

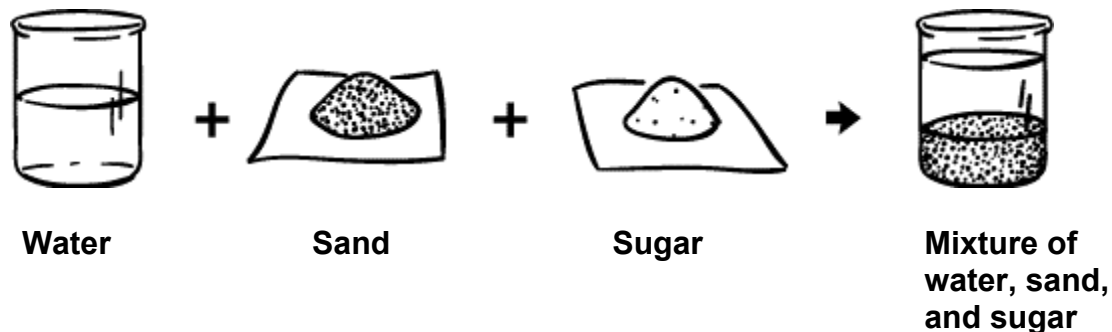
**McGraw-Hill Science © 2000, Texas Edition  
TAKS Practice Test**

**Grade 5, Chapter 8  
Putting It All Together**

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

Use the illustration, text, and your knowledge of science to answer Questions 1 to 4.



A student mixes sand and sugar into a beaker of water. The results are shown above.

- 1 In the mixture, which ingredient kept its physical properties?
- A Water
  - B Sand
  - C Sugar
  - D Only the oxygen and hydrogen atoms.
- 2 In the mixture, which ingredient dissolved in the water?  
How can you tell?
- A The sand dissolved in the water. The sand can be seen on the bottom of the beaker.
  - B The sand dissolved in the water. The sand particles grew larger with water inside them.
  - C The sugar dissolved in the water. The water is whiter because of the sugar.
  - D The sugar dissolved in the water. The sugar cannot be seen because its particles spread among the water.

- 3** In the mixture, how would the water taste?
- A** Sweet
  - B** Salty
  - C** Sandy or gritty
  - D** Just like water that is not part of a mixture

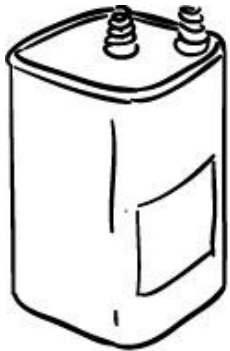
(NOTE: In the laboratory, never eat or drink any materials)

- 4** How could you separate the sugar from the rest of the mixture?
- A** Boil away the water.
  - B** Pour the mixture through a filter.
  - C** First boil away the water, and then pour the mixture through a filter.
  - D** First pour the mixture through a filter, then boil away the water.

- 5** A compass is wrapped in electrical wire, as shown in the illustration. What if electricity passes through the wire? What happens to the compass, and why?
- A** The needle spins in a circle because electricity in the wire loops act like a magnet.
  - B** The needle moves 90 degrees because electricity in the wire loops act like a magnet.
  - C** The needle stays in place. Electricity does not affect it.
  - D** The needle spins in a circle because the wires give it electrical energy.



Use the illustrations and your knowledge of science to answer Questions 6 to 9.



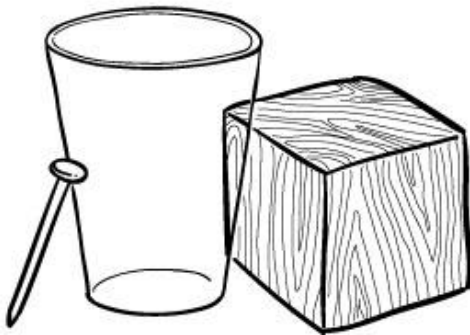
Battery



3 Wires



Light bulb  
in socket



Metal nail, plastic cup, wood block

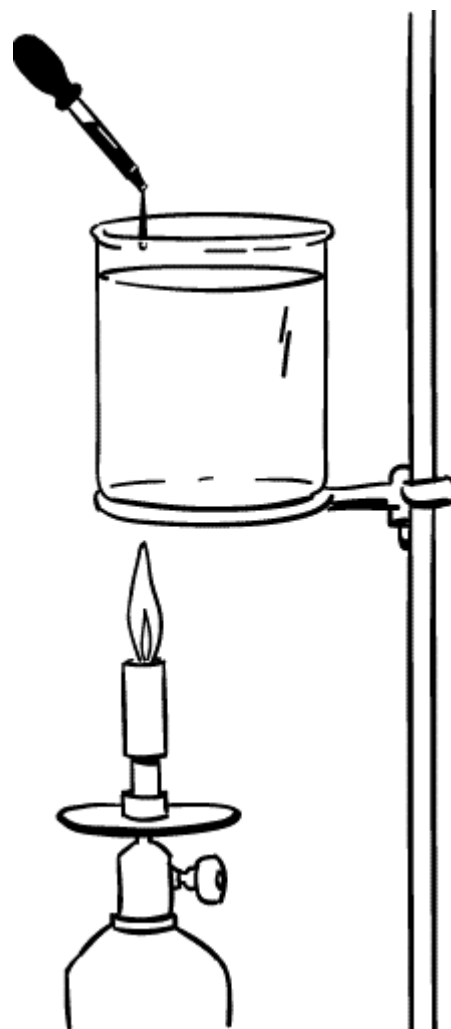
- 6** Look at the materials shown above. What question could they be used to answer?
- A** How well do a nail, cup, and block conduct electricity?
  - B** How fast does electricity travel through a wire?
  - C** Can electricity make a metal nail act like a magnet?
  - D** In which direction do electrons move in a circuit?
- 7** Of the materials shown, which must be used to light the light bulb?
- A** Light bulb, battery, and any one of the wires
  - B** Light bulb, battery, and any two of the wires
  - C** Light bulb, battery, and all three wires
  - D** Light bulb, all three wires, and the metal nail

- 8** When the materials are used to light the light bulb, how does energy change?
- A** Kinetic energy to heat energy
  - B** Kinetic energy to electrical energy to light energy
  - C** Chemical energy to light energy to kinetic energy
  - D** Chemical energy to electrical energy to light energy
- 9** When the materials are connected to light the bulb, could any of the materials grow warmer? Why or why not?
- A** Yes, electrical energy can easily change into heat energy.
  - B** No, electrical energy can change only into light, sound, or motion.
  - C** No, electricity is a “cold” form of energy.
  - D** No, energy changes only in a nuclear reactor.
- 10** What is the most important source of energy for life on Earth?
- A** Chemical energy from batteries
  - B** Fossil fuels
  - C** The Sun
  - D** Heat energy from Earth’s core

Use the illustration, text, and your knowledge of science to answer Questions 11 to 14.

The setup of an experiment is shown to the right.

A drop of dye is placed in the upper left corner of the beaker of water. A flame warms the beaker on its left side.



- 11 What is the source of energy in this experiment?
- A The water
  - B The drop of dye
  - C The flame below the beaker
  - D The Sun
- 12 What question does the experiment help answer?
- A Does dye change the boiling point of water?
  - B How does water move when it is heated from below?
  - C How hot can glass become when it is heated?
  - D Does the dye or water conduct heat best?
- 13 What if the dye moved first to the right, then down the right side of the beaker of water? Explain this observation.
- A The warm water expanded the drop of dye.
  - B The dye spread toward the hottest water in the beaker.
  - C The dye spread toward the coldest water in the beaker.
  - D Heat from the flame spread by convection through the water. Convection carried the dye.

- 14** Which of these changes would change the way dye moves in the water?
- A** Change the color of the dye.
  - B** Change the beaker from glass to strong plastic.
  - C** Move the flame from the left side of the beaker to the right side of the beaker.
  - D** Dim the lights in the room.

**ANSWER KEY and CORRELATIONS:**

<b>Question</b>	<b>Answer</b>	<b>TAKS</b>	<b>McGraw-Hill Science Grade 5 textbook</b>
1	B	5.7B	p. 344
2	D	5.2B, 5.2C, 5.7C	p. 344
3	A	5.7C	p. 340
4	D	5.2A, 5.7A	p. 342
5	B	5.8C	p. 373
6	A	5.2A, 5.7A	p. 367
7	B	5.8C	p. 367
8	D	5.8A, 5.8C	p. 371
9	A	5.8A, 5.8C	p. 370
10	C	4.11C	p. 374
11	C	5.8A, 5.2B	p. 375
12	B	5.2A	p. 375
13	D	5.2C	p. 375
14	C	5.2A	p. 375