



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Released Items
2012**

**Grade 4
Science**

Science

- 1 A student has a penny and a nickel. She looks at them carefully. She decides that the penny and nickel are made from two different metals.

What does the student see that **best** supports her conclusion?

- A. The penny and nickel are different sizes.
- B. The penny and nickel have different values.
- C. The penny and nickel are different colors.
- D. The penny and nickel have different pictures.

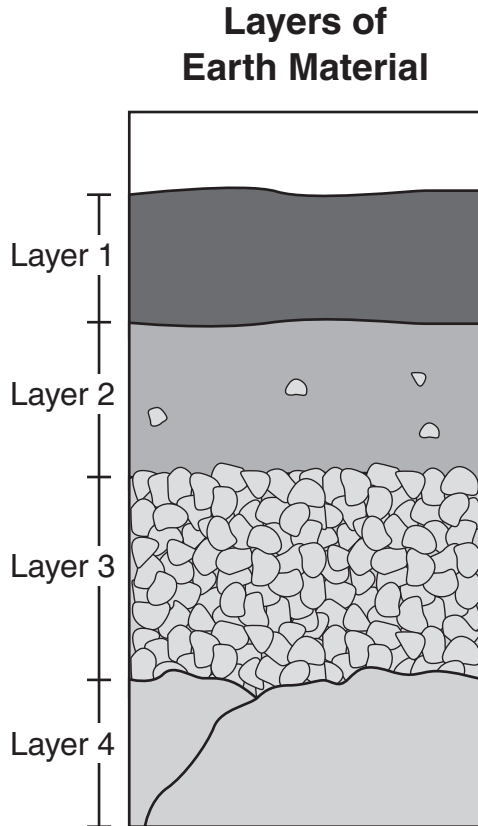
- 2 A cook uses a metal spoon to stir soup on a stove. The spoon gets hot. What path does the heat follow?

- A. stove → pan → soup → spoon
- B. stove → soup → pan → spoon
- C. stove → pan → spoon → soup
- D. stove → spoon → pan → soup

- 3 A student tests several types of magnets. Which observation could **best** help her compare the strengths of different magnets?

- A. the shape of the magnets
- B. the weight of the magnets
- C. the materials attracted by the magnets
- D. the distances objects are from the magnets when attracted

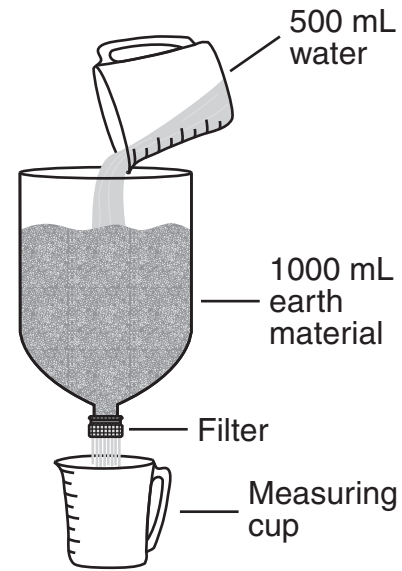
- 4 The diagram below shows four layers of earth material.



Which layer of earth material is gravel?

- A. Layer 1
- B. Layer 2
- C. Layer 3
- D. Layer 4

- 5 Students are testing three types of earth material—sand, gravel, and clay—using the setup shown below.



The students will pour water through each earth material and measure the amount of time it takes to collect 250 mL of water.

After doing the tests, which question will the students **most likely** be able to answer?

- A. Which types of earth material are eroded by water?
- B. Which type of earth material is the heaviest?
- C. How fast does water move through different types of earth material?
- D. How fast do different liquids move through the same earth material?

- 6 The table below shows normal daily temperatures in New England for a period of five years.

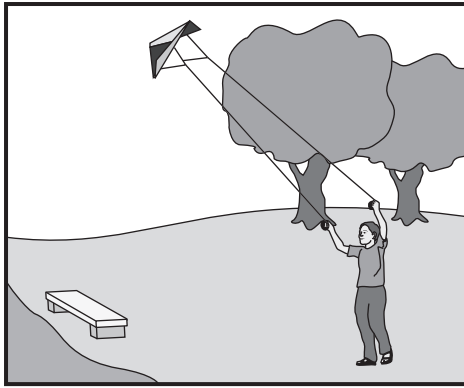
**Normal Daily Temperatures
in New England**

Year	Winter	Spring	Summer	Fall
2002	28°F	53°F	67°F	34°F
2003	20°F	52°F	66°F	36°F
2004	22°F	53°F	64°F	36°F
2005	22°F	54°F	66°F	36°F
2006	27°F	54°F	64°F	40°F

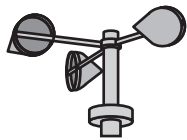
Which statement describes a weather pattern shown in the table?

- A. Winter temperatures are steadily increasing each year.
- B. Summer changes into fall earlier each year.
- C. The temperatures tend to be nearly the same during the same seasons each year.
- D. The temperatures in New England are cooler than temperatures in southern states.

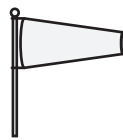
- 7 A student wants to fly his new kite. The weather needs to be just right to fly a kite.



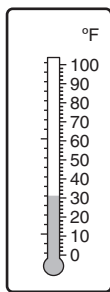
The student can use the tools shown below to learn about the weather.



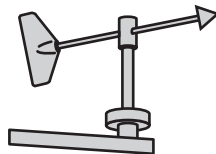
Anemometer



Wind sock



Thermometer



Wind vane

- a. Choose the **two** tools that would be **most helpful** for deciding if the weather is just right to fly a kite. Write your choices in your Student Answer Booklet.
- b. Explain why the **two** tools you chose in part (a) would be **most helpful**.

8 A student finds a leaf. He wants to find out the kind of tree it comes from. Which characteristic of the leaf is **most** helpful?

- A. color
- B. shape
- C. size
- D. texture

9 Stonefish live on the bottom of the ocean. They have skin that makes them look like a stone.

How does their skin help stonefish survive?

- A. Their skin helps stonefish sink to the bottom of the ocean.
- B. Their skin helps stonefish warn other fish to stay away.
- C. Their skin helps stonefish blend into their environment.
- D. Their skin helps stonefish keep warm.

10 A student walks her dog across a field. She notices plant seeds stuck to the dog's fur.

How does this plant **most likely** depend on animals?

- A. Animals provide the plant with energy.
- B. Animals spread the plant's seeds to new locations.
- C. Animals protect the plant's seeds from insects.
- D. Animals fertilize the plant with their droppings.