

Name _____

Date _____

DNA Extraction

Pre-Lab:

DNA-

Lab Procedure:

Materials:

Ziploc (freezer) bag
Strawberries
Dishwashing soap
Salt
Funnel
Coffee filter
Large vial/test tube (~50 mL)
Cold ethanol
Popsicle stick

Procedure:

1. Place 2 strawberries into a freezer bag. Close the bag and using your fingers, mash the strawberries into a slurry for about 1 minute.
2. Add 2 teaspoons of water, 1 teaspoon of dishwashing soap, and 1 pinch of salt into the freezer bag. Mash the mixture together for 1 minute.
3. Place the coffee filter inside the funnel and place the funnel over your vial/test tube. The apparatus should be set up such that when the mixture is placed on the coffee filter, the filtered liquid will run down the funnel into the vial/test tube.
4. Slowly pour the mixture into the coffee filter. Wait for 5 minutes as the liquid is filtered and drips into the vial/test tube.
5. Now add about 10 mL of cold ethanol into your vial/test tube. Record what happens on your worksheet!

6. By sticking a popsicle stick into the vial/test tube, you should be able to scoop out the isolated strawberry DNA from the water-ethanol interface. Record the texture of the DNA on your worksheet.

Observations:

Conclusions

1. What purpose do the added salt and dishwashing soap serve?
2. Why were we able to see the DNA only after the cold ethanol was added? Is it important for the ethanol to be cold?
3. Do you think this procedure will work with other fruit such as blueberries and bananas?