

# Y5 – Living things & their habitats – How do living things reproduce and why is this important in a life cycle? Lesson 3

Lesson	3 of 6	National Curriculum links		Key lesson question		What are the stages in a life cycle of a plant?
Learning objective		<p><b>NC Year 5:</b> <b>Children will:</b></p> <ul style="list-style-type: none"><li>describe the life process of reproduction in some plants and animals</li></ul> <p><b>Working scientifically:</b></p> <ul style="list-style-type: none"><li>using test results to make predictions to set up further comparative and fair tests</li><li>planning different types of scientific enquiries to answer questions, including recognising and controlling variables</li></ul>			Resources	
I can explain the stages in the life cycle of a flowering plant.					<ul style="list-style-type: none"><li>lesson presentation (PPT)</li><li>activity worksheet</li><li>plant life cycle photo cards</li><li>stop and jot</li><li>practical activity sheet and sorting cards</li><li>focus assessment sheet</li></ul>	
Teaching input						
<ul style="list-style-type: none"><li><b>Scientific enquiry types and skills</b> – Review the ‘scientific enquiry types’ and ‘working scientifically skills’ the children will use in this lesson, highlighted on the slide.</li><li><b>How do living things reproduce, and why is this important in a life cycle?</b> – The slide shows the lesson questions the children will answer in this unit. The current lesson’s question is highlighted on the slide.</li><li><b>Key vocabulary for this lesson</b> – Go through the key vocabulary for this lesson and their definitions. Have any of the children heard these words before? Did they already know their meanings?</li><li><b>Testing</b> – Introduce Earle. Choose a child to read what Earle says about the scientific enquiry type, ‘Testing’. Go through the keyword and its definition in the ‘New word alert!’ box.</li><li><b>Word detective</b> – Read through the information on the slide.</li><li><b>Let’s discuss</b> – The children are to discuss the question on the slide with their learning partners, in groups or as a class. There is a sentence starter and keywords on the slide to help them. Take feedback from the class before the answers are revealed on the following slide.</li><li><b>The life cycle of a dandelion</b> – The children are to use the photo cards on their tables (in the lesson pack) and sequence them to show the life cycle of a dandelion plant with their learning partners, in groups or as a class. Children need to use their understanding of plant reproduction from the last two lessons and say what is happening at each stage of the life cycle. Take feedback from the class before the answers are revealed on the following slide.</li><li><b>The stages of a life cycle</b> – The children are to discuss the question on the slide with their learning partners, in groups or as a class. Take feedback from the class before the answers are revealed on the following slide.</li><li><b>The life cycle of a coconut</b> – The children are to use the photo cards on their tables (in the lesson pack) and sequence them to show the life cycle of a coconut with their learning partners, in groups or as a class. Take feedback from the class before the answers are revealed on the following slide.</li><li><b>The stages of a life cycle</b> – Read through the information on the slide. This slide shows five stages of the coconut life cycle.</li><li><b>Similarities and differences</b> – The children are to compare the life cycles of a dandelion and a coconut and discuss what is the same and what is different with their learning partners, in groups or as a class. They should be able to make links between the life cycles of both flowering plants, but also recognise that some aspects differ. Consider the time it takes for the plants to mature, how they might be pollinated and how the seeds are dispersed. Take feedback from the class before the answers are revealed on the following slide.</li><li><b>Let’s watch</b> – The children are to watch the video about all the different ways seeds can be dispersed via the link on the slide.</li><li><b>True or false activity</b> – The children are to read the statements on the slide with their learning partners, in groups or as a class, and decide whether each is true or false. Take feedback from the class before the answers are revealed on the following slide.</li><li><b>Stop and jot</b> – The children are to complete the labels on their stop and jot worksheets to show the five key stages in the life cycle of a flowering plant. Alternatively, children could draw and label a life cycle for a flowering plant of their choice.</li><li><b>Germinating seeds</b> – Read through the information on the slide.</li><li><b>Seeds</b> – Read through the information on the slide.</li><li><b>Let’s get ready</b> – The children are to get the equipment they need for the investigation ready. On the following slide, read through the experiment steps so the children understand what they need to do. Give them an opportunity to ask questions and check their understanding.</li><li><b>Let’s discuss</b> – Read through the information on the slide. The children are to discuss the question on the slide with their learning partners, in groups or as a class. Take feedback from the class. They learn that this will be a comparative test rather than a fair test.</li><li><b>Predictions</b> – Read through the information on the slide. The children are to discuss the questions on the slide with their learning partners, in groups or as a class. There is a sentence starter and a list of things to consider on the slide to help them. Children should make predictions about which seed they think might germinate first based on either the seeds’ appearance or their familiarity with having grown certain seeds before. Take feedback from the class.</li><li><b>Recording your results</b> – Read through the information on the slide.</li><li><b>Activity</b> – The children are to start their investigations by following the instructions and recording their results on their activity worksheets. There is an investigation sheet with a method to follow and an additional scaffold sheet, which could be used if support is needed to record results.</li><li><b>Challenge</b> – The children are to discuss the question on the slide with their learning partners, in groups or as a class. There are sentence starters on the slide to help them. Take feedback from the class before the answers are revealed on the following slide.</li></ul>						
Main activity				Challenge		
The main activity for the lesson is an investigation to see which seed will germinate first. Any seeds can be used, including those found around the school, although the suggested seeds should germinate quickly in a warm environment at any time of year. Encourage children to make and record predictions based on what they know: Have they ever grown cress before? Do they think size is important in how long it takes a seed to germinate? They should control variables in the investigation independently, recognising that they are conducting comparative testing rather than a fair test.				The challenge question asks children to discuss why seeds need to be dispersed away from the parent plant before they germinate. They should recognise that growing close to the parent would lead to competition for water, nutrients and space. Seeds that are dispersed may find more favorable conditions to grow away from the parent plant.		
Cumulative quiz questions		Self-assessment		Key vocabulary		
7. Put these stages of the life cycle of a plant into order from when a seed first starts to grow: pollination, fertilisation, seed dispersal, germination, growth, flowering		<ul style="list-style-type: none"><li>I can describe the life cycles of flowering plants.</li><li>I can compare and contrast life cycles of different plants.</li><li>I know why seed dispersal is important.</li><li>I can investigate germination of different seeds.</li></ul>		variable – something that can change		
8. Which stage of a plant life cycle depends on wind or animals? Multiple choice. Tick all relevant answers.				disperse – to spread out or move away		
9. Match the words with the description.				pollination – this is when the pollen is transferred from the anther to the stigma		
				fertilisation – happens when the pollen reaches the ovary and seeds begin to develop		