In this experiment we are going to extract DNA from a strawberry.

We will need:

A plastic sealable bag.

Teaspoons.

Sodium chloride.

Detergent.

Two beakers.

Cold water.

A clamp stand.

A funnel and filter paper.

A boiling tube.

Cold ethanol.

One large strawberry.

A dropper and a stirring rod.

This is an experiment that can also be a home practical, replacing the beakers with plastic cups, the boiling tube with a narrow glass and using a coffee filter and elastic band as your filter.

First, we place the whole strawberry into the sealable bag.

Add half a teaspoon of sodium chloride into the bag and then 2 teaspoons of the detergent.

Next pour in the cold water and then seal the bag, removing as much air as possible.

Then begin to firmly squash the strawberry with your fingers.

The solution in the bag will help to extract the strawberry DNA.

The salt will denature the proteins which form part of the strawberry cell membranes, causing disruption in the cell membrane.

The detergent will also damage the cell membranes as they are made up of lipids or fats, which will be dissolved by the soap.

Just like doing the dishes, the soap melts away the grease and fat.

Keep squashing the strawberry in the bag for a few minutes, until there are no big chunks left.

This will let the soap and salt extract the DNA from the cells.

When ready, cut a corner off the bottom of the bag and pour the liquid through the filter paper and filter funnel.

Collect the filtrate in the container. Leave the liquid to filter through and when you have enough, pour it into a boiling tube.

The final step in this experiment is to separate the DNA.

Carefully add the ice cold ethanol into the boiling tube so that it forms a layer on top of the filtered strawberry.

This layer contains the DNA.

The DNA will precipitate out at the interface.

This can be seen as a stringy white stuff on the surface.

Then take a toothpick or your stirring rod and pull the DNA up.

It will look a bit like sticky snot.

Those thin strands of white are hundreds of long strands of DNA.