



BREWING UP SOME STEAM

DIY SILLY PUTTY

If you liked "Shiny Pennies", try making your own Silly Putty with items you may have around your house!

Materials You Will Need:

- 2 T white glue
 - 2 T water
 - 1 drop food coloring
 - 1 t borax (such as 20 Mule Team)
- *Adult supervision required when handling borax**
- 1 cup warm water
 - glass cup
 - measuring spoons
 - spoon
 - sandwich size ziplock bag



DIRECTIONS

- 1) Mix the glue and water in the glass cup. Stir with a spoon until they are completely mixed.
- 2) Add one drop of food coloring to the mixture from step 1. Stir well to mix.
- 3) Make a borax solution by mixing 1 t. Borax into 1 cup warm water until completely dissolved.
- 4) Add 2 teaspoons of the Borax solution from step 3 into the glue-water solution from step 2. The mixture should start to form a blob. Keep stirring! If some of the glue-water liquid does not clump together with the rest of the blob, add a little more borax solution and stir some more.

Silly Putty Cont...

5) *Pour out the excess liquid and put the blob in a ziplock bag. Knead the bag for a couple of minutes.*

6) *Remove the blob and you've got homemade silly putty!*

Activity from: 'STEM Education on the Go'

Tips:

- Add glitter after step 1 for silly putty that sparkles.
- Be careful with the food coloring as it may stain fabrics and clothing.
- Your silly putty may get moldy or dirty after a few days. If this happens, throw it away and make a new batch!
- **Do not put your silly putty down the drain!**

Why does this work?

White glue is made up of a polymer called polyvinyl acetate.

When borax is added to the glue and water solution, the borate ion crosslinks the polymer chains, causing bridges between the polymer chains to form. This creates a material that is rubbery like silly putty.

