

## CHEM 110 Grocery List

(direct copy & paste from Activities)

### Activity 5: Density

two alka seltzer tablets

vegetable oil (or any other kind of oil which floats on water)

optional: food coloring

### Activity 7: Chemical Reactions

Baking soda (ordinary grocery store stuff); sodium bicarbonate,  $\text{NaHCO}_3$

Vinegar (ordinary grocery store stuff) a solution of acetic acid,  $\text{CH}_3\text{COOH}$

Hydrogen Peroxide (ordinary grocery store stuff), usually sold as a 3% solution,  $\text{H}_2\text{O}_2$

Liquid dish soap

Yeast

Matches (wooden matches work better than the usual matchbooks made from paper/cardboard)

Drinking Glasses

### Activity 10: Polymers

Polymer #1 - Gluep

White Elmer's Glue-All

Borax (found in laundry aisles in grocery stores)

Water

Food coloring (optional)

2 Ziploc bags (sandwich size)

Polymer #2-Oobleck

1 cup of cornstarch

Small bowl

### Activity 11: Milk Lab

- 1 cup of skim, lowfat or whole milk (cow milk probably works best but you can experiment with other kinds. Rice milk or evaporated milk, however, will not work. If you use powdered milk, it may take longer.) If you don't normally drink milk, consider buying a pint of milk for the experiment.
- 1-2 tablespoons of vinegar (acetic acid solution). Note: White vinegar or any kind of vinegar that has about 5% acidity should work fine.
- 1 tablespoon baking soda (sodium bicarbonate)
- $\frac{1}{2}$  cup of water
- measuring cup
- strainer
- spoon
- saucepan and stove

### **Activity 13: Intermolecular Forces (IMFs)**

#### ***Supplies needed:***

Two small glasses  
Water  
Isopropyl alcohol (rubbing alcohol)

Clean shallow dish, pan, skillet, or plate (that can hold water)  
Tap Water  
Pepper or cinnamon  
Bar of soap

2% milk (or you can use milk with a higher fat content)  
Small plate or saucer  
Food coloring  
Liquid dish soap

### **Activity 14: Exploring Acids and Bases**

- ✓ Safety Glasses
- ✓ A whole red cabbage
- ✓ Blender or food processor
- ✓ Strainer
- ✓ Vinegar
- ✓ Laundry ammonia
- ✓ Baking soda
- ✓ ¼ lb dry ice (buy at QFC seafood department the day of the experiment. Do not store in refrigerator, but in a Styrofoam container or cooler)
- ✓ Several clear drinking glasses
- ✓ Measuring spoons and cups
- ✓ Water from local stream/lake/pond etc
- ✓ Other household products (many listed in procedure)

### **Activity 15: Plastics and Recycling**

#### **Materials:**

- Various plastic containers found in the kitchen, garage or bathroom (can be full or empty) – Try to find several examples with the same code and some with different codes. (If you don't have any empty containers, try raiding your recycling bin or the one at school/in the office.)
- Vegetable oil
- Scissors