

## Investigation and Experimentation

Name:

## Investigation and Experimentation Benchmark Review

Period:

Use your brain to answer the following questions, then check your work using Chapter 1, Sections 1-2.

\_\_\_\_\_ 1. In the sentence “They used a variety of print resources in their research project,” what does the word *resources* mean? [from Section 1]

- a. materials used to make products
- b. materials containing information
- c. materials used to gather information
- d. materials about science

2. What are three examples of resources scientists might use to collect information as part of a research project? [from Section 1]

#1—

#2—

#3—

3. Your classmate says that all information on the Internet is reliable. Do you agree with this statement? Explain your answer. [from Section 1]

\_\_\_\_\_ 4. The steps of scientific methods... [from Section 2]

- a. must all be used in every scientific investigation.
- b. must always be used in the same order.
- c. often start with a question.
- d. always result in the development of a theory.

5. A scientist who studies mice observes that on the day the mice are fed vitamins with their meals, they perform better in mazes. What hypothesis would you form to explain this phenomenon? Write your hypothesis as an if-then statement. [from Section 2]

*turn the page over for more questions*

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Use the table below to answer the next question.

Number of Frogs		
Year	Normal	Deformed
1999	25	0
2000	21	0
2001	19	1
2002	20	2
2003	17	3
2004	20	5

6. A group of citizens wants the local government to ban the use of a new chemical pesticide. The group proposes that since 1999, when the pesticide was first used, the number of deformed frogs has increased. To support the proposal, the group submits the table above. Do you think that the pesticide should be banned, or is more information needed? Explain your answer. *[from Section 2]*

7. Why is it important for scientists to write reports about the scientific investigations that they perform? *[from Section 2]*

8. List two ways that scientists communicate the steps and results of investigations. *[from Section 2]*

#1—

#2—