Laboratory #3 – DNA Extraction

Preparation:

DNA extraction buffer – Combine 900 mL of water, 50 mL of dishwashing detergent, and 2 teaspoons salt.

Materials:

Heavy duty Ziploc bag
1 strawberry
10 mL DNA extraction buffer
Cheesecloth
Funnel
50 mL vial / test tube
Glass rod or popsicle stick
20 mL ethanol

Procedure:

1. Place one strawberry in a Ziploc bag
2. Smash/grind up the strawberry using your fist and fingers for 2 minutes. (Careful not to break bag)
3. Add 10 mL of extraction buffer
4. Kneed/mush strawberry in the bag again for 1 minute
5. Assemble your filtration apparatus by placing the funnel in the test tube and draping the cheesecloth over the funnel.
6. Pour strawberry slurry into the filtration apparatus and let it drip directly into your test tube.
7. Slowly pour cold ethanol into the tube. Record your observations.
8. Dip the glass rod or popsicle stick into the tube where the strawberry extract and the ethanol layers come in contact with each other. Slowly lift up on the stirring rod. Record your observations.
Observations and Conclusions

1. What did you observe when the ethanol was added to the extraction mixture?

2. When you lifted the stirring rod a string formed.
   a. What is this string of material?
   b. What type of substances combined to form the string of material?
   c. Is the string of material a polymer?
   d. What type of reaction produced the string of material?