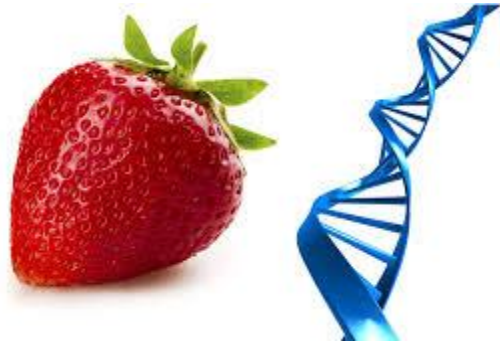


## Experiment 1: Isolating Strawberry DNA!

You can actually see DNA at home using some simple ingredients!

### Materials:

- Plastic sandwich bag
- 4 frozen strawberries
- Tall narrow glass (like a test tube if possible)
- 4 single layer sheets of cheese cloth
- Wooden stir stick
- Rubbing alcohol (cold)
- Glass or beaker
- Rubber band
- Dish detergent
- Table salt
- Water
- Measuring cups



### Method:

1. Make the extraction buffer: mix 25ml (1/8 cup) dish detergent, 4 g (1/2 tsp) table salt, ¼ liter (half of a 500 mL soda bottle) together in a glass. This breaks up the cell membranes and proteins so that we can isolate the DNA.
2. Put the strawberries in the plastic bag and homogenize by squashing (more squashing the better!)
3. Add 20 mL (4 tbsp) of the extraction buffer and squash for 2 more minutes.
4. Place cheese cloth over a glass and fasten with a rubber band (or just hold it) and slowly pour the squished strawberry through it. It is not fast, so be patient!
5. Collect around 10 mL (about 2 tsp) of the flow through liquid (called eluate), put into your thin tall glass.
6. Add equal volume of ice cold rubbing alcohol.
7. You will see bubbly mucus like material at the interface of the red strawberry layer and the clear rubbing alcohol layer – that is the DNA! You can take your wooden stick and actually pick it up!

