

# Test Booklet

Subject: SC, Grade: 05

TAKS Grade 5 Science 2006

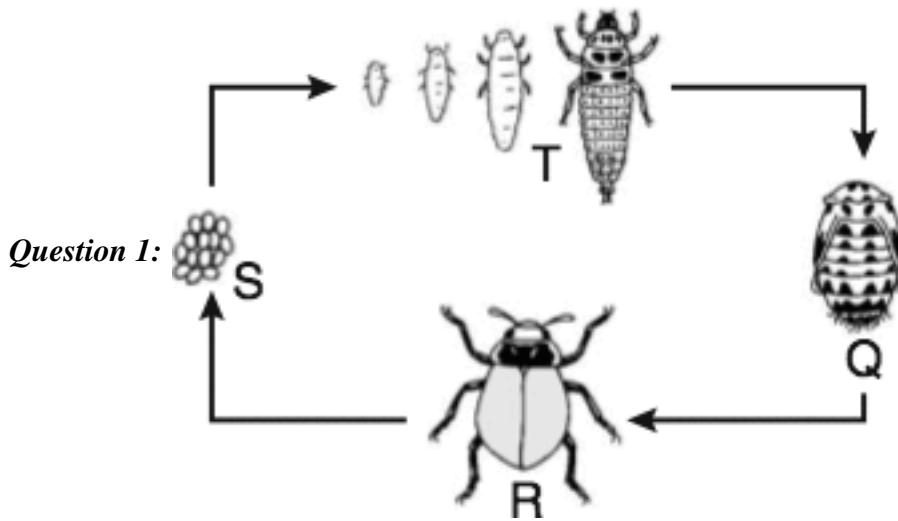
Student name: \_\_\_\_\_

Author: Texas

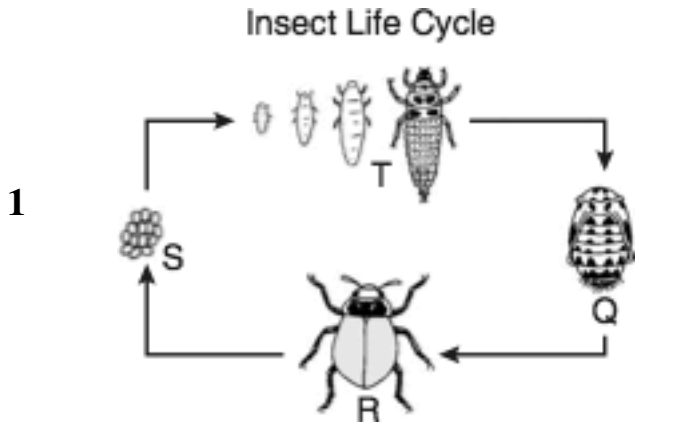
District: Texas Released Tests

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**Instructions for Test Administrator**



*Question 6:* Metamorphosis: a change in the shape or characteristics of an animal's body as it grows



Which part of this life cycle shows the adult organism?

- A Q
- B R
- C S
- D T

**2** What two forms of energy does a flame from a burning candle release?

- A Electrical and mechanical
- B Chemical and electrical
- C Light and heat
- D Heat and nuclear

**3**

Brand of Battery	Time (minutes)
L	350
M	460
N	410
O	380

The table indicates the amount of time that four different brands of batteries worked in a flashlight. Which of the following statements is supported by this information?

- A Brand L caused the light to shine farther than the other brands tested.
  - B Brand M lasted longer than the other brands tested.
  - C Brand N gave off a stronger light than the other brands tested.
  - D Brand O was more expensive than the other brands tested.
- 4** Which of the following characteristics of a field mouse is most likely inherited from its parents?
- A Brown fur
  - B Torn ear
  - C Scar on its leg
  - D Chipped tooth

### Science Activity

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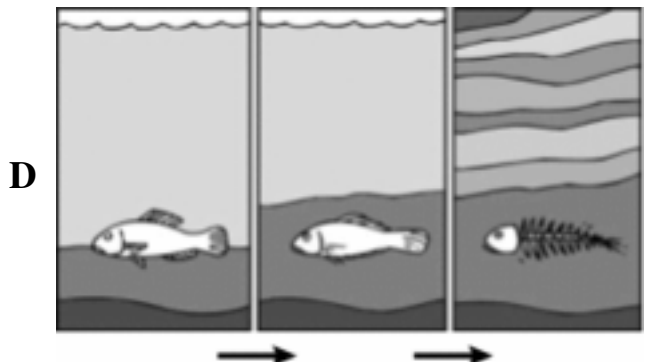
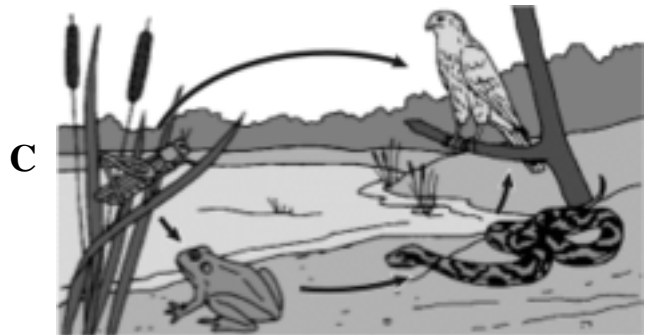
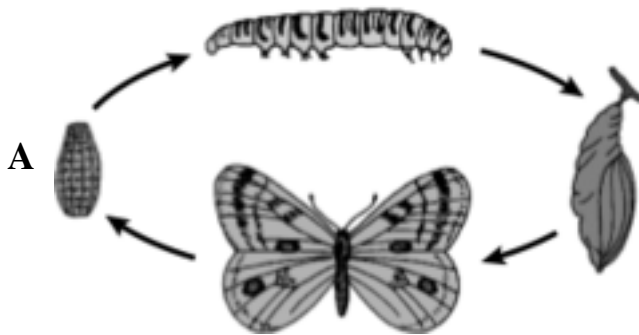
Students mixed a spoonful of vinegar with a small amount of baking soda in a bowl. They wrote a description of what they observed.

Which of these should the students avoid while doing this activity?

- A Using a metal teaspoon
- B Using a plastic bowl
- C Stirring the vinegar
- D Tasting the mixture

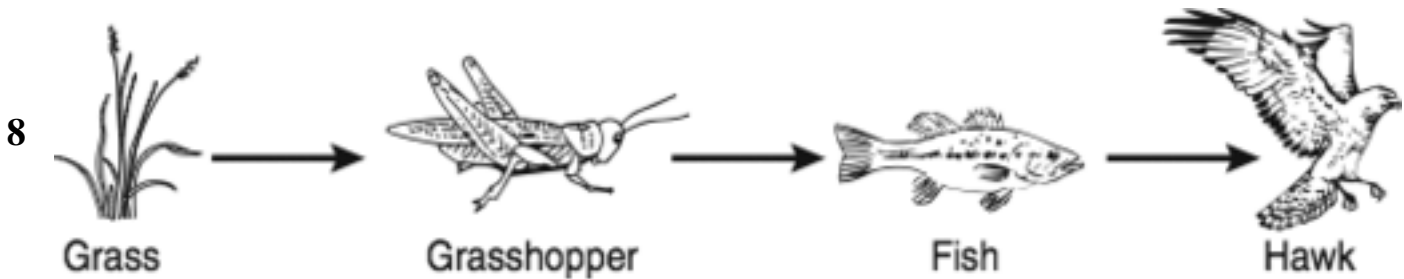
6 *Metamorphosis: a change in the shape or characteristics of an animal's body as it grows*

Which diagram shows an example of metamorphosis?



7 A company collects cans for recycling. Some cans are made of aluminum, and some are made of iron. Which of the following is the best way to separate the two types of cans?

- A Heat the iron cans until they melt
- B Use scissors to cut the cans
- C Use a magnet to pick up the iron cans
- D Float the cans in water



Which organism in this food chain is a producer?

- A Fish
- B Grass
- C Grasshopper
- D Hawk

9 Some students were studying properties of water. One student placed a cup containing 80 mL of water in a freezer. Another student placed an identical cup containing 40 mL of water in a different freezer. Which of the following will be the same for both cups of water?

- A The temperature at which the water freezes
- B The mass of the frozen water
- C The time it takes the water to freeze
- D The volume of the frozen water

10 A plant that was kept inside a house all winter was placed outside in full sunlight in the spring. The leaves of this plant soon died, and new leaves grew in their place. The new leaves were greener and thicker. Which hypothesis is best supported by this information?

- A Plants can learn to stay healthy.
- B Plants can adapt to some changes.
- C Plants can change leaves at any time.
- D Plants can produce weather changes.

### Characteristics of Four Habitats

Habitat	Climate	Surface Features	Main Plant Types	Plant Eater Found in Habitat
Q	Hot	Sand dunes	Cacti, grasses	Field mouse
R	Cool	Hills	Grains, thistles	Rabbit
S	Cool	Mountains	Trees, blueberry bushes	Beaver
T	Cold	Snowdrifts	Algae, mosses	Lemming

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### Black Bear Needs

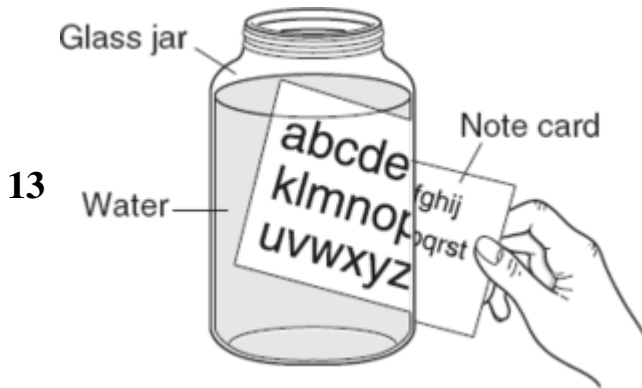
Habitat	Forests and woodlands
Food	Nuts, fruits, young sprouts, insects, young mammals, and livestock
Space	3 to 90 square kilometers

The top chart shows some characteristics of four habitats. In which habitat would a black bear most likely be found?

- A Q
- B R
- C S
- D T

12 Which of these is a renewable resource?

- A Tree
- B Coal
- C Oil
- D Wind



A student holds a note card behind a jar of water. Which of the following best explains why the part of the note card seen through the jar looks different from the rest of the note card?

- A The jar reflects light hitting its surface.
- B The water absorbs light hitting its surface.
- C The jar scatters light passing through it.
- D The water bends light passing through it.

Use the information below and your knowledge of science to help you answer questions 14—17.

### Catching Waves

Africa is home to a frog that catches insects in a very unusual way. This frog, called the African clawed frog, has moist skin and is found in murky ponds and other wet environments.

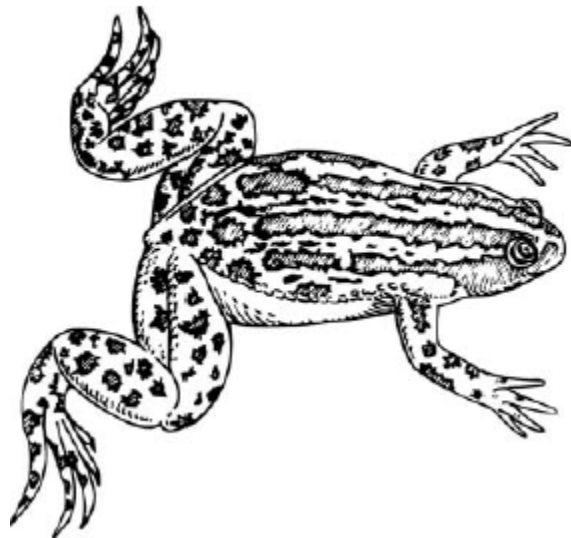
When the dry season starts, the frog burrows into the mud to remain moist. It stays in the burrow without eating or moving until rainfall returns. This may take up to a year.

This frog cannot see well in the water or in the dark. Still, it is very successful at catching insects.

When an insect lands on the surface of a pond, waves are sent across the water. The African clawed frog has many tiny detectors that sense where the waves are coming from. Many scientists believe that this frog can tell the size of the insect making the waves. And when two or more waves are made at the same time, it can tell exactly where each wave is coming from.

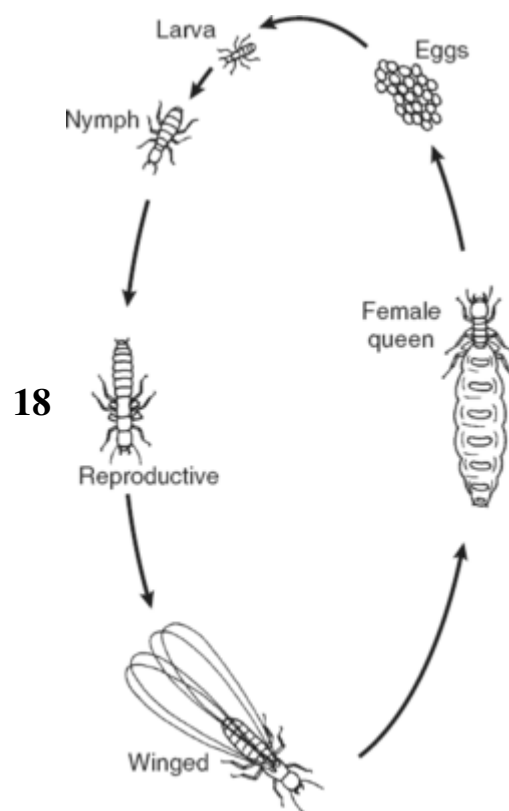
Was that a wave? Supper's ready!

African Clawed Frog





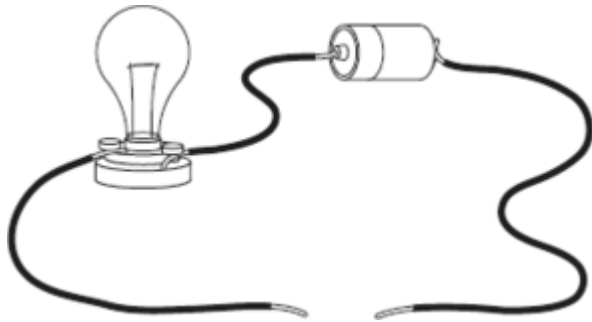
- 14** Students placed some frogs in a tank to study their behavior. What should the students do for safety reasons after feeding the frogs?
- A Wash the floor with soap and water
  - B Wash their hands with soap and water
  - C Rinse the frog tank with cool water
  - D Rinse the frogs with cool water
- 15** Which of the following is an inherited trait in African clawed frogs?
- A The location of wave detectors on the frogs
  - B The location of the frogs in a pond
  - C The number of insects eaten by the frogs in an hour
  - D The number of times the frogs look for insects in an hour
- 16** The African clawed frog has many adaptations that help it survive. Which of these adaptations helps it survive changes in its environment?
- A The ability to see color
  - B The ability to detect waves
  - C The ability to burrow
  - D The ability to eat
- 17** An insect that produces waves in the water also produces waves in the air. What can these air vibrations produce?
- A Sound
  - B Light
  - C Oxygen
  - D Carbon



This diagram shows some stages in the termite life cycle. Which of these is supported by the information in the diagram?

- A Some nymphs have wings.
- B Some larvae lay eggs.
- C Eggs develop into three kinds of larvae.
- D The queen produces the eggs.

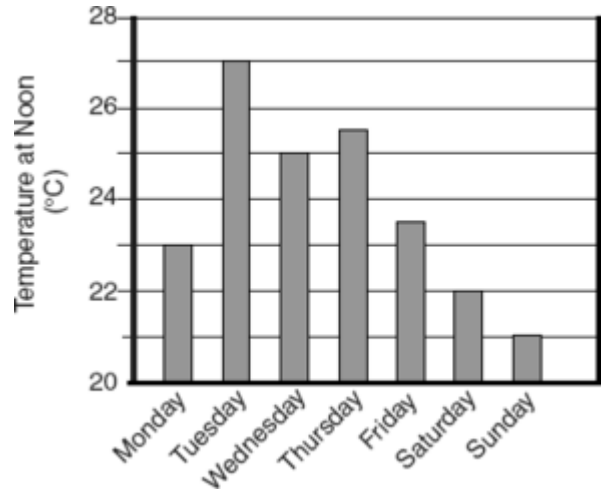
19



A student plans to make this lightbulb glow. All of the following objects can be used to complete the circuit **EXCEPT** —

- A a copper penny
- B a plastic comb
- C a metal clip
- D an iron nail

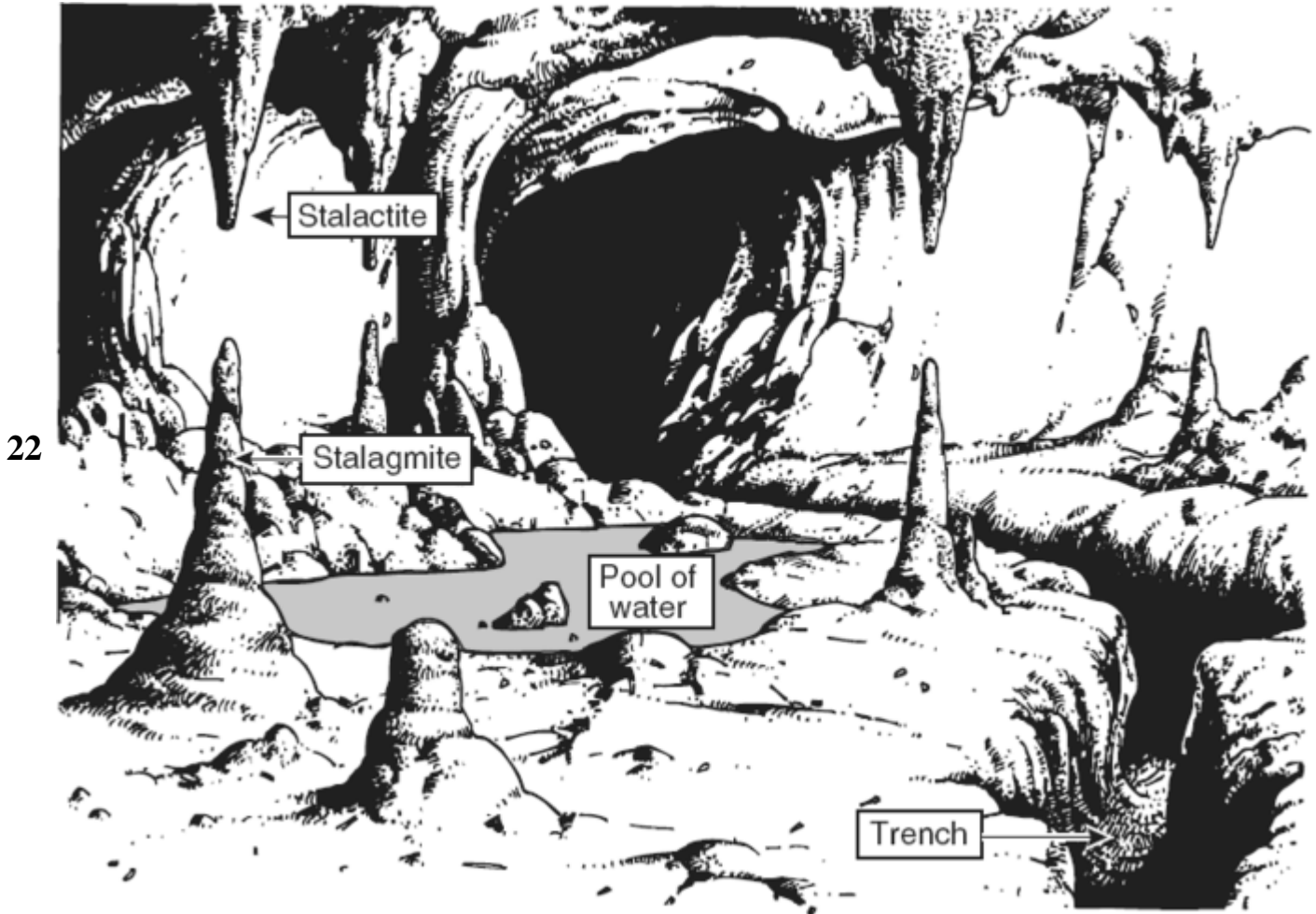
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The graph shows air temperatures taken at noon each day for a week. What is the difference between the highest and the lowest temperature? Record your answer to the nearest degree.

21 In which of these ways can volcanoes help build up new land?

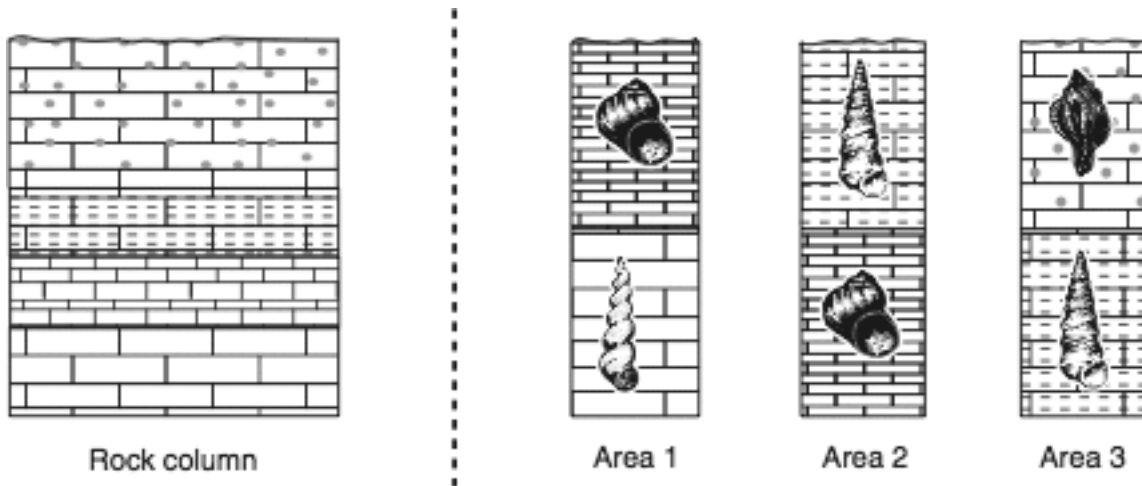
- A By adding heat to Earth’s surface
- B By adding gases to the atmosphere
- C By adding lava to Earth’s surface
- D By adding water vapor to the atmosphere



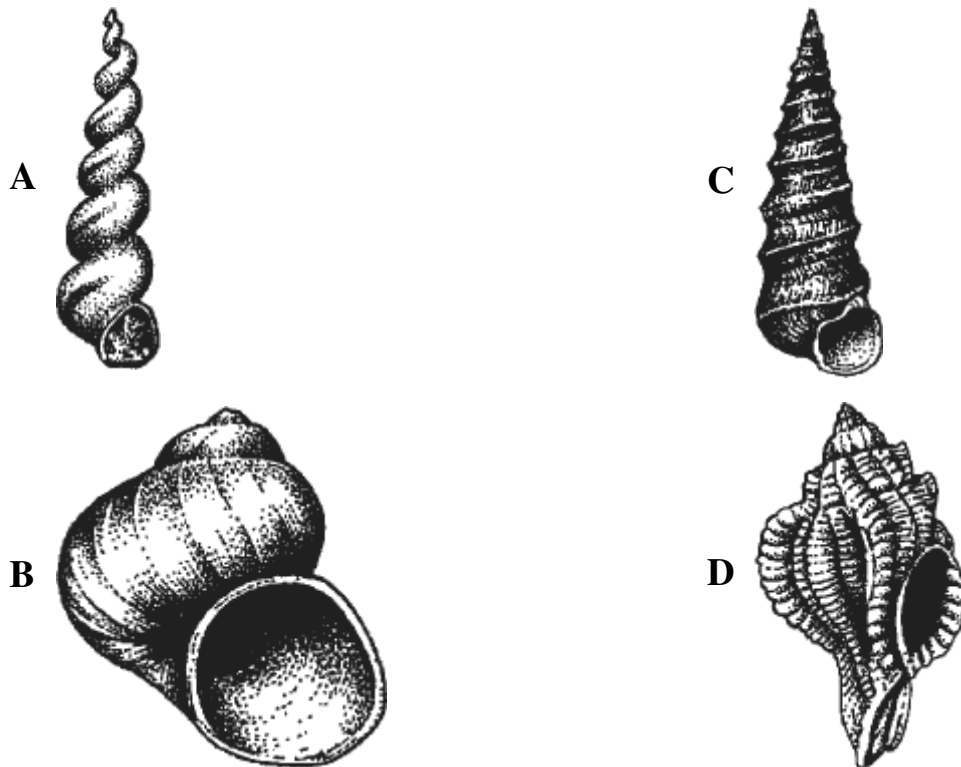
Before a field trip to a cave, a science class studied this picture. Which two features of this cave system techniques were most likely formed by the slow buildup of minerals from water drops?

- A Pool of water and trench
  - B Pool of water and stalagmite
  - C Stalactite and trench
  - D Stalagmite and stalactite
- 23 Fossil fuels formed over a long period of time because heat and pressure were applied to —
- A carbon filtered through limestone
  - B organisms buried in the ground
  - C bacteria on top of the mud
  - D nitrogen mixed in the water

24



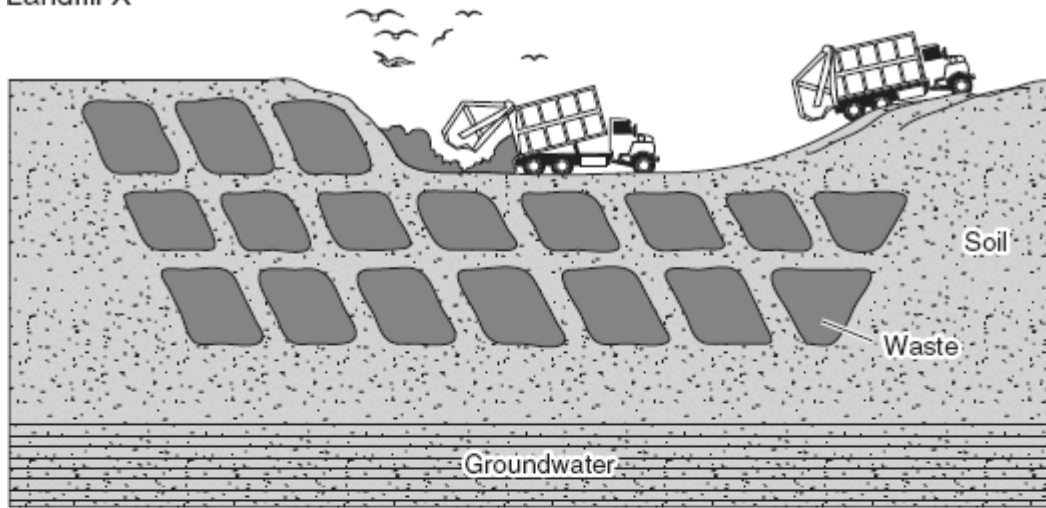
The rock column above shows the layers in a rock formation. The three diagrams above show the positions of fossils in different rock layers. According to this information, which fossil is the youngest?



**25** Which of these causes day and night on Earth?

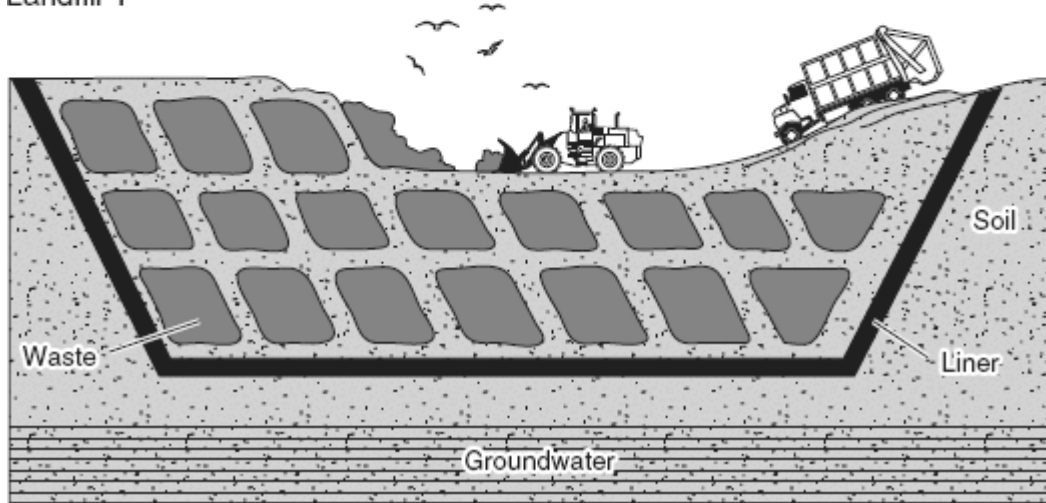
- A** Earth orbiting the sun
- B** The moon orbiting Earth
- C** Earth rotating on its axis
- D** The moon blocking sunlight

Landfill X



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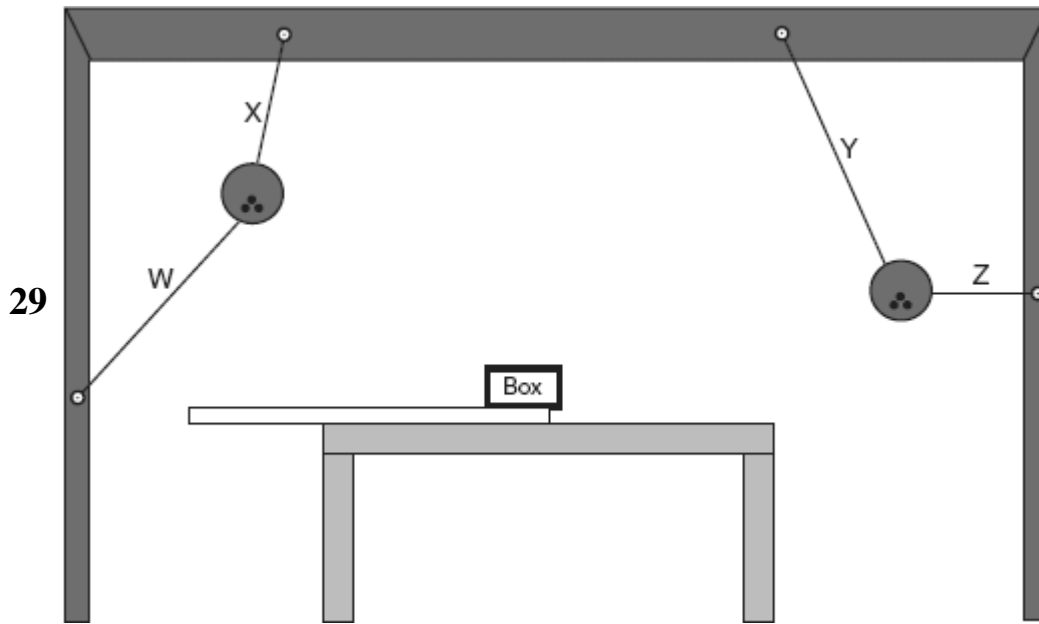
Landfill Y



The diagram shows landfills where two communities put garbage. What is the advantage of Landfill Y?

- A The waste lasts longer.
- B The groundwater is safer.
- C The soil contains more nutrients.
- D The trucks move faster.

- 27** A teaspoon of clean, dry sand is added to a cup of warm saltwater. What is most likely to happen after the mixture is stirred and then placed on a table for five minutes?
- A** The amount of water will increase.
  - B** The salt will float to the top.
  - C** The sand will settle to the bottom.
  - D** The cup will heat up.
- 28** Which of these supplies the energy that drives the water cycle?
- A** The sun
  - B** The planets
  - C** The oceans
  - D** The moon



The picture shows two bowling balls being held in position with four ropes. The box will be flipped upward if which rope is cut?

- A W
- B X
- C Y
- D Z



30



The picture shows a kind of glacier that can be many meters thick. In this landscape, which of the following is most directly affected by this kind of glacier?

- A The average height of plants on the mountain-side
- B The shape of clouds that form above the glacier
- C The average mass of trees near the lake
- D The shape of the valley between the mountains

31



This model can be used to show how the moon moves around Earth. This model also shows all of the following **EXCEPT** -

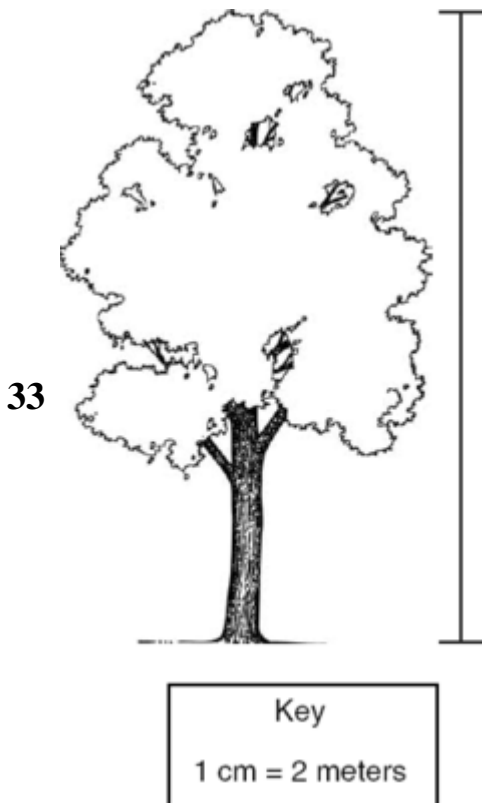
- A the amount of light Earth reflects
- B the land areas of Earth and the moon
- C how the moon makes a revolution
- D how Earth and the moon compare in size

32

Paper Towel Brand	Number of Sheets Used	Mass of Dry Paper Towel (g)	Mass of Wet Paper Towel (g)
W	2	4	56
X	3	4	62
Y	3	4	70
Z	2	4	38

Equal masses of paper towel were used to soak up water from a cup. Which question can be answered from the information above?

- A Which paper towel is the best buy?
- B Which paper towel is most absorbent?
- C Which paper towel is the most colorful?
- D Which paper towel is safest for the environment?



A diagram of an oak tree is shown above. What is the height of the tree?

- A 9 meters
- B 11 meters
- C 18 meters
- D 22 meters

34 Which of these can cause sharp, rough mountains to become rounded and smooth over time?

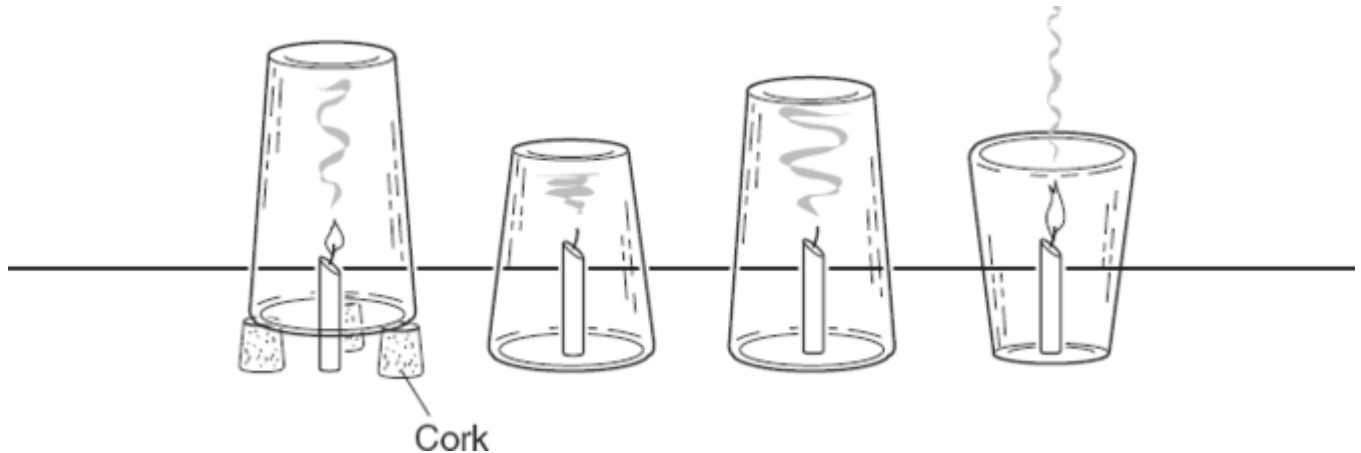
- A Wind and rain
- B The sun's rays
- C Light and darkness
- D Earth's magnetic field



This laboratory symbol shows that when performing an experiment, students need to —

- A avoid electricity
- B protect clothing
- C keep away from food
- D protect equipment

36



Which of the following does the information in the picture support?

- A Candles cause fire.
- B Corks put out fire.
- C Fire warms glass.
- D Fire needs air.

37

Grass → Mouse → Snake → Hawk

In the diagram above, which of the following is represented?

- A Water evaporating
- B Energy being transferred
- C The moon changing phase
- D Light being reflected

38 A balance would be the best tool for measuring which of the following?

- A The texture of soil
- B The length of a stick
- C The mass of a rock
- D The color of a leaf

39

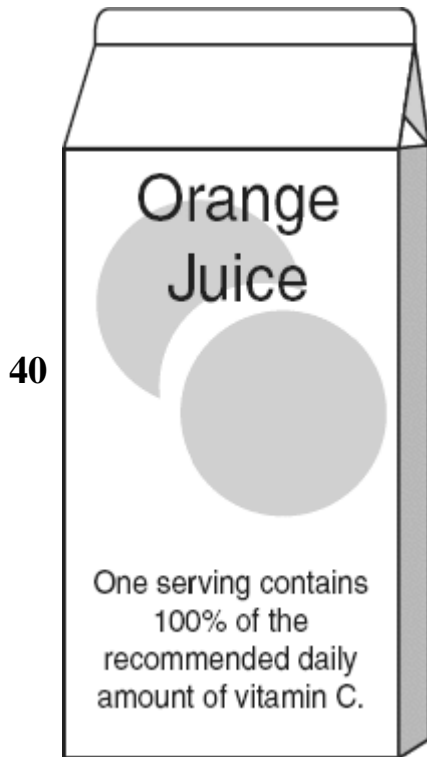
**Characteristics of  
a Hummingbird**

1. Colorful feathers
2. Narrow beak
3. Small body
4. Strong wings



All of the characteristics listed above are useful for gathering food **EXCEPT** —

- A** 1
- B** 2
- C** 3
- D** 4



The picture shows the label on a carton of orange juice. Which of these is supported by the information on the label?

- A** Orange juice turns all vitamins into vitamin C.
- B** Orange juice provides vitamin C to the body.
- C** Orange juice removes vitamin C from the body.
- D** Orange juice causes the body to need vitamin C.