

Part 3: Science

Bonus Chapter

Chapter 18: Chemistry

Question

1. Which of the following is an example of a physical change?
 - (1) A log is burned.
 - (2) A cake is baked.
 - (3) A firecracker explodes.
 - (4) A sandwich is digested.
 - (5) A piece of paper is crumpled.

Answer

1. (5) A physical change is something that you can change back. If I crumple up a piece of paper and straighten it back out, it is still paper. The other examples are all chemical changes; I cannot get back the original substance.

Question

1. A student places a piece of wood and a rock into water. The wood floats and the rock sinks. This student is demonstrating what concept of chemistry?
 - (1) Electron clouds
 - (2) Balanced equations
 - (3) Functions of gases
 - (4) Ionic bonding
 - (5) Density

Answer

1. (5) Density describes why things sink or float and is defined as the mass per unit volume of a substance. Electron clouds (1) are the electron rings around an atom. Balanced equations (2) are the way to demonstrate a chemical reaction. The functions of gases (3) relate to gas volume, not solid material. Ionic bonding (4) describes one element giving an electron to another element.

Chapter 20: Earth and Space Science

Question

1. The lithosphere includes
 - (1) all of the core.
 - (2) part of the core.
 - (3) all of the mantle.
 - (4) part of the mantle.
 - (5) the crust.

Answer

1. (5) Lithosphere is another name for the crust, the solid portion of our earth.