Extracting DNA

30 minutes

Materials to place on the table

For each group of **four pupils** you will require:

- Extracting DNA instruction sheet
- 3 strawberries (no stalk or leaves)
- A zip-lock sandwich bag or tie-able freezer bag
- 4 small clear disposable glasses (approx. 25-30ml)
- A sieve
- A kitchen jug
- A spoon
- Sheet of kitchen roll
- 4 cocktail sticks

Materials to be measured

Measure out into separate plastic cups for each group of **four pupils**:

- 90ml of water
- 1 tablespoon of washing up liquid
- ½ teaspoon of table salt

Measure out into separate plastic cups for **each pupil**:

- 10ml cold alcohol (leave in freezer the night before running the practical, and keep cold until required at the end of the experiment)

Please be aware that this activity uses small amounts of alcohol. Please consult your school's own health and safety policy before conducting this activity.

Begin the activity by discussing with your pupils that DNA contains the instructions for making all living things and for scientists to be able to study it they have to extract it from cells.

Explain to the class that they will be extracting DNA from strawberries and they must follow the instructions carefully.

Set up each table with the equipment needed for the experiments outlined in the teacher's guide. Provide each group with an instruction sheet.

During the experiment we recommend demonstrating each step to the pupils so they are clear about what to do. The teacher's guide is designed to support you through each step.

Don't forget to get photographs or videos of the pupils with their successful DNA extraction!

At the end of the activity the DNA mixtures can be disposed in a regular sink and normal waste disposal.