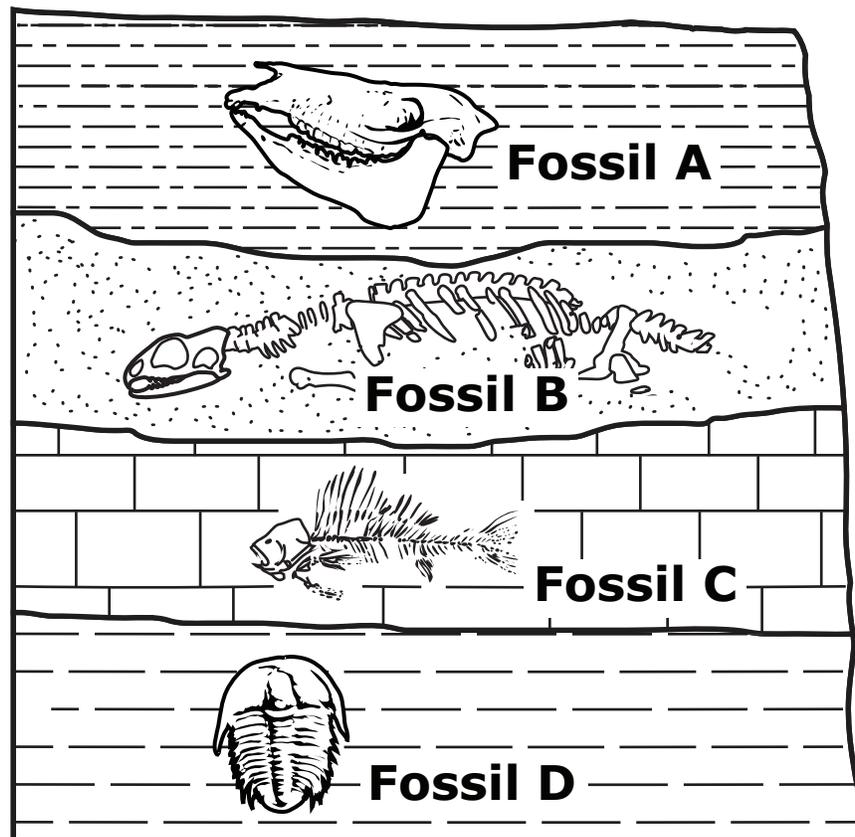
ETS Item Code: TAS01S0392	Content: Science
Item ID: 1240	Grade: 08
DOK Level: 4	Item Type: MP
Level: 3b	Points: 3
Standard Code: 0807.5.5	AAT or UC: AAT
Standard Text: Compare fossils found in sedimentary rock to determine their relative age.	
AAT or UC Text: Identify older fossils as being found in deeper, older rock layers.	
Category: Biodiversity and Change	
Correct Answer: A,B,A	

This is about fossils.

Fossils are remains of ancient organisms. Fossils can include bones, teeth, or leaves. Fossils can be found by digging beneath the surface of Earth.

Point to the fossil diagram.

[For all students, read "This is a fossil diagram. This is Fossil A (point to 'Fossil A'). Fossil A was found close to the surface. Fossil B (point to 'Fossil B') was found after digging several meters below Fossil A. Fossil C (point to 'Fossil C') was found after digging even farther down. Fossil D (point to 'Fossil D') was found below Fossil C."]



Use the information in the diagram to answer the questions.

Point to and read each question to the student.

Is Fossil D the oldest fossil shown in the diagram?

A. YES

B. NO

Is Fossil B older than Fossil D?

A. YES

B. NO

Is Fossil A younger than Fossil C?

A. YES

B. NO

Tennessee Comprehensive
Assessment Program TCAP
Grade 8 Science
Alternative Assessment
Item Release
Spring 2017



Tennessee Comprehensive Assessment Program

TCAP

Biology Alternative Assessment Item Release





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Metadata Interpretation Guide – ALT Science and Social Studies

ITEM INFORMATION

ETS Item Code:	TAS01S0477	Category:	Biodiversity and Change
Item ID:	1273	Correct Answer:	B
DOK Level:	2	Content:	Science
Level:	1	Grade:	10
Standard Code:	3210.5.1	Item Type:	SR
Standard Text:	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	Points:	1
AAT or UC Text:	Compare physical characteristics of animals advantageous for survival in their environments.	AAT or UC:	UC

METADATA DEFINITIONS

ETS Item Code: Unique letter/number code used to identify the item.	Category: Text of the Reporting Category the standard assesses.
Item ID: Unique number code the vendor uses to identify the item internally.	Correct Answer: Correct answer. For multi part items correct answers are listed in order, separated by a comma.
DOK Level: (if listed): Depth of Knowledge (cognitive complexity) is measured on the following scale: 2 = Memorize/Recall, 3 = Performance, 4 = Comprehension.	Content: Subject.
Level: Tier, on the following scale: 1 = SR item with two options, lower complexity; 2 = SR item with three options, moderate complexity; 3 = MP item includes 3 questions with two answer options each, higher complexity.	Grade: Grade level.
Standard Code: Primary educational standard assessed.	Item Type: SR for single response multiple choice item, MP for multiple part multiple choice items.
Standard Text: Text of the educational standard assessed.	Points: Maximum points possible for this item.
AAT or UC Text: Text of the Alternate Assessment Target or Underlying concept	AAT or UC: Alternate Assessment Target or Underlying Concept.

Biology ALT Items

Item Information

ETS Item Code: TAS01S0477

Item ID: 1273

DOK Level: 2

Level: 1

Standard Code: 3210.5.1

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Compare physical characteristics of animals advantageous for survival in their environments.

Category: Biodiversity and Change

Correct Answer: B

Content: Science

Grade: 10

Item Type: SR

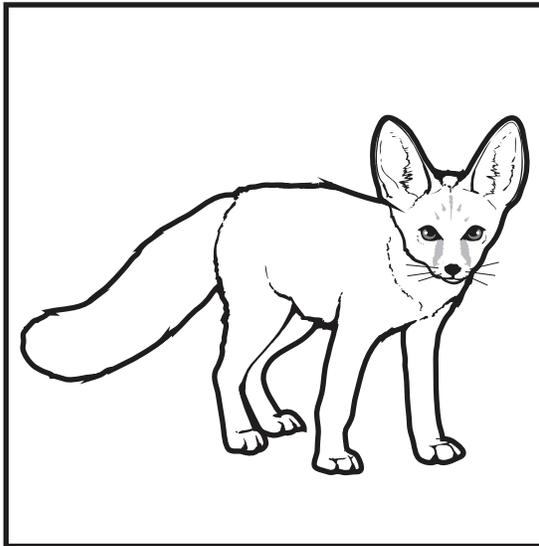
Points: 1

AAT or UC: UC

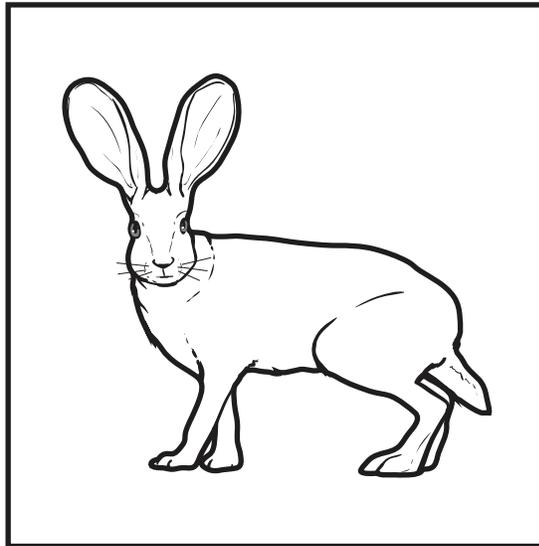
This is about how animals survive in their environment.

Jackrabbits and desert foxes are both found in the hot, dry desert. Both animals have large ears.

Desert Fox



Jackrabbit



How does having large ears help these animals survive in the desert?

- A. Large ears help the animals run fast.
- B. Large ears help the animals get rid of heat.

Item Information

ETS Item Code: TAS01S0478

Item ID: 1274

DOK Level: 3

Level: 2

Standard Code: 3210.5.1

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A

Content: Science

Grade: 10

Item Type: SR

Points: 1

AAT or UC: AAT

This is about how organisms adapt to changes in their environment.

Summer**Winter**

How does changing fur color help snowshoe hares survive?

- A. Changing fur color helps snowshoe hares blend in with the environment.
- B. Changing fur color helps snowshoe hares find grass to eat in the environment.
- C. Changing fur color helps snowshoe hares move faster in the environment.

Item Information

ETS Item Code: TAS01S0479

Content: Science

Item ID: 1275

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A,B,A

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Antarctic seals have fur and a thick layer of blubber. Do these adaptations help seals stay warm in a cold climate?

A. YES

B. NO

A male lion has a mane surrounding its face. Does this adaptation help the lion run fast?

A. YES

B. NO

Some types of monkeys make noises to warn each other about approaching predators. Does this adaptation help the monkeys avoid danger?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0480

Content: Science

Item ID: 1276

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A,A,B

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Chimpanzees use branches as tools to get honey from a bee colony. Does this adaptation help chimpanzees get food?

A. YES

B. NO

A desert cactus stores water in its stems and roots. Does this adaptation help the plant survive in the dry desert?

A. YES

B. NO

Ants leave scent trails to help other ants find food sources. Does this adaptation help ants avoid danger?

A. YES

B. NO

Biology ALT Directions for Test Administration (Teacher Book)

Item Information

ETS Item Code: TAS01S0477

Content: Science

Item ID: 1273

Grade: 10

DOK Level: 2

Item Type: SR

Level: 1

Points: 1

Standard Code: 3210.5.1

AAT or UC: UC

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Compare physical characteristics of animals advantageous for survival in their environments.

Category: Biodiversity and Change

Correct Answer: B

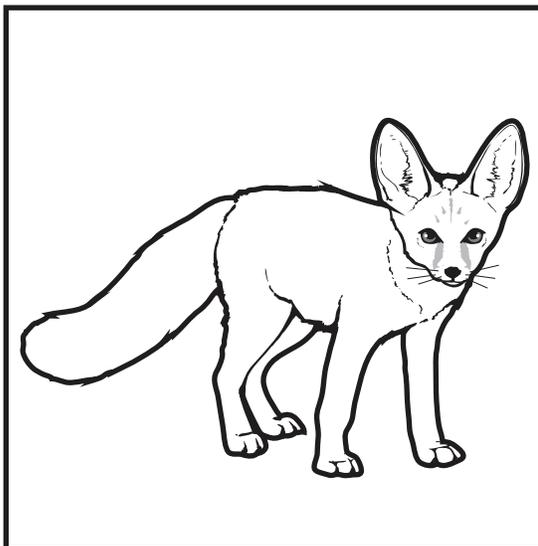
This is about how animals survive in their environment.

Jackrabbits and desert foxes are both found in the hot, dry desert. Both animals have large ears.

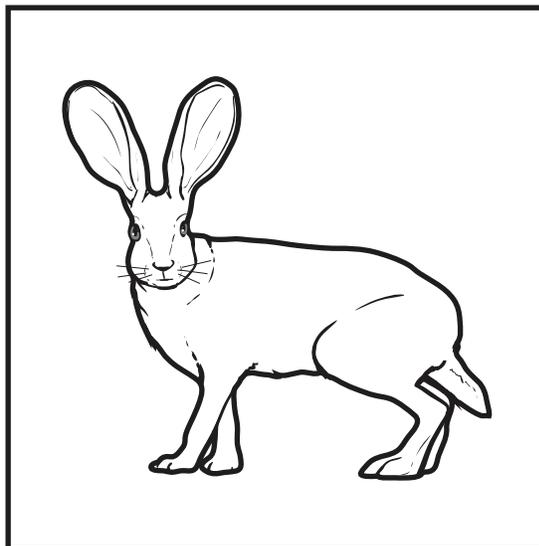
Point to the pictures.

[For all students, read "This is a desert fox. Here are its large ears (point to the desert fox's ears). This is a jackrabbit. Here are its large ears (point to the jackrabbit's ears)."]

Desert Fox



Jackrabbit



How does having large ears help these animals survive in the desert?

Point to and read each option to the student.

- A. Large ears help the animals run fast.
- B. Large ears help the animals get rid of heat.

Item Information

ETS Item Code: TAS01S0478

Item ID: 1274

DOK Level: 3

Level: 2

Standard Code: 3210.5.1

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A

Content: Science

Grade: 10

Item Type: SR

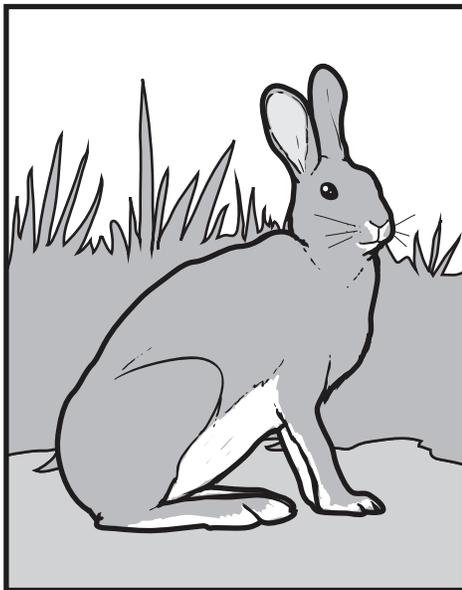
Points: 1

AAT or UC: AAT

This is about how organisms adapt to changes in their environment.

Point to the pictures.

[For all students, read "This is a snowshoe hare in the summer. It has dark-colored fur (point to the snowshoe hare in Summer). This is a snowshoe hare in the winter. It has light-colored fur (point to the snowshoe hare in Winter)."]

Summer**Winter**

How does changing fur color help snowshoe hares survive?

Point to and read each option to the student.

- A. Changing fur color helps snowshoe hares blend in with the environment.
- B. Changing fur color helps snowshoe hares find grass to eat in the environment.
- C. Changing fur color helps snowshoe hares move faster in the environment.

Item Information

ETS Item Code: TAS01S0479

Content: Science

Item ID: 1275

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3a

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A,B,A

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Antarctic seals have fur and a thick layer of blubber. Do these adaptations help seals stay warm in a cold climate?

A. YES

B. NO

A male lion has a mane surrounding its face. Does this adaptation help the lion run fast?

A. YES

B. NO

Some types of monkeys make noises to warn each other about approaching predators. Does this adaptation help the monkeys avoid danger?

A. YES

B. NO

Item Information

ETS Item Code: TAS01S0480

Content: Science

Item ID: 1276

Grade: 10

DOK Level: 4

Item Type: MP

Level: 3b

Points: 3

Standard Code: 3210.5.1

AAT or UC: AAT

Standard Text: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

AAT or UC Text: Identify how a plant or animal adapts to changes in their environments.

Category: Biodiversity and Change

Correct Answer: A,A,B

This is about how living organisms adapt to their environment.

Use this information to answer these questions.

Point to and read each question to the student.

Chimpanzees use branches as tools to get honey from a bee colony. Does this adaptation help chimpanzees get food?

A. YES

B. NO

A desert cactus stores water in its stems and roots. Does this adaptation help the plant survive in the dry desert?

A. YES

B. NO

Ants leave scent trails to help other ants find food sources. Does this adaptation help ants avoid danger?

A. YES

B. NO

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Tennessee Comprehensive
Assessment Program TCAP
Grades 6–8 Science,
Biology
Alternative Assessment
Item Release

