

Student Name _____

Teacher Name _____

School _____

System _____



TENNESSEE

Tennessee Comprehensive Assessment Program Achievement Test ~ Grade 3 Item Sampler



Science



Reporting Category: LIFE SCIENCE 1: Cells, Flow of Matter & Energy, Heredity

Performance Indicator: 0307.1.1 Identify specific parts of a plant and describe their function.

1 Sarah used a magnifying glass to look at the roots of a plant.



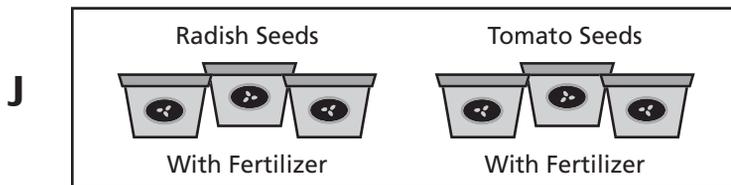
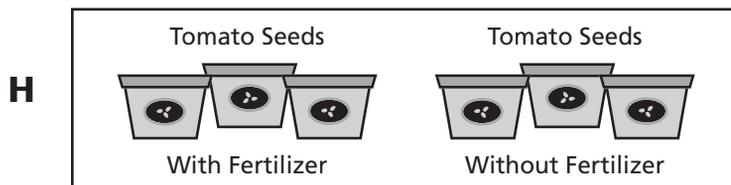
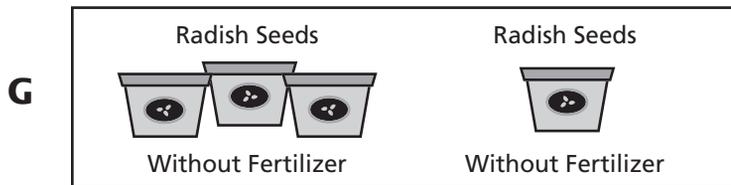
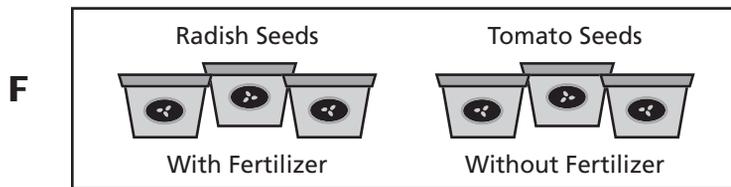
What is the main function of the roots?

- A** to store food
- B** to make food
- C** to take in water
- D** to take in soil

2 A group of students have radish and tomato seeds. They ask the following question:

Will tomato seeds grow faster if we use fertilizer?

Which experiment will best help the students answer the question?



Performance Indicator: 0307.3.1 Identify the basic needs of plants and animals.

- 3** A student placed a healthy plant outside. Five days later, the student observed that the plant looked dried and wilted.



Day 1

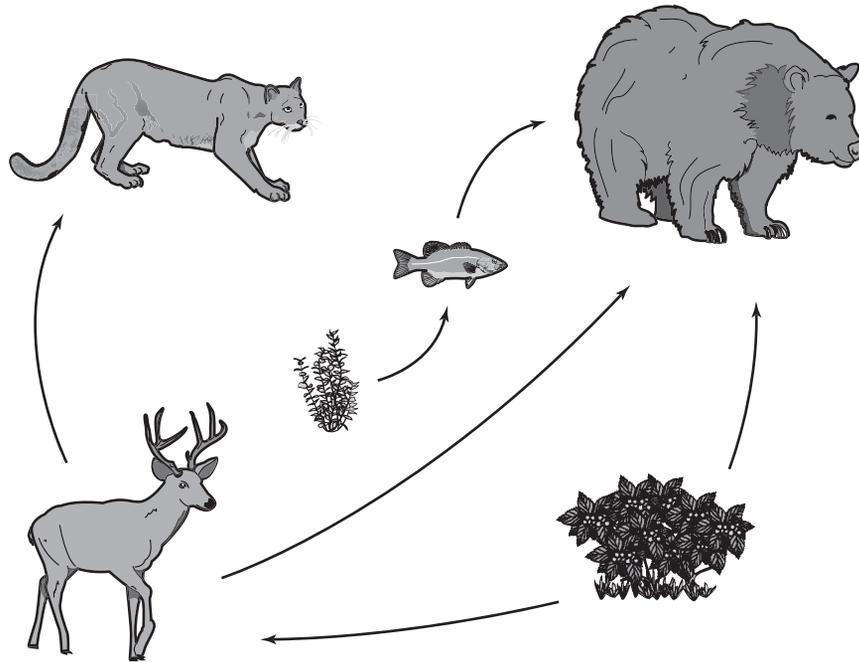


Day 5

Which basic need did the plant most likely lack?

- A air
- B soil
- C water
- D sunlight

4 A forest food web is shown below.



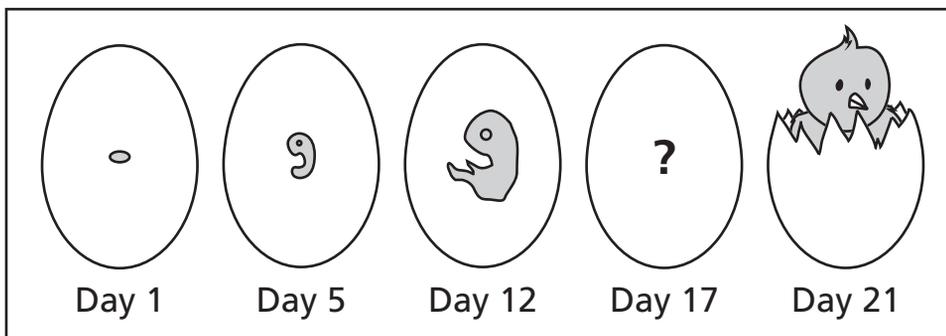
Forest Food Web

Which animal eats both plants and other animals for food?

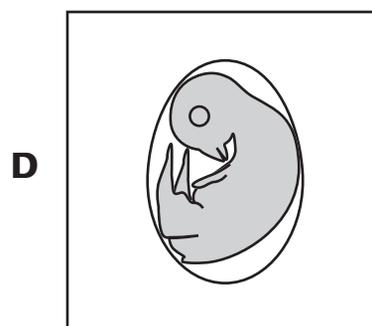
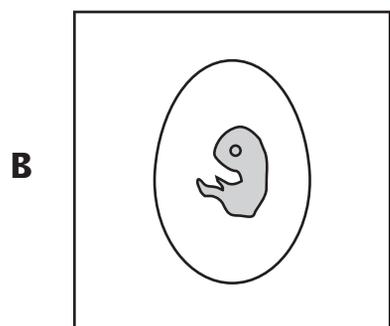
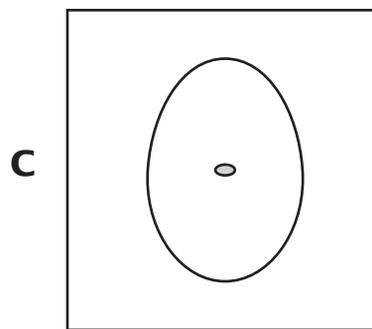
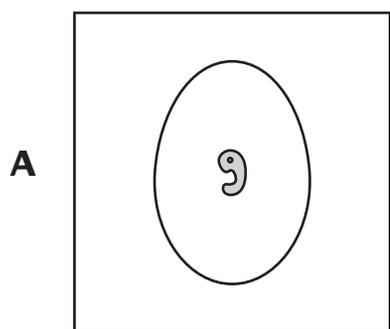
- F bear
- G cougar
- H fish
- J deer

5 It takes about 21 days for a chicken egg to hatch.

Hatching Chicken Egg Diagram



Which picture best represents the chicken egg on Day 17?



Reporting Category:

LIFE SCIENCE 1: Cells, Flow of Matter & Energy, Heredity

Performance Indicator:

0307.4.2 Distinguish between characteristics that are transmitted from parents to offspring and those that are not.

6 A raccoon is shown below.



© Kawisign/Stockphoto #7338318

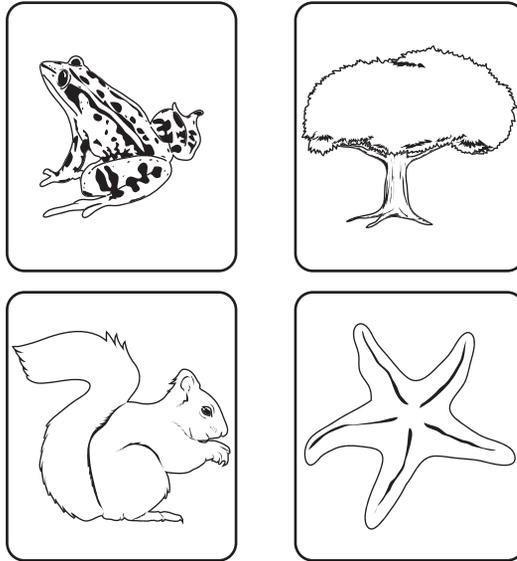
Which trait is passed from a parent raccoon to its offspring?

- F** hunting for fish
- G** using trees as a home
- H** staying warm in the winter
- J** having black fur around the eyes

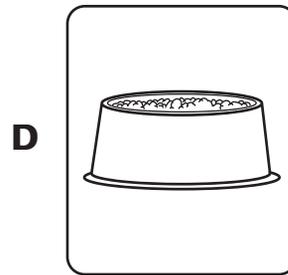
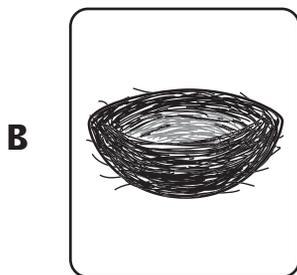
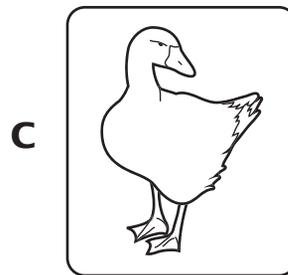
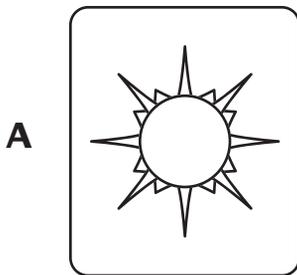
Go On ►

7 Students have a stack of cards to organize into groups. On each card is a picture of a different object. The cards that belong to Group 1 are shown below.

Group 1



Which picture card would best be placed into Group 1?



Reporting Category: LIFE SCIENCE 2: Interdependence, Biodiversity & Change

Performance Indicator: 0307.2.2 Determine how plants and animals compete for resources such as food, space, water, air, and shelter.

8 A chart with facts about four animals is shown below.

Animal Facts

Animal	What It Eats	Where It Lives
Squirrel	Nuts, berries	Trees
Owl	Insects, rodents	Trees
Fox	Berries, rodents	Ground
Bear	Berries, fish	Ground

Which animals most likely compete for shelter?

- F** Squirrel and Fox
- G** Squirrel and Owl
- H** Owl and Fox
- J** Owl and Bear

Go On ►

Reporting Category: LIFE SCIENCE 2: Interdependence, Biodiversity & Change

Performance Indicator: 0307.5.1 Investigate an organism's characteristics and evaluate how these features enable it to survive in a particular environment.

9 A tadpole has gills and a tail. A picture of a tadpole is shown below.



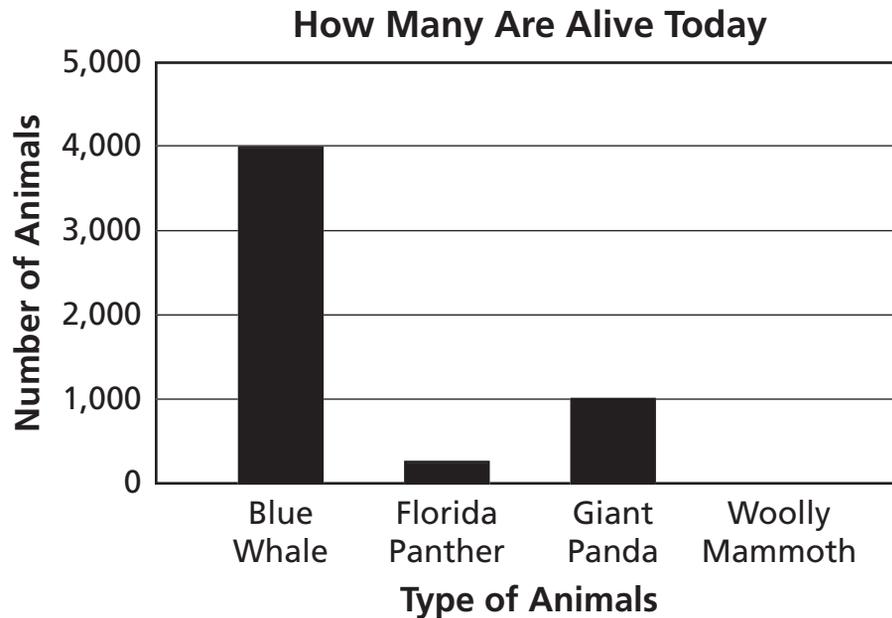
Tadpoles live in water. The gills best help the tadpole survive in water by

- A** helping the tadpole stay warm.
- B** helping the tadpole find prey.
- C** helping the tadpole get oxygen.
- D** helping the tadpole escape predators.

Reporting Category: LIFE SCIENCE 2: Interdependence, Biodiversity & Change

Performance Indicator: 0307.5.2 Investigate populations of different organisms and classify them as thriving, threatened, endangered, or extinct.

10 A graph showing the population of four animals is shown below.



Which animal is extinct?

- F** Blue Whale
- G** Florida Panther
- H** Giant Panda
- J** Woolly Mammoth

Go On ►

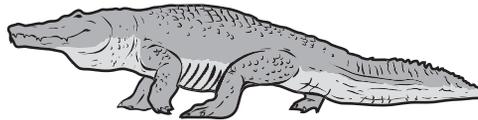
Reporting Category: LIFE SCIENCE 2: Interdependence, Biodiversity & Change

Performance Indicator: 0307.5.2 Investigate populations of different organisms and classify them as thriving, threatened, endangered, or extinct.

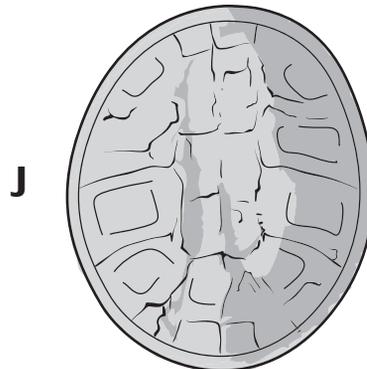
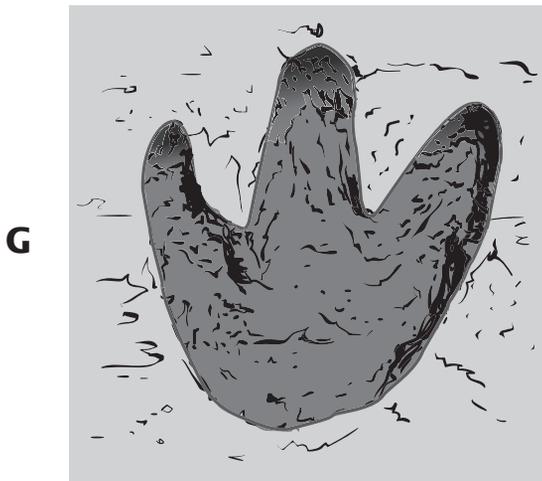
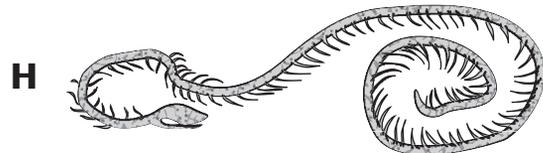
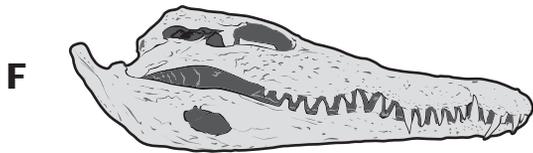
11 A type of clam called a leaf shell has not been found alive in over 75 years. This clam is best described as

- A** threatened.
- B** protected.
- C** thriving.
- D** extinct.

12 A crocodile is shown below.



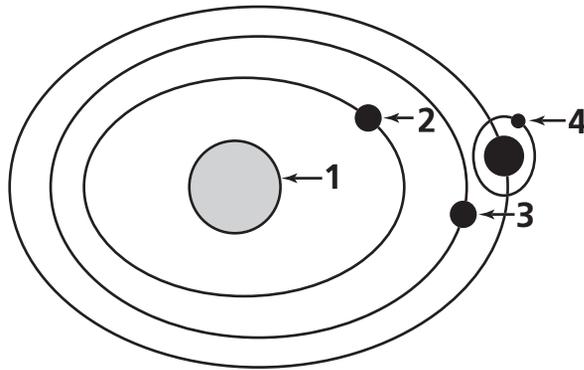
Which fossil is the best evidence that crocodiles lived long ago?



Reporting Category: EARTH AND SPACE SCIENCE: The Universe, The Earth, The Atmosphere

Performance Indicator: 0307.6.1 Identify the major components of the solar system, i.e., sun, planets and moons.

13 A diagram of the solar system is shown below.



Which object is most likely a moon?

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

Reporting Category: EARTH AND SPACE SCIENCE: The Universe, The Earth, The Atmosphere

Performance Indicator: 0307.TE.2 Recognize the connection between a scientific advance and the development of a new tool or technology.

14 Early scientists discovered how to make magnifying lenses like the one shown below.

Magnifying Lens



They used them to make things look bigger. Which of these tools was developed from these early magnifying lenses?

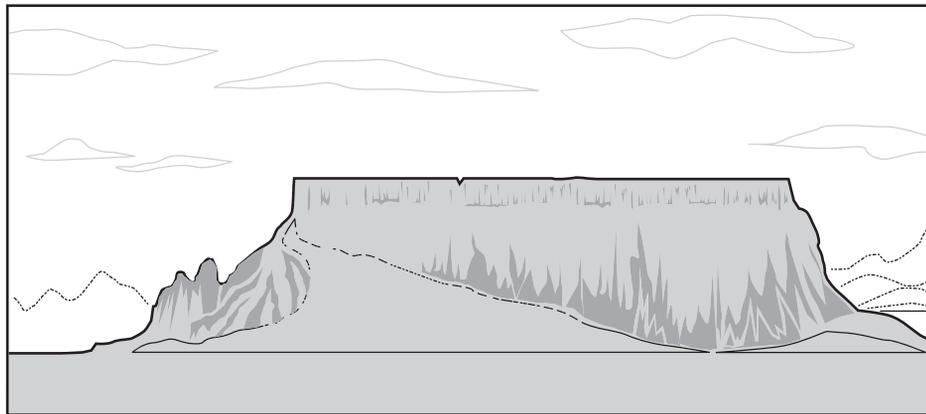
- F** telescope
- G** television
- H** window glass
- J** computer mouse

Go On ►

Reporting Category: EARTH AND SPACE SCIENCE: The Universe, The Earth, The Atmosphere

Performance Indicator: 0307.7.1 Classify landforms and bodies of water according to their geological features and identify them on a map.

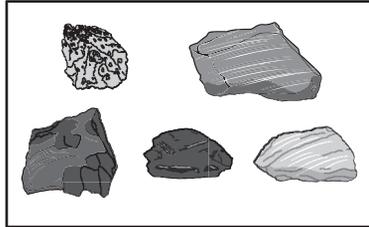
15 The diagram shows a large, flat area that is higher than the land around it.



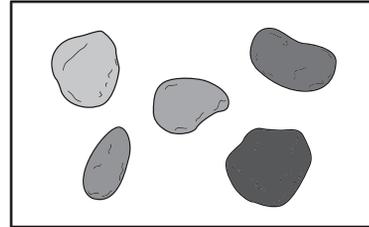
What landform is shown in the diagram?

- A** a plateau
- B** a canyon
- C** a plain
- D** a valley

16 Students sorted rocks into two groups.



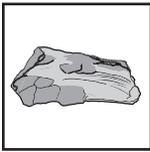
Group 1



Group 2

Which rock would best fit into Group 2?

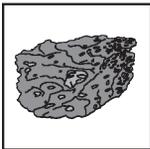
F



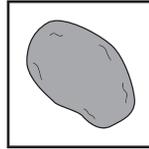
H



G



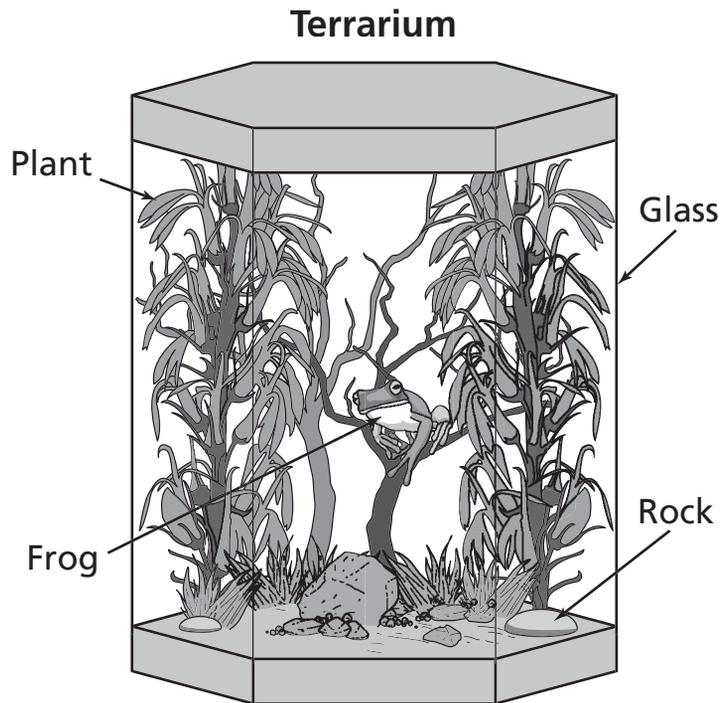
J



17 Which of these is a natural object?

- A** a fossil in a rock
- B** a picture of a fossil
- C** a clay model of a fossil
- D** a plaster mold of a fossil

18 A diagram of a terrarium is shown below.



Which object used for the terrarium is man-made?

- F** Glass
- G** Rock
- H** Frog
- J** Plant

Reporting Category: EARTH AND SPACE SCIENCE: The Universe, The Earth, The Atmosphere

Performance Indicator: 0307.7.4 Determine methods for conserving natural resources.

19 A classroom scene is shown below.



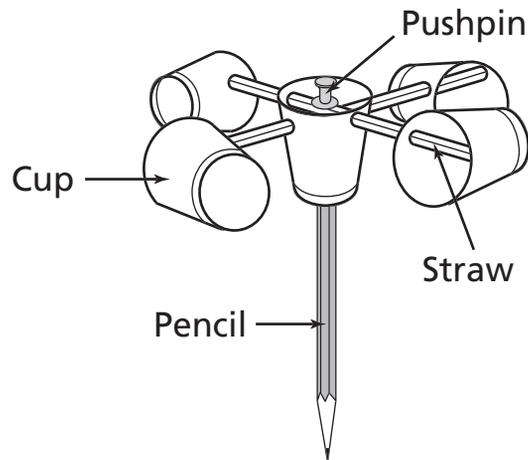
Which activity is an example of recycling?

- A** using chalk to write on the board
- B** using a trash can to throw trash away
- C** using a shoebox to plant seeds
- D** using scissors to cut paper

Reporting Category: EARTH AND SPACE SCIENCE: The Universe, The Earth, The Atmosphere

Performance Indicator: 0307.8.1 Choose the correct tool for measuring a particular atmospheric condition.

20 A student builds a model of a weather tool.



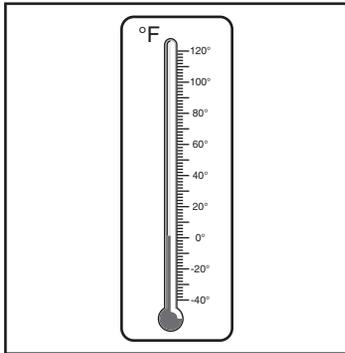
Which weather condition does this tool best measure?

- F** rainfall
- G** air pressure
- H** wind speed
- J** temperature

Go On ►

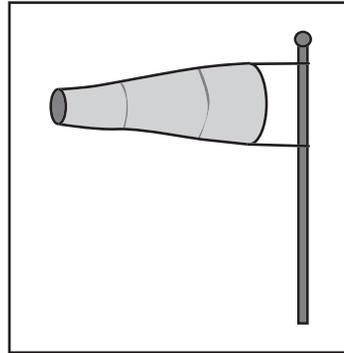
21 Long ago, scientists could not predict hurricanes. Which tool is best used to help scientists warn people that a hurricane is coming?

A



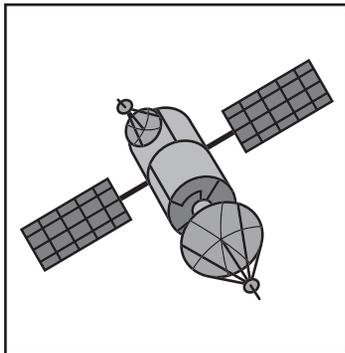
Thermometer

C



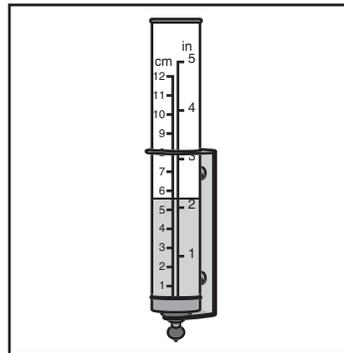
Windsock

B



Weather Satellite

D



Rain Gauge

Reporting Category: EARTH AND SPACE SCIENCE: The Universe, The Earth, The Atmosphere

Performance Indicator: 0307.8.2 Match major cloud types with specific atmospheric conditions.

22 Different types of clouds are used to predict weather.

Types of Clouds

	Picture	Description	Weather
Cirrus		Thin and wispy, high in the sky	No rain, fair weather
Cumulus		Large and puffy, have a flat bottom, low in sky	No rain
Cumulonimbus		Tall and wide, dark bottoms, low in the sky	Heavy rain, thunder and lightning
Stratus		Dark and gray, cover entire sky, low in the sky	Light to medium rain

What type of cloud is most likely seen in the sky during a thunderstorm?

- F Cirrus
- G Cumulus
- H Cumulonimbus
- J Stratus

Go On ►

23 A picture of a person with a handful of rocks is shown below.

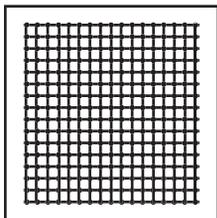


© ramplett/iStockphoto #3285656

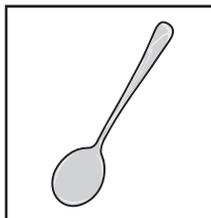
Which pair of words best describes these rocks?

- A** rough and flat
- B** smooth and oval
- C** rough and round
- D** smooth and layered

- 24** Small pieces of wood were mixed into a box of sand. Which of these would best separate the mixture?

F

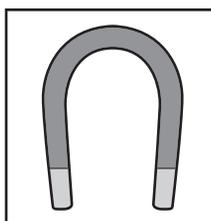
Screen

H

Spoon

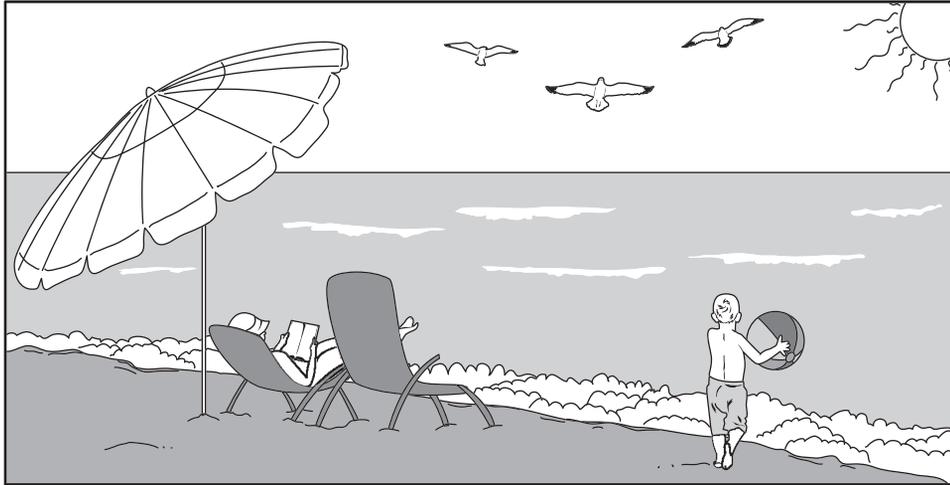
G

Rake

J

Magnet

25 A picture of a beach is shown below.



Which is the source of the greatest heat energy?

- A** the sun shining
- B** the seagulls flying
- C** the person reading
- D** the beach ball bouncing

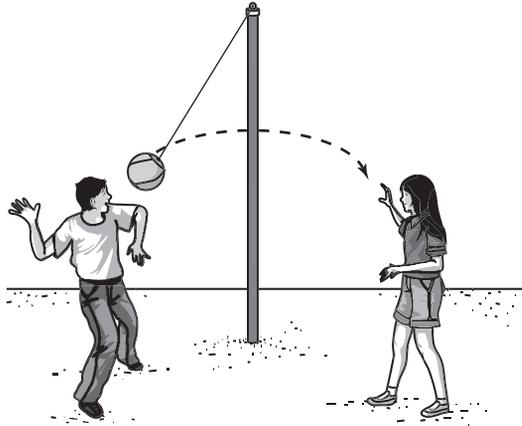
26 A group of students wanted to see how fast snow would melt in different kinds of cups. The students put 10 grams of snow into four cups. The students then made a chart that showed how long it took the snow to melt in each cup.

Kind of Cup	Total Time for Snow to Melt (minutes)
 Paper Cup	6
 Metal Cup	5
 Plastic Cup	7
 Wooden Cup	9

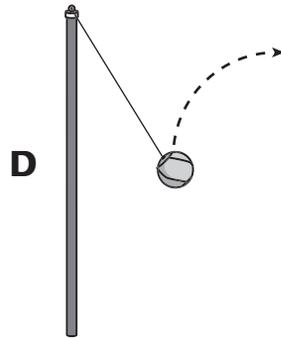
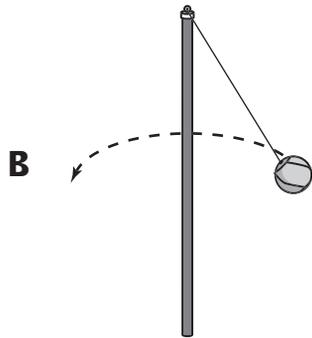
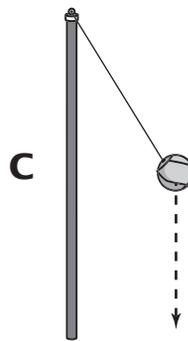
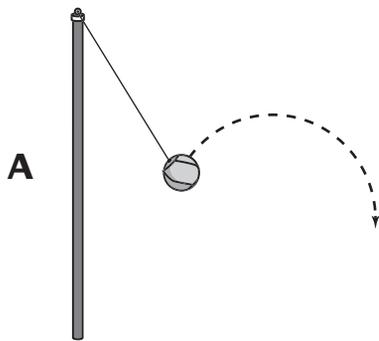
Which cup was the best conductor of heat?

- F** Paper Cup
- G** Metal Cup
- H** Plastic Cup
- J** Wooden Cup

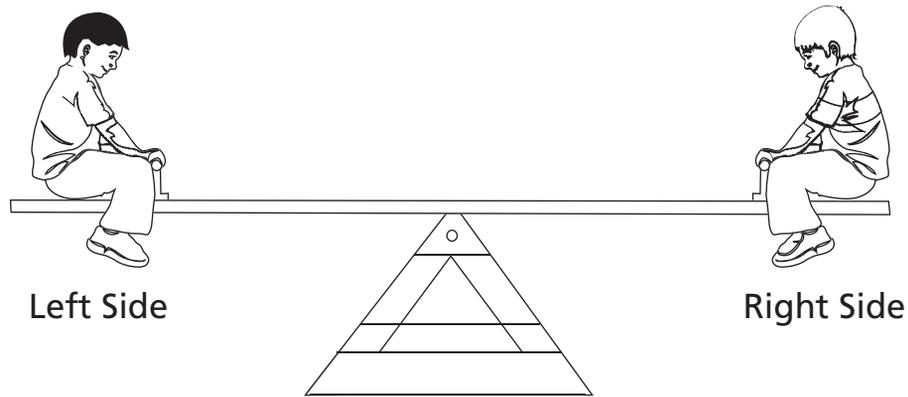
27 Tetherball is a game with a ball on a rope. The rope is tied to a pole. The ball is hit between two players.



How does the direction of the ball change when the girl hits the ball to the boy?



28 Two students sit on opposite ends of a balanced seesaw.



What will happen if the student on the right side gets off the seesaw?

- F** The seesaw will stay balanced.
- G** The left side of the seesaw will drop to the ground.
- H** The left side of the seesaw will go up in the air.
- J** Both ends of the seesaw will drop to the ground.

- 29** Students were listening to musicians play different instruments. Each student was asked to write about the differences in pitches that were heard.

Instrument	Pitch
 Piccolo	
 Tuba	
 Violin	
 Bass	

Which words would best describe pitch?

- A** soft and loud
- B** high and low
- C** heavy and light
- D** strong and weak

Reporting Category: PHYSICAL SCIENCE 2: Motion, Forces in Nature

Performance Indicator: 0307.11.3 Distinguish between pitch and volume.

30 Which word means that sound can get louder or quieter?

- F** pitch
- G** range
- H** volume
- J** vibrations

Reporting Category: PHYSICAL SCIENCE 2: Motion, Forces in Nature

Performance Indicator: 0307.11.4 Identify how sounds with different pitch and volume are produced.

31 A guitar can make sounds when someone strums the strings.



Which of these will cause the sound from the guitar to increase in volume?

- A** strumming strings for a longer time
- B** strumming strings harder
- C** strumming strings faster
- D** strumming shorter strings

Go On ►

Reporting Category: PHYSICAL SCIENCE 2: Motion, Forces in Nature

Performance Indicator: 0307.12.1 Recognize that magnets can move objects without touching them.

32 What can a teacher best demonstrate using a bar magnet and a pile of iron filings?

- F** The poles of a magnet can change direction.
- G** All metals have magnetic properties.
- H** Magnetic forces are stronger than electrical forces.
- J** A magnet can move another object without touching it.

Reporting Category: PHYSICAL SCIENCE 2: Motion, Forces in Nature

Performance Indicator: 0307.12.2 Identify objects that are attracted to magnets.

33 The names of objects were written on two lists.

<p style="text-align: center;">List 1</p> <p>Spoon Nail Paper Clip Scissors Metal Can</p>
--

<p style="text-align: center;">List 2</p> <p>Sponge Napkin Paper Cork Rubber Band</p>
--

The objects were placed on each list because the objects on List 1

- A** are lighter than the objects on List 2.
- B** are smaller than the objects on List 2.
- C** are magnetic, and the objects on List 2 are not magnetic.
- D** are made of metal, and the objects on List 2 are made of plastic.

STOP 

Science Answer Key

1	C
2	H
3	C
4	F
5	D
6	J
7	C
8	G
9	C

10	J
11	D
12	F
13	D
14	F
15	A
16	J
17	A
18	F

19	C
20	H
21	B
22	H
23	B
24	F
25	A
26	G
27	B

28	G
29	B
30	H
31	B
32	J
33	C



Tennessee Comprehensive Assessment Program

Achievement Test ~ Grade 3

Item Sampler