Physical changes

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?A physical change in a substance doesn't change what the original substance is. In this no new substance is formed and no chemical reaction takes place to change the end product of this type of the change.

For example, If we cut the piece of paper then still it is paper, no new substance is formed out of cutting. Hence, it is a physical change. If the same piece of paper is burned, and get converted into different substances that are not paper then it would be a chemical change.

Physical changes can be reversed, chemical changes cannot be reversed with the substance changed back without extraordinary means, if at all. For example, a cup of water can be frozen when cooled and then can be returned to a liquid form when heated.

If one decided to mix sugar into water to make sugar water, this would be a physical change as the water could be left out to evaporate and the sugar crystals would remain. However, if one made a recipe for a cake with flour, water, sugar and other ingredients and baked them together, it would take extraordinary means to separate the various ingredients out to their original form.

When heat is given off in a chemical change or reaction, it is called an exothermic reaction. When heat is absorbed in a chemical change or reaction, it is called an endothermic reaction. The speed at which chemical reactions take place depend on the temperature pressure and how concentrated the substances involved in the chemical reaction are. Sometimes substances called catalysts are used to speed up or help along a chemical reaction. Some examples for physical changes has been mentioned below.

1. Crumpling a sheet of aluminum foil
2. Melting an ice cube
3. Casting silver in a mold
4. Breaking a bottle
5. Boiling water
6. Evaporating water
7. Shredding paper
8. Sublimation of dry ice into carbon dioxide vapor