



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Student Practice Test Booklet
2008**

Grade 4

Science

Student Name: _____

School Name: _____

Science

Answer questions 1 through 9 on page 2 in your Student Answer Booklet.

- ① A jar weighs 100 g when empty. When water is added, the jar and water together weigh 125 g.

What is the weight of the water added to the jar?

- A. 25 g
 - B. 100 g
 - C. 125 g
 - D. 225 g
- ② A student predicts that the distance an object moves depends on how hard it is pushed. He designs an experiment to test his prediction.
- Which of the following is **most** important to collect during the experiment?
- A. the size of the object
 - B. the distance the object moves
 - C. the weight of the object
 - D. the temperature of the object

- ③ The roof of a house gets very hot in the summer. Light-colored roofs reflect heat. Dark-colored roofs absorb heat. The table below shows the summer temperatures of roofs on four different houses.

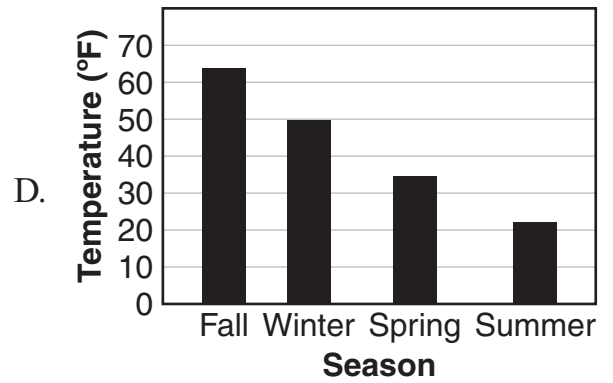
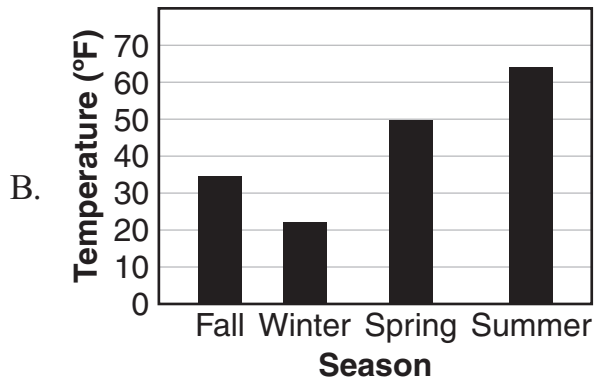
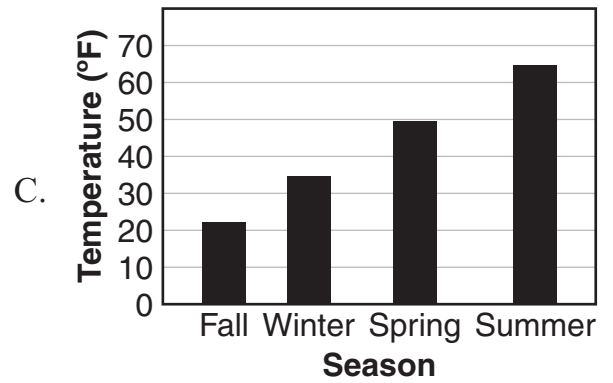
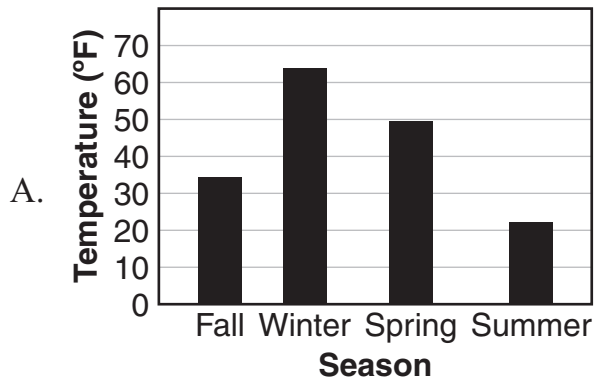
**Temperatures of
Roofs in the Summer**

Roof	Temperature
1	75°C
2	81°C
3	52°C
4	83°C

Which roof is **most likely** lightest in color?

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

- 4 Fourth-grade students in New England collected weather information. They wanted to learn the normal outside temperature for each season of the year. Which graph **best** shows the results?



5 Some useful properties of copper are listed below.

- bends without cracking
- stretches without breaking
- resists rusting
- conducts heat and electricity

Based on these properties, copper is **most** useful for making which products?

- A. bridges
- B. wires for computers
- C. furniture
- D. tools for gardening

6 Which sentence **best** describes the particles in dry sand?

- A. They are all the same color.
- B. They clump together easily.
- C. They float in water.
- D. They are all about the same size.

7 What do **all** plants need **most** to stay alive?

- A. earthworms
- B. fertilizer
- C. shelter
- D. sunlight

8 Human arms are **most** similar to which physical structure of birds?

- A. beak
- B. feathers
- C. legs
- D. wings

9 The table below gives information about four different cats.

Weights and Speeds of Cats

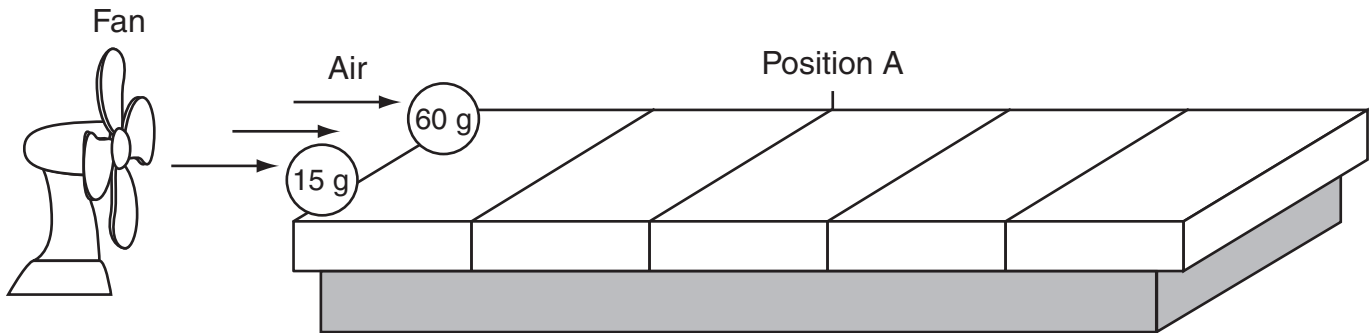
Type of Cat	Weight (mass)	Top Running Speed
Cheetah	45 kg	100 km/hr
Leopard	80 kg	80 km/hr
Lion	225 kg	56 mph
Tiger	320 kg	38 mph

What about the table makes it **most difficult** to compare the cats?

- A. Rows are not numbered.
- B. The unit used to measure speed is not the same for all the cats.
- C. The dates on which the cats were observed are missing.
- D. Information about more cats is needed.

Answer question 10 on page 2 in your Student Answer Booklet.

- 10 A student has one 15-g ball and one 60-g ball. She sets the balls in the starting positions shown below. A fan is used to blow air toward the balls.



- The fan is turned on at medium speed. The 60-g ball rolls to Position A. Predict how far the 15-g ball rolls compared with the 60-g ball. Explain your reasoning.
- The 60-g ball is returned to the starting position. The fan is now turned on at high speed. Predict how far the 60-g ball rolls compared with how far it rolled when the fan was set at medium speed. Explain your reasoning.

