

Chemistry: Soap Putty



MAIN IDEA

Get hands-on and a little messy as you investigate polymers, including what it is, what it is made of, and how we interact with them every day by creating your own soap putty.

SCIENCE BACKGROUND

Polymers are materials made of long, repeating chains of large molecules composed of carbon and hydrogen. Polymers are all around us and can be found in everyday materials that we use like rubber, glass, plastic, even our DNA. Materials like plastic water bottles, tires, and clothing are made up of artificial polymers, whereas DNA is considered a natural polymer.

Molecules are made up of atoms, the smallest unit of matter, and held together by chemical bonds. Think of water. Water is also known as H_2O . That means the water molecule has two hydrogen atoms and one oxygen atom.



MATERIALS

- Bowl
- Cornstarch – 1 cup
- Dish Soap – $\frac{1}{2}$ cup
- Measuring cup
- Spoon or Spatula

ACTIVITY PROCEDURE

Note: Color of soap putty will be dependent on the color of dish soap used.

STEP 1: Pour 1 cup of cornstarch into a bowl.

STEP 2: Pour $\frac{1}{2}$ cup of dish soap into the same bowl.

STEP 3: With a spoon, stir the mixture together till all ingredients are combined thoroughly.

STEP 4: Once all mixed, take it out of the bowl and have fun!

If putty is too dry, add more soap. If putty is too runny, add cornstarch.

Putty will last for several hours before it dries out.

EDUCATIONAL STANDARDS

Grade 1

Big Idea 1: The Practice of Science

SC.1.N.1.2 – Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color and motion, and compare their observations with others.

Grade 2

Big Idea 9: Changes in Matter

SC.2.P.9.1 – Investigate that materials can be altered to change some of their properties, but not all materials respond the same way to any one alteration.

ADDITIONAL RESOURCES

From DNA to Silly Putty, the diverse world of polymers

https://www.youtube.com/watch?v=UwRVj9rz2QQ&feature=emb_title

Putty Science: Family Fun with Polymers

<https://www.sciencebuddies.org/blog/putty-science-family-fun-with-polymers>

