Scientific Inquiry, 4-1

4-1.1

- 1. If your teacher asked you to make *qualitative* observations about the class's pet hamster, which group of words might be used?
- A mass of 3 kg, 11 cm long, age of 16 months
- B mass of 3 kg, 11 cm long, cute
- C long hair, white and brown colored, soft
- **D** temperature, length, weight

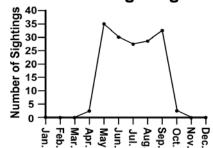
4-1.1

- 2. Hunter makes an observation during the class science investigation. He writes, "The substance reached a temperature of 100° C." What type of observation has Hunter made?
- **A** qualitative
- **B** quantitative
- **C** inference
- **D** classification

4-1.1

3. The chart below shows the number of bear sightings in Yellowstone National Park during one year. This data was collected by using —





- **A** quantitative observations.
- **B** hypothesis observations.
- **C** qualitative observations.
- **D** variable observations.

4-1.7

- 96. The fourth graders are planning for the science fair. Davis wants to explore making smoke rings. His materials include an empty soup can with a hole punched in the bottom, pieces of paper for fuel, and a lighter. What should Davis consider before performing his experiment?
- **A** Make sure to use the biggest can available.
- **B** Colored paper might be better than white paper.
- **C** Paper will be difficult to burn.
- **D** Only burn materials with adult supervision.

4-1.7

- 97. The class science activity for the week involves listening to pre-recorded tapes. Each member of the class takes a turn with tape players and headphones. How could this activity possibly cause harm to the students?
- A Listening to tapes is not good for your focus in class.
- **B** Playing the tapes too loud may cause hearing loss.
- **C** Headphones can make your ears sore.
- **D** Tape recorders are out of date for science experiments.

4-1.7

- 98. During a science activity, a student drops and breaks a light bulb. What should be done next?
- A notify the teacher about the broken bulb
- **B** tape the bulb back together with electrical tape
- **C** continue with the science activity
- **D** clean up the glass and put it in the trash

4-1.7

- 99. The class is conducting an investigation that allows them to visualize the magnetic field. The materials needed are:
 - Magnet
 - Construction paper
 - Iron filings

What important safety equipment has been left out?

- A paper towels to clean up spills
- **B** gloves to protect the hands
- **C** masks to protect the nose
- **D** goggles to protect the eyes