# Cover

# Agriculture in Education:

# an educational resource for the Year 7–8 Design and Technologies

**PowerPoint Resource:**

**Technology, Design and Innovation in Australia**

**Slide 1**

**Setting the scene: Overview of Technology and Design in Agriculture**

**What is technology? Why is it important?**

Technology is the practical application of science.

It involves the use of tools and machines, materials, techniques and power sources to make people’s lives easier and more productive.

People in all phases of agribusiness and agriculture – farmers, food processors and many others use technology to produce food, fibre and other products efficiently and sustainably.

Some technology is used everyday – iPhones, tractors, scanners and harvesters.

But some technology is not visible such as plant and animal breeding techniques and sustainable technology.

Image included: Combine Harvester in a wheat field

**Slide 2**

# Setting the scene: Overview of Technology and Design in Agriculture

**What is technology? Why is it important?**

Where do you get your food?

• Where does your food grow?

• How does your food get from the farm to the supermarket?

• What does a farmer do to help the food grow?

• What kinds of things can cause problems on a farm?

Image included: Combine Harvester in a wheat field

**Slide 3**

## Setting the scene: Overview of Technology and Design in Agriculture

**How farming and agriculture has changed over time in Australia.**

You are to consider **the Technology Cards**

You may have seen these before.

You are to prepare notes – that is 2-3 sentences which will describe:

* each item and its related activity for example irrigation pivots are critical to enabling farmers water greater areas of land = to increase crop yields;
* include dates or century in which the item of technology may have been
  + invented and or
  + introduced into Australia.
* An interesting point will be that some inventions may be hard to have a clear date for example firestick “farming” used by First Nations people is believed to have existed for thousands of years prior to the arrival of Europeans.

Now lets discuss what you have learnt about the changes in technology in agriculture in Australia

Image included: Cropduster flying over crops

## Slide 4

## Work Task 1: Technology used on farms = Smart farming

**Smart Farming**

In pairs or groups you are going to research all the different types of technologies farmers are now using to make sure their farms are becoming more sustainable.

You are then going to create a “Word Wall”

You may wish to begin by viewing – from the ABC Landline Program of 28 July 2013   
(17 minutes in length)

We will then discuss:

• What are the advantages of these technologies

• What are the disadvantages?

Image included: Wheat field stretching out into the distance

**Slide 5**

**Work Task 3a: Why is Technology important in Agriculture?**

**Why is Technology important in Agriculture?**

Feeding the world’s growing population

• Sustainable practices and the environment

• Better value for money

• More efficient

• Solves these problems and more..

• Social media

Image included: Woman scientist with gloves looking at a glass jar with liquid in it

**Slide 6**

**Work Task 3b: Careers Related to Agricultural Technology**

There are a number of careers related to agricultural technology.

Have students research one of the following careers and explain their importance to technology and agriculture

**Career Images Included**

Entomologist person in a field with a net collecting plants

Chemist woman scientist looking at a glass jar

Geneticist test tubes

Food scientist range of coloured vegetables and fruit

Agronomist wheat field