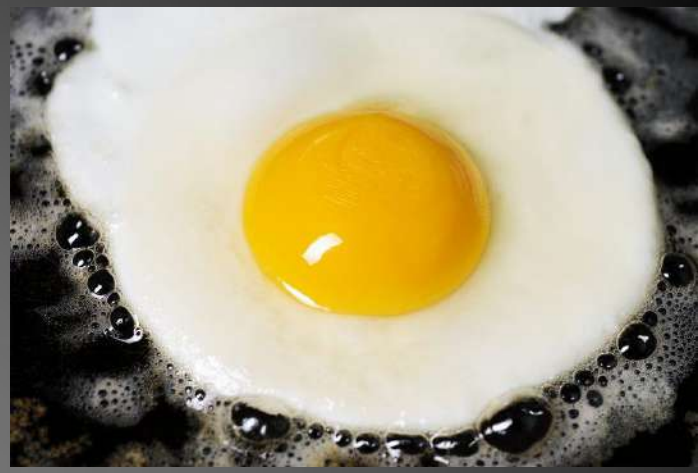


Science Project

Mason Spector

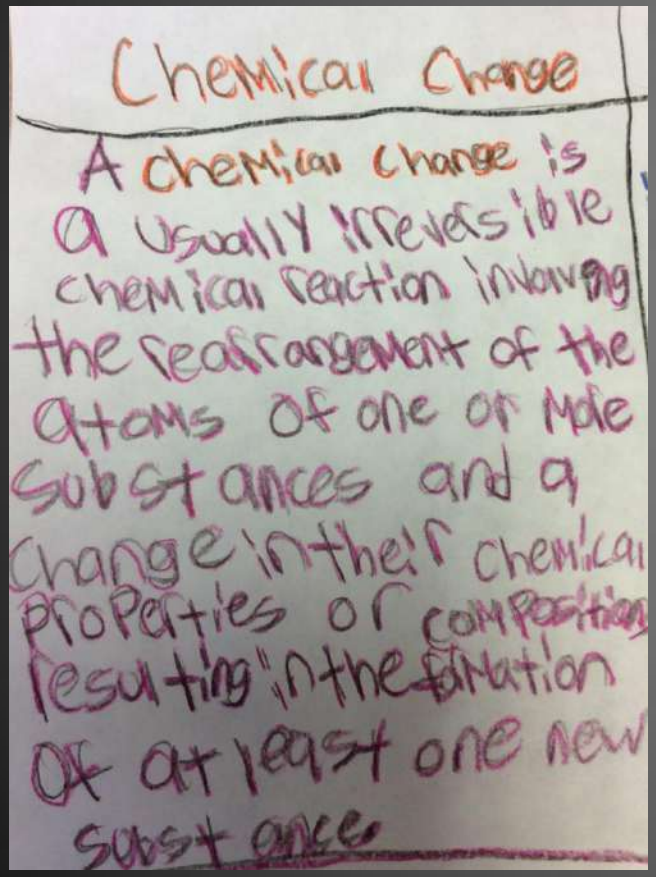
Mixture vs. Compound

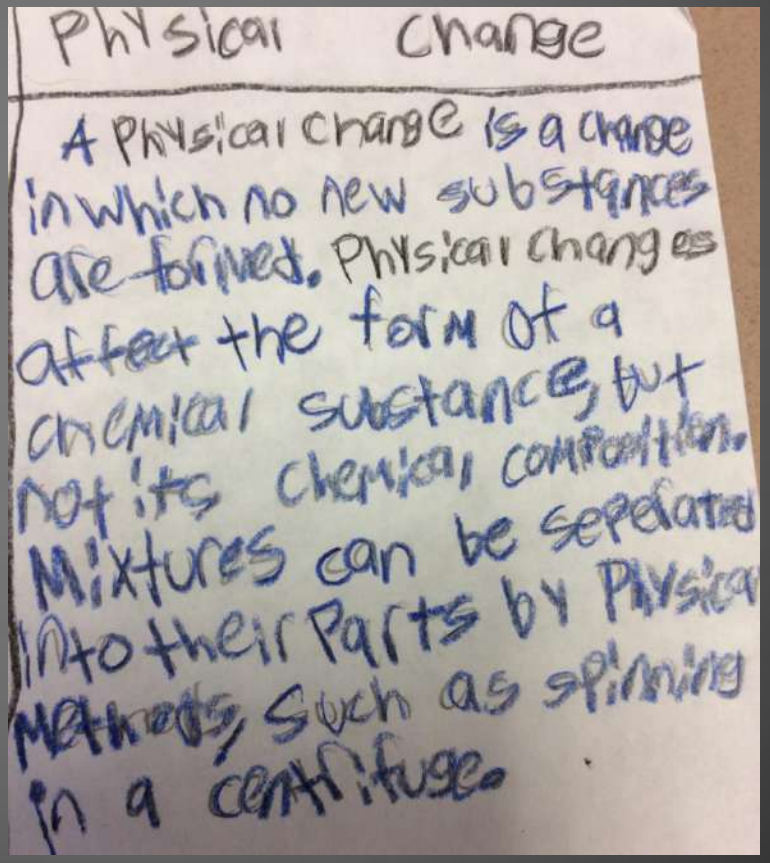
- A mixture is a physical combination of two or more substances that are blended together without forming a new substance. A compound is any substance that is formed by the chemical combination of two or more elements and acts like a single substance. The difference between a mixture and a compound is all components in a mixture do not chemically react, while the components in a compound do react, and their original properties are lost. Another difference is the separation of a mixture and its components is done by physical means while the separation of a compound and its components is done by a chemical reaction. A example of a mixture is pancake syrup. A example of a compound is water.

Homogeneous vs. Heterogeneous

- A homogeneous mixture is a mixture that has the same uniform appearance and composition throughout. A heterogeneous mixture is a mixture that composes of components that aren't uniform or that different properties. A homogeneous mixture has a uniform composition, while a heterogeneous doesn’t. A homogeneous mixture has particles that are uniformly distributed while an heterogeneous mixture isn’t uniformly distributed. Another difference between a heterogeneous mixture and homogeneous is you cannot identify the single components in a homogeneous mixture while in heterogeneous mixtures you can see the species being mixed. A example of a homogeneous mixture is perfume. A example of a heterogeneous mixture is cereal.

Chemical vs. Physical Change





Chemical Change Pic-Collage

Physical Change Pic-Collage

Why does this matter?

I know you are probably wondering what this is about. This project is all about heterogeneous and homogeneous mixtures and physical and chemical changes. When you drink water, that is a chemical change. After you have a soda in a can and you crush it that is a physical change. I hope you learned a lot from this PowerPoint. A job that people use this information is a Environmental Scientist. They use their findings to spread awareness about pollution, and how it can be presented. Another job is a Hydroligist. Their research helps other scientists, governments, and businesses understand what pollutants are affecting the water supply.

References

- Daniel, L., Hackett, J., Moyer, R., & Vasquez, J. (2006) *Science*. New
- York: Macmillan/McGraw-Hill.