

# The Potato Story

## National Curriculum Links

All lesson plans link to the National Curriculum for Science in England, Wales, Northern Ireland and Scotland. Specific Curriculum Links are as follows:

- Sc 1 Scientific Enquiry
- Sc 2 Life Processes and Living Things
- Science – QCA Unit 3B Helping Plants Grow Well  
QCA Unit 5B Lifecycles

## Key Learning Objectives

**Children will learn that:**

- Plants need healthy roots, leaves and stem to grow well.
- Plants need light and water for healthy growth.
- Flowering plants reproduce.
- The lifecycle of flowering plants includes pollination, fertilisation, seed production, seed dispersal and germination.
- Plants can provide food for us and some plants are grown for this.

## Differentiation

More able children could plan a 'Growing potatoes' investigation in detail, considering what equipment they will need, what questions they want to find the answer to, how they will make it a fair test, what variables to change and what data needs to be collected.

## Some Useful Websites

<http://www.food.gov.uk/healthiereating/>

<http://www.britishpotatoes.co.uk/>

<http://www.potatoesforschools.org.uk/>

<http://www.yearoffoodandfarming.org.uk>

<http://www.face-online.org.uk>

## Lesson Plan and Teachers' Notes

In this Module you will find a number of different activities for Years 3 & 4 and 5 & 6 to support and reinforce the work the children have done up to now.

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## Introduction (5 – 10 minutes)

You may want to remind the children of the work covered so far, and in some cases revisit the IWB presentations or activities from the previous modules. It may also be a good idea at this stage to look at the questions the children wrote in the first session to see if any more have been answered.

## Activities (30 – 40 minutes)

The activities in this module will cover the following curriculum links and key learning objectives.

### The Lifecycle of the Potato

Years 3 & 4 – Learning Objectives: To know the basic stages in the lifecycle of a plant.

Looking at the potato in particular, children have to order the pictures of the plants, in an interactive and fun way. This activity can be done as a whole class on the IWB, individually or printed off as a 'paper activity'.

### Match the Word to the Definition

Years 5 & 6 – Learning Objectives: To know the different stages in the lifecycle of a plant and understand what they mean.

Depending on where the children are at in their learning, it may be an idea to show the IWB presentation from Module 1 about the lifecycles of a flowering plant again to refresh their ideas. This activity then asks the children to match different words relating to lifecycles to their meanings. Again, this activity can be done as a whole class on the IWB, individually or printed off as a paper activity.

### Growing Your Own Potatoes

All Year Groups - Learning Objectives: To understand that it is important to test ideas using evidence from observation and measurement.

**This activity covers lots of points from NC Sc1 – Scientific Enquiry.**

Get the children to plan what they want to find out from growing their own potatoes – for example:

- Will too much water harm my plant?
- Are the leaves important to my plant?
- What will happen if I put one plant in a smaller plant pot than the other?

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Encourage the children to make a fair test or comparison by changing one factor and observing or measuring the effect while keeping other factors the same. By growing their own potatoes, the children will be given the opportunity to use simple equipment and materials appropriately. Obviously, it would be great for the children to actually grow a successful batch of potatoes at the end, so some of the plants would have to be grown fully. This will reinforce for the children what a healthy plant needs to grow.

This would also be a good 'real life situation' to collect data in the form of how large or heavy the potatoes have grown and present it in a bar chart or graph.

Check out the website [www.potatoesforschools.org.uk](http://www.potatoesforschools.org.uk) for extra tips and suggestions about how to grow your own potatoes in the classroom.

**Also, if you did not do it in Module 2, now would be a great time to tell the children about potato growing in the UK.**

- **In Great Britain we eat an average of 105 kg of potatoes per person, per year which means that potatoes are in great demand right through the year.**
- **There are 3 main seasons when you can plant potatoes – the main times are January, April and September and it takes about 8 weeks for the potato seed to reach harvesting time – usually around when the plant is flowering.**
- **Not all potatoes are suitable for growing a crop of new potatoes from – you couldn't just use the odd looking potato that has fallen down the back of the cupboard! This is because there is a risk you will be planting a seed that may not be perfectly healthy and you may end up with a disappointing crop. You can need to ensure you get specially grown seed potatoes to grow the tastiest crop.**
- **The main areas for growing potatoes in the UK are East Anglia, Lincolnshire and Yorkshire. There are over 4,000 different varieties of potato!**

## **Extension Ideas:**

### **VAK (Visual Auditory Kinesthetic) Opportunities**

Allowing the children to grow their own potatoes will provide a real life situation for some of the concepts learnt here.

### **Multiple Choice Quiz**

Because the questions get progressively harder, this activity would be appropriate for all year groups as a way of assessing understanding, extending more able children or just having fun!