Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Scientific Reasoning Quiz**

1. \_\_\_\_What type of reasoning do scientists use when looking at problems?
   1. Inductive
   2. Deductive
   3. Inductive and deductive
   4. Operational
2. \_\_\_\_What type of reasoning moves from specific observations to general theories?
   1. Inductive
   2. Deductive
   3. Scientific
   4. Operational
3. \_\_\_\_What type of reasoning moves from general to specific?
   1. Inductive
   2. Deductive
   3. Scientific
   4. Operational
4. \_\_\_\_Why is it important for an experiment to contain a control?
   1. So that scientists can take measurements
   2. So that scientists can compare what has the effect in the experiment
   3. So that scientists can make observations
   4. So that scientists can hypothesize
5. \_\_\_\_What is the condition being changed in an experiment called?
   1. Control
   2. Observation
   3. Variable
   4. Changer
6. \_\_\_\_Observations that are in numeric form are called\_\_\_\_\_\_\_.
   1. Qualitative
   2. Quantitative
   3. Control
   4. Variable
7. \_\_\_\_Observations that are in descriptive form are called\_\_\_\_\_\_\_.
   1. Qualitative
   2. Quantitative
   3. Control
   4. Variable
8. \_\_\_\_Scientists use observations in order to formulate \_\_\_\_\_\_\_\_\_\_.
   1. Conclusion
   2. Control
   3. Hypothesis
   4. Variable
9. \_\_\_\_Which of the following would be considered a qualitative observation?
   1. 10 ft long
   2. 3.9 meters wide
   3. 10º C
   4. Bright purple
10. \_\_\_\_Which of the following would be considered a quantitative observation?

a. 3.5 meters

b. Bubbles vigorously

c. Reacts with acid

d. Forms a blue precipitate