**Fun Polymer Activity**

Learn the basics of polymers with this fun polymer activity and chemistry lesson plan. What makes a polymer special? What do we use them for? Answer these questions and much more.

**Introduction:**

What is a polymer?

A polymer is a chemical compound formed from long chains of the same molecule group. These chains repeat over and over.

Discuss the definition of polymers with the students:

* Plastics are polymers, what kind of examples of them can you think of in everyday life?
* What are some of the characteristics of polymers?
* What are some examples of things that are not polymers? (brick, glass, metals etc).

**Polymer Characteristics:**

* Polymers can be flexible, pliable and stretchy.
* When cross-links are formed in a polymer, its chains of molecules are connected in several places, producing a stronger and more elastic polymer.
* The plasticity of some polymers (thermoplastic) is affected by temperature. Some polymers occur naturally, as in the juice of rubber or aloe plants, and some are manmade.
* Polymers tend to be dense, strong, and flexible.  Some examples are plastic bottles, stryrofoams, latex paints and chewing gum.

**Polymer Activity:**

In this experiment, we are going to take a natural polymer (the latex in PVA, a type of white glue) and add borax to form crosslinks which will make the glue stronger.

Check out the [crazy putty experiment](https://www.sciencekids.co.nz/experiments/crazyputty.html) for instructions on this activity.

Get the students to play with the material, does it have the polymer characteristics that we talked about earlier: does it stretch? Is it flexible and durable? What happens when you pull it apart quickly? Do you notice the clean break of the molecules? What happens when you pull it apart slowly?