

Name \_\_\_\_\_

## **Chapter 23.3 - Polymer Activities**

### **Part A – Gak**

- 1.) Find and mark the 30ml level of your paper cup using water and a graduated cylinder and a marker. After marking the 30ml line of your cup, dump out the water.
- 2.) Pour Elmer's glue into the paper cup up to your marked line (30ml)
- 3.) Add a few drops of food coloring of your choice
- 4.) Slowly add 15ml of liquid starch to your cup while stirring with a wooden stir stick.
- 5.) Slowly add one spoonful of Calcium Carbonate to your cup while stirring.
- 6.) Continue to stir and work the glue for 2 – 3 minutes
- 7.) Remove from the cup and throw away the cup and stir stick

### **Part B - Slime**

- 1.) Pour 20ml of 4% Polyvinyl alcohol into a plastic cup using a graduated cylinder to measure.
- 2.) Add a drop or two of food coloring of your choice
- 3.) Slowly add 2ml of 4% Borax solution to your cup while stirring constantly.
- 4.) Continue stirring for a couple of minutes.
- 5.) Let sit for a couple on minutes and then remove from the cup, throwing away the cup and stir stick

### **Part C – Bouncy Ball**

- 1.) Prepare a borax solution by taking 2 tablespoons of warm water and mixing in 1 teaspoon of Borax in a cup.
- 2.) Put 2 tablespoons of Glue in a separate cup.
- 3.) Take 2 teaspoons of your Borax solution out of your first cup and pour it in your glue cup.
- 4.) Let the mixture sit for 20 seconds and then mix the ingredients together for at least 2 minutes with a wooden stir stick
- 5.) Next add a couple drops of food coloring to the mixture and mix

**\*\*Three tips for making bouncy balls with this recipe\*\***

- 1) You need to stir the glue and borax solution together REALLY well. After 2 minutes of stirring with a spoon, get your hands into the bowl and start mixing it with your fingertips (breaking the mixture apart and then squeezing it back together).
- 2) After mixing the ingredients, you might have separate 'clumps' of mixture in your bowl. Gather these together in your hands and start pressing them into each other with the palms of your hands. Don't just press the same two sides together, flip it around, turn it on its side, so that you're pressing it from all angles. After 5 minutes, you should have a single 'clump' of mixture.
- 3) Start rolling the mixture into a ball gently. If you're too rough, it can break apart into separate clumps and you must go back to Tip 2.