

Extracting DNA from strawberries!

See what DNA looks like by extracting it from strawberries using items you can find around your house! You will need **an adult to help you** with the cutting, heating and alcohol steps!

Share your DNA extraction photos with us!!
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You will need...

- **Adult help!**
- Strawberries
- Knife (**adult step**)
- Seal-easy bag
- Teaspoon
- Salt
- Washing up liquid
- Additional water
- Bowl with hot water, about 60°C (**adult step**)
- Funnel (optional)
- Kitchen paper
- Glass
- Fridge/Freezer
- Vodka or Gin, chilled in the freezer for 10 minutes (**adult step**)



What to do...

1. **Ask an adult** to cut up 4-5 strawberries, then place them into the seal-easy bag and squish the fruit until it becomes smooth.
2. Add a teaspoon of salt and a teaspoon of washing up liquid.



3. Squish the strawberry puree and salt/washing up liquid together. Add some water to make the mix runny – you should be able to pour it!

4. **Ask an adult** to place the sealed bag in a bowl of hot water (about 60 °C) for five minutes. The temperature needs to be hotter than hand temperature – so be very careful not to touch it!



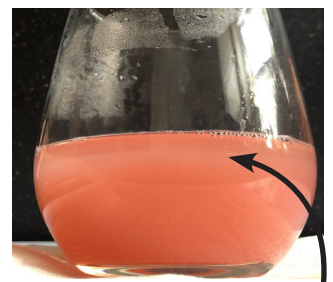
5. While you wait, set up your kitchen towel in the funnel, or make it into a funnel shape. Then put this on top of your glass.

6. After 5 minutes, pour your strawberry mix into the funnel or funnel shape with kitchen towel. The big bits of strawberry will stay in the kitchen towel, but the runny liquid will drip into your glass. The runny liquid bit is called the filtrate – this is the bit you need.



7. Place your glass with the filtrate into the fridge or freezer for 5-10 minutes, to cool it down. **Ask an adult** to place the vodka/gin in the freezer for 10 minutes too.

8. Once the filtrate is cool, take it out of the fridge or freezer. Keeping the glass at an angle, **ask an adult** to gently pour a small amount of the ice-cold vodka/gin onto the top of the filtrate.



The white misty area is DNA!

9. You will see white strands with bubbles in them at the line between the filtrate (the drips from the squished strawberries) and the cold vodka/gin. This is strawberry DNA!!

