

# Polymer Putty

## What Do I Need?

### Ingredients:

- Borax (sodium tetraborate)
- Glue
- Water
- 3 plastic cups and spoons
- Food coloring

## What Do I Do?

### Prepare the Borax Solution:

Dissolve 4 tsp. borax powder in 2 liters of warm water.

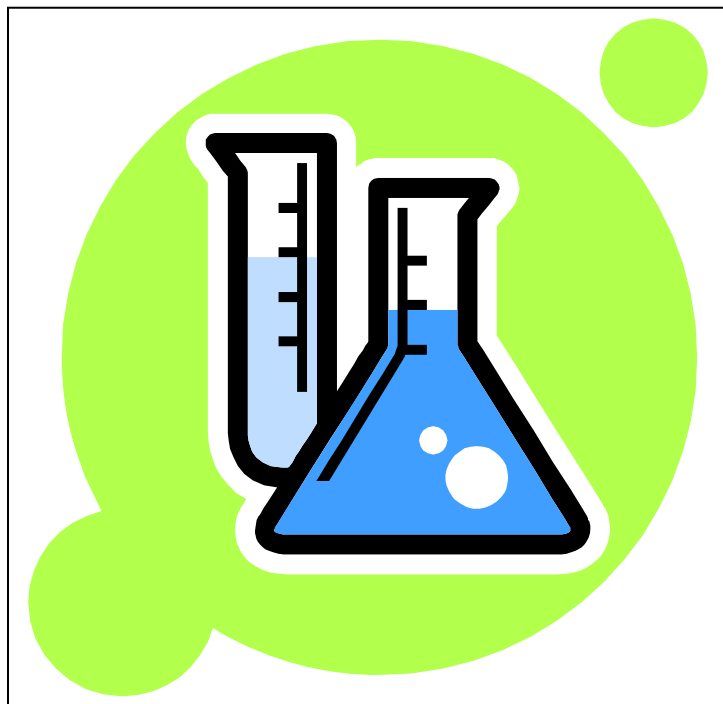
### Prepare Glue Solution:

Add equal amounts of glue and water together and mix well. Then add food coloring (optional). Try using clear glue and glitter for designer putty.

### To make the polymer putty:

Mix 2 parts glue solution and 1 part Borax solution and stir well.

Vary this experiment by using different amounts of Borax. 4 Tbsp. of Borax will yield a rubbery, bouncy putty, while 4 tsp. will produce a slimy, runny substance. Also observe how the consistency changes when you add salt. What other variables can you change?



## What's Going On?

- Polymers are long chains of molecules linked together.
- When the Borax molecules mix with the glue molecules, they form a polymer.
- Because there are water molecules trapped in the new polymer, it is slimy and thick.