HOW DOES YOUR GARDEN GROW?

LESSON 7: WHERE DO NEW PLANTS COME FROM?

Key vocabulary:
seed, germination, seedling, growth, mature plant, flowering, pollination, seed formation, fruit

Resources:
Apple, sharp knife (teacher use only), scissors, glue

LESSON SUMMARY:

In this lesson children present the main stages in the life cycle of a flowering plant as a sequenced diagram. By the end of this lesson children will be able to name the stages in the life cycle of a flowering plant and the order in which they occur.

National curriculum links:

Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Working scientifically links:

Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables

Learning intention:

To name the main stages of a flowering plant's life cycle and present them in a sequenced diagram

Success criteria:

- I can name the main stages in the life cycle of a flowering plant.
- I can put the stages in order.
- I can present them in a sequenced diagram.

Scientific enquiry type:

Using secondary sources of information

EXPLORE

Read the poem 'Growing Apples' by Michael Rosen (Slideshow 1). Pause before the girl is about to answer and ask children what they think she is going to say. Show the children an apple.

Ask: *Where did it come from? How can I get more apples from it?* Cut the apple open to show the seeds. Establish that the seeds will grow into an apple tree that will produce more apples.

Use slide 2 (Slideshow 1) to remind children about familiar animal life cycles. Use slide 3 to record what children already know about the life cycle of an apple tree. Brainstorm together what words they will need to label the diagram.

Discuss what happens when a seed germinates (revision from KS1).

Ask: *Why does the root grow first? Why does the plant not need leaves straight away?* (The seed provides food for the germinating plant.) *What does the seed need in order to germinate?*

ENQUIRE:

Watch Video 1. Focus on the vocabulary or the life cycle stages that the children were least confident about in the introductory activity.

Explain to the children that their challenge is to present the life cycle of a plant in a diagram. The first two challenges are differentiated by the support provided. In the third challenge children apply what they have learned about apple trees to a different flowering plant.

Challenge 1 Children complete the life cycle of an apple tree.

Using Resource sheet 1, children sequence and complete the stages of the life cycle of an apple tree. Children cut out and stick the vocabulary into the correct places.

Challenge 2 Children sequence and complete the life cycle of an apple tree.

Using resource sheet 2, children will sequence and complete the life cycle of an apple tree. They annotate their diagram to add any other information they remember from the video.

Challenge 3 Children sequence and complete the life cycle of a runner bean.

Using Resource sheet 2, children use their knowledge of the life cycle of an apple tree together with information provided to sequence and complete the life cycle of a runner bean.

Ask: *Where would you put the label 'fruit'?*

Key information:
The fruit is the part of the plant that grows from the ovary and contains the seeds, so the bean pod is the fruit of the bean plants. Fruit is a scientific term for a plant part; vegetable is a category of food.

REFLECT AND REVIEW:

Ask children to share their life cycle diagrams. Compare diagrams for the apple tree and the runner bean.

Ask: *What is the same about them? What is different? How long do you think each life cycle takes to complete?*

EVIDENCE OF LEARNING:

Look at children's completed life cycle diagrams. Look and listen carefully as they compare their diagrams with others.

Do the children understand the convention of a life cycle diagram? Can they name the main stages of the life cycle of a specified plant? Can they sequence them on the diagram? Can they label them correctly? Can they recognise that this is a general sequence that applies to all flowering plants? Can they add further information? Do they recognise that plant life cycles (like animal ones) are of different lengths?