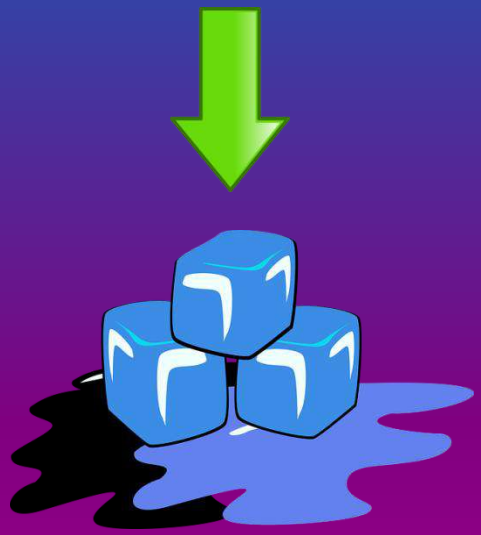
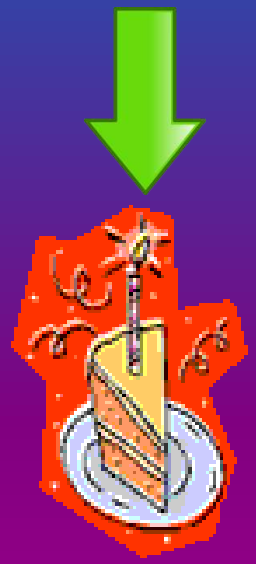
Physical Change



Chemical Change



Let’s Get Physical (and Chemical)

By: Alex Ketover

Magical Mixtures and Crazy Compounds

A mixture is two materials that are physically combined. In a mixture the parts simply blend together without forming a new substance, they are not completely blended. It's easy to separate the mixture back into it's original substances without having to have chemical reactions. A mixture can be separated by hand. A compound is when two materials are chemically combined to form a new substance. In a compound the new substance has different properties than the original substances that make it up. It's hard to separate a compound once the materials are completely combined. A compound's smallest unit is a molecule, but a molecule is not necessarily a compound.

Mixture

Compound

Homogeneous vs. Heterogeneous

Another word for Homogeneous is Solution. A solution is when two or more substances are evenly spread through one another. A solution can be a liquid, solid, or gas. Heterogeneous mixtures are even more common than solutions. In a solution the smaller part is a solute. The bigger part which is making the solute dissolve is called the solvent. Solutions are usually transparent or evenly colored. Heterogeneous mixtures settle into layers. They are either cloudy or opaque. They are not evenly mixed. One of the most common heterogeneous mixture is a Suspension. Suspensions form when one substance is insoluble or does not dissolve in a solvent.

Solution

Heterogeneous

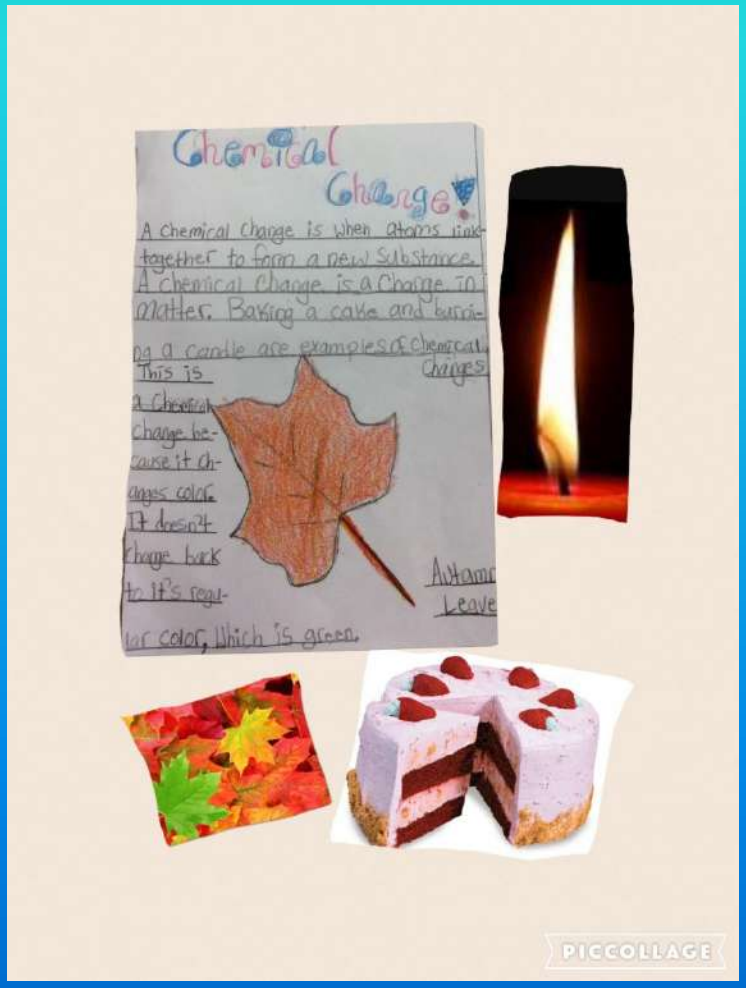
Cool Chemical Changes vs. Phenomenal Physical Changes

Chemical changes occur when atoms link together in new ways. Chemical Changes are often referred to as Chemical reactions. The original substances are called the reactants. The new substances produced by the chemical reactions are called the products. A chemical change is a change in matter. In a Physical Change matter changes in size, shape, and state without changing identity. A physical change is a change in solid, liquid, and gas. In a physical change the substances can be separated physically.

Chemical Change

Physical Change

Chemical Change Pic-Collage



Physical Change Pic-Collage

Why does this matter?

This matters because these changes can provide you energy and food. These changes can also give or provide you heat to warm up your home. They make bread rise and bake so you can have a delicious meal. You can get electricity and light from chemical changes. You need mixtures to ride your bike or breathe fresh air. The right amount of iron helps things from rusting. You have fresh water and air because of these mixtures and changes.

References

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