

Chemistry Chapter 1
Questions on Pages 3-8

Name: _____

Date: _____ Hour: _____

1. Name the four products produced by the chemical industry mentioned on page 3. _____

2. What is our world made of? _____
3. Describe how Wallace H. Carothers discovered nylon. _____

4. What do chemical engineers do? _____

5. What is a theory? _____
6. What is a chemical? _____
7. What is energy? _____
8. What two general forms of energy does an object have? _____

9. Explain how potential energy is related to electrons in an atom. _____

10. What is kinetic energy related to? _____
11. What are two ways energy is transferred between objects? _____

12. Energy can be _____ from one kind to another.
13. What is mass? _____

14. Write the three statements related to the law of conservation of mass:

(a) _____

(b) _____

(c) _____

15. Write four statements related to the law of conservation of energy:

(a) _____

(b) _____

(c) _____

(d) _____

16. Who showed that the laws of conservation of mass and energy were not always true? _____

17. Explain WHY the laws of conservation of mass and energy are not always true. _____

18. State what the letters in $E = mc^2$ stand for:

E = _____

m = _____

c = _____

19. What does $E = mc^2$ mean? _____

20. Write three statements related to the law of conservation of mass-energy:

(a) _____

(b) _____

(c) _____