

Everyday experimenting for secondary schools: Extracting DNA from Kiwis!



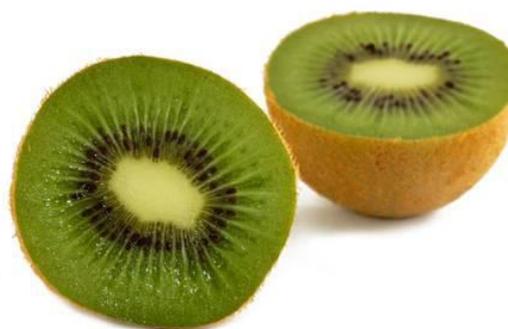
DNA is a special chemical found in the cells of every living thing. It's special because it carries the instructions for making each living thing. DNA is a very long molecule but it's so thin that you can't normally see it. In this experiment we will show you how to extract DNA from a kiwi fruit.

What you need

- A kiwi fruit
- A knife, fork and chopping board (please be careful)
- 5ml of washing up liquid
- A teaspoon of salt
- Tapwater and hot water
- 3 glasses
- A fine sieve or coffee filter paper
- A large basin
- Ice cold alcohol! (white spirits or rum will work)
- An adult (for handling the alcohol and to help out and maybe even do the washing up)

What to do

1. Put the alcohol in the freezer – you'll need it really cold later
2. Put the kettle on – you'll need the hot water shortly
3. Peel the kiwi fruit and chop in to small pieces
4. Mash the kiwi with a fork and put it in a glass
5. Add the salt, washing up liquid and water together in another glass and mix well
6. In the basin pour some hot water and an equal amount of cold water - this should make a "water bath" of around 60°C



7. Add the mashed kiwi to the water, salt & washing up liquid mixture and put it in the water bath – leave for 15 minutes
8. Remove from the water bath and **filter** some of the mixture through a fine sieve or the coffee filter paper into another glass
9. Finally, get the adult to pour the ice-cold alcohol slowly down the side of the glass
10. Watch as the DNA (the stringy slimy looking white stuff) floats to the top where the ice-cold alcohol is

What has happened?

You have just extracted the DNA from billions of cells in the kiwi fruit!

