

Accelerated Chemistry – Unit 1 Review

Name: Key

1. Match each numbered term with a lettered term.

- | | |
|---------------------------|-------------------|
| 4 a. Physical chemistry | 1. composition |
| 3 b. Organic chemistry | 2. life |
| 1 c. Analytical chemistry | 3. carbon |
| 5 d. Inorganic chemistry | 4. behavior |
| 2 e. Biochemistry | 5. Without carbon |

2. What is the purpose of an experiment as part of the scientific method? *To test a hypothesis.*

3. You perform an experiment and get unexpected results. According to the scientific method, what should you do next? *Retry the experiment. If you get the same results, modify your hypothesis and experiment again.*

4. Which of the following is not a part of the scientific method?

- a. Hypothesis
- b. Experiment
- c. Guess
- d. Theory

5. You have a sore throat, so you go to the doctor. The doctor examines your throat and says she thinks you have strep throat. She takes a sample to test for strep bacteria. What parts of the scientific method is the doctor applying? *Observation, Hypothesis, Experiment*

6. You perform an experiment and find that the results do not agree with theory. Is something wrong with your experiment? *Possibly, you should try the exp. again. If you get the same results, then you might have disproved a theory.*

7. Criticize the statement, "Theories are proven by experiments."
tested

8. The branch of chemistry that studies most carbon-containing substances is _____ chemistry.

- a. Physical
- b. Inorganic
- c. Analytical
- d. Organic

9. An analytical chemist is most likely to:

- a. Explain why paint is stirred before it is uses.
- b. Explain what forces keep paint attached to the steel frame of an automobile.
- c. Identify the type of paint chips found at the scene of a hit-and-run accident.
- d. Investigate the effect of leaded paint on the development of young children.

Use this paragraph to answer questions 10-12.

(1) On a cold morning, your car does not start. (2) You say, "Oh no! The battery is dead!" (3) Your friend who works on cars uses a battery tester and finds that the battery has full charge. (4) Your friend notices a lot of corrosion on the battery terminals. (5) Your friend says, "Maybe corrosion is causing a bad connection in the electrical circuit, preventing the car from starting." (6) Your friend cleans the terminals and the car starts.

10. Which statements are observations? *1, 3, 4*

11. Which statements are hypotheses? *2, 5*

12. Which statement describes an experiment? *3, 6*

13. List three properties of an iron nail. *solid, metallic, shiny gray*

14. What is the physical state of each of the following items at room temperature

- a. Gold *S*
- b. Gasoline *L*
- c. Helium *G*
- d. Paraffin wax *S*
- e. Rubbing alcohol *L*