

Chapter 2 Review: Answers

1. a
2. c
3. b
4. d
5. b
6. anything that has mass and takes up space.
7. describe a pure substance's ability to change into different substances.
8. cannot be broken down into any other substances by chemical or physical means.
9. matter is not created or destroyed in any chemical or physical change.
10. energy is taken in.
11. Compounds- pure substances made up of two or more elements
chemically combined; elements combined in a specific ratio; properties
differ from those of combined elements
Mixtures- not pure substances; made up of two or more elements and/or
compounds not chemically combined; parts not combined in a specific
ratio; mixed substances retain individual properties
12. In a physical change, the same substance is present before and after the
change. In a chemical change, new substances are produced.
13. Every physical or chemical change in matter includes a change in energy.

14. The burning wax releases energy in the form of light (electromagnetic energy) and heat (thermal energy). A change that gives off energy is an exothermic change.
15. Fruit punch is a solution because its parts retain their individual properties but are evenly mixed.
16. Sample answer: The solution would taste salty so the salt would still be present. Boiling the liquid separates the water from the salt.
17. The reaction released energy. The temperature of the reaction mixture increased.
18. 2:5; the compound P_2O_5 has two atoms of phosphorus for every five atoms of oxygen.
19. Diagrams A and B represent single elements because each is made up of a single type of atom.
20. Diagrams A, B, and D represent pure substances. Diagrams A and B represent elements. Diagram D represents a compound because its two kinds of atoms are chemically combined in a set ratio.
21. A--a single kind of atom; D--two kinds of atoms.
22. Diagram C represents a mixture because it contains several different kinds of substances that are not chemically combined.