

Activity

The Case of the Sleeping Frog

The following paragraphs tell about an investigation carried out by a science student named Kara. See if you can put the paragraphs in the correct order. Place the number next to the paragraph that describes what you think happened first. Put the number 2 beside what you think happened next and so on. Then answer the questions.

_____ Kara obtained two liter jars and placed a live frog in each. She inserted a thermometer through a hole in the screened lid of each jar. She then placed each jar inside a larger jar. Kara filled one of the larger jars with ice cubes. The ice cubes surrounded the smaller jar that held the frog. Kara did not put any ice cubes in the other set of jars.

_____ Kara went to the library to find out about hibernation. She read several articles on the topic.

_____ Kara noted that in the jar with the ice cubes, the frog began to move more slowly and finally seemed to go to sleep. The frog's rate of breathing became slower too. These changes did not occur in the other jar. When the ice was removed from the first jar, the frog gradually became more active.

_____ Every 30 minutes Kara recorded the temperature inside each of the two smaller jars. She also recorded the breathing rate of the frog and other observations about the frog's appearance and behavior.

_____ After reading about the topic, Kara made an educated guess. She guessed that she could make a frog hibernate by making it cold.

Questions

1. What was the problem that Kara wanted to investigate?

2. What conclusions do you think Kara drew from her experiment?

Communicate Results (p. 14)

Review pages 11–14 again. Given below in Column A are descriptions of tasks that Dr. Gillette performed in his scientific investigation. Choose the step of the scientific method in Column B that best matches the description in Column A, and write the corresponding letter in the space provided.

Column A	Column B
___ 12. found that the bones were too large or too different in shape to come from any known dinosaur	a. Ask a question.
___ 13. concluded that the bones were from a yet unknown dinosaur	b. Form a hypothesis.
___ 14. measured the bones and compared the measurements with those of bones from known dinosaurs	c. Test the hypothesis.
___ 15. shared his discovery in a press conference and in a report	d. Analyze the results.
___ 16. wondered what kind of dinosaur the bones came from	e. Draw conclusions.
___ 17. thought the bones came from a kind of dinosaur not yet known to scientists	f. Communicate results.