

# Classroom Activities

## 10 Big Questions - How do we feed the world sustainably?\*

### Wheat germ extraction:

You will need:

- Raw wheat germ
- Dishwashing detergent
- Meat tenderizer
- Baking soda
- Plastic cup
- Methylated spirits
- Barbecue skewer

### Method:

Half fill a plastic cup with water and add 1 tablespoon of raw wheat germ. Add 1 ml of dishwashing detergent and stir gently for 1 minute. Add 1 teaspoon of meat tenderiser and 1 teaspoon of baking soda. Gently mix and let settle for 2 minutes.

Under adult supervision, slowly drizzle 10 mls of methylated spirits down the side of the cup. Make sure you read the methylated spirits bottle for safety instructions. Do this carefully so a layer forms on top of the solution, you should see white threads of DNA between the layers. Twirl the white threads around a barbecue skewer to see if you can lift the DNA out.

This classroom activity was suggested by Rhiannon Schilling –PhD student in the Australian Centre for Plant Functional Genomics, School of Agriculture, Food and Wine, University of Adelaide.

\* To find out more about the 10 Big Questions, go to:

<http://www.sciences.adelaide.edu.au/learning-teaching/10bq/>

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