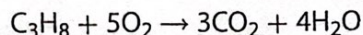


Chapter Test B**Foundations of Chemistry****Multiple Choice**

Directions: On the line before each question or statement, write the letter of the correct answer.

- _____ 1. The chemical equation for the reaction that occurs when propane gas burns is shown below. What are the products of this reaction?



- A. C_3H_8 and 5O_2
B. 5O_2 and 3CO_2
C. $4\text{H}_2\text{O}$ and C_3H_8
D. 3CO_2 and $4\text{H}_2\text{O}$
- _____ 2. Which physical property would be most useful for separating the substances in a saltwater solution?
- A. mass
B. density
C. magnetism
D. boiling point
- _____ 3. A change in _____ is a sign that a chemical change might have occurred.
- A. size
B. state
C. smell
D. shape

Matching

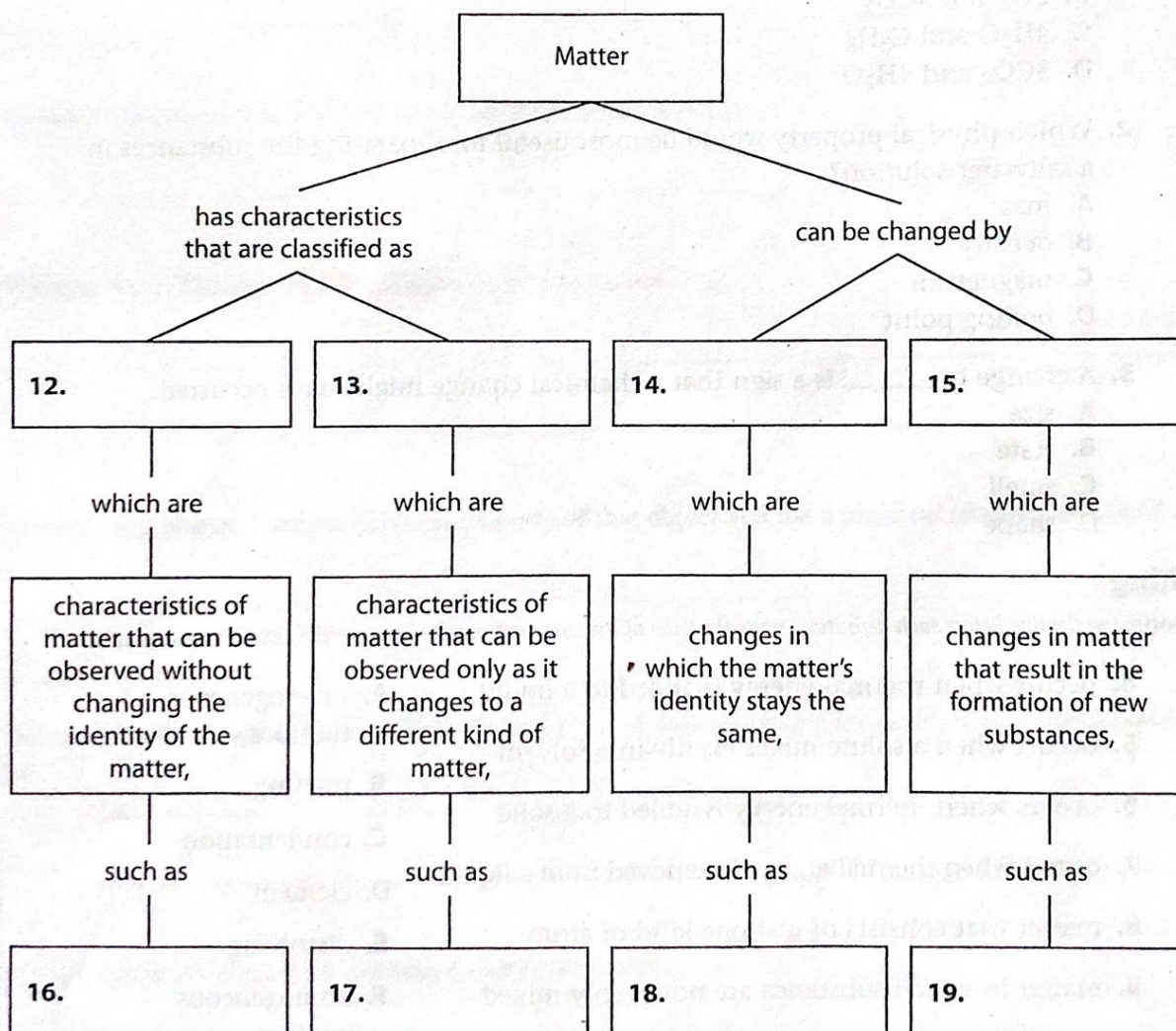
Directions: On the line before each definition, write the letter of the term that matches it correctly. Not all terms are used.

- | | |
|--|--------------------------|
| _____ 4. occurs when thermal energy is added to a liquid | A. heterogeneous mixture |
| _____ 5. occurs when a solute mixes evenly in a solvent | B. melting |
| _____ 6. occurs when thermal energy is added to a solid | C. condensation |
| _____ 7. occurs when thermal energy is removed from a liquid | D. element |
| _____ 8. matter that consists of just one kind of atom | E. dissolving |
| _____ 9. matter in which substances are not evenly mixed | F. homogeneous mixture |
| _____ 10. matter containing atoms of two or more elements chemically bonded together | G. boiling |
| _____ 11. matter in which substances are evenly mixed but not chemically bonded | H. freezing |
| | I. compound |

Chapter Test B continued

Interpreting a Diagram

Directions: Complete this concept map by choosing terms from the word bank and writing them in the correct spaces. Not all terms are used.



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Chapter Test Continued: Short Answer.

20. Identify two common **elements** you see or use every day.

21. Identify two common **compounds** you use or see every day. (You can write its chemical formula).

22. Identify a **homogenous** mixture and a **heterogeneous** mixture.

23. What is the difference between substance and mixtures?

24. Identify any object. Name a physical property of that object and list a physical change that could occur.

25. Identify another object. Name a chemical property of that object and list a chemical change that could occur.

26. Name two ways you could increase a chemical reaction.

27. Balance the following equation:



Physical and Chemical Changes

A. Label each process as a physical or chemical change:

- _____ 1. perfume evaporating on your skin
- _____ 2. butter melting
- _____ 3. wood rotting
- _____ 4. melting copper metal
- _____ 5. burning sugar
- _____ 6. mixing sugar in water
- _____ 7. digesting food

B. Which of the following would NOT be a physical change?

- a. freezing water to make ice cubes
- b. melting gold to make jewelry
- c. burning gasoline in a lawnmower
- d. boiling water for soup
- e. tearing a piece of aluminum foil

C. Which are physical and which are chemical changes?

- _____ 1. boil
- _____ 2. burn (combustion)
- _____ 3. crumple
- _____ 4. melt
- _____ 5. rust
- _____ 6. crush
- _____ 7. freeze
- _____ 8. explode
- _____ 9. evaporate

D. Pick ONE of the chemical changes above, and list signs/proof that makes you know it was a chemical change.
