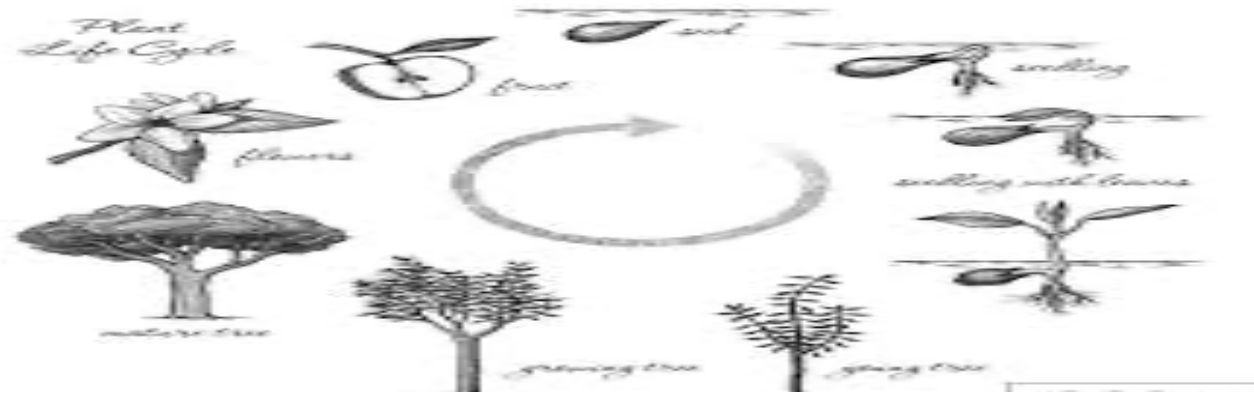




## Topic Title: The Circle of Life Year 5



### Skills Taught:

- Describe the changes as humans develop to old age (including puberty and gestation).
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- Describe the life process of reproduction in some plants and animals.
- Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- Identify scientific evidence that has been used to support or refute ideas or arguments.

### Immersion Activity/Provocation:

### Key question?

Why is the circle of life so important?

### Big Questions:

How do we change as we grow older?

What characteristics to humans have that are the same?

What characteristics to certain animals have that are the same?

How do plants reproduce?

What is pollination?

What are the differences in the life cycles of a mammal, an amphibian, an insect and a bird?

Topic Title: The Circle of Life

Enquiry Question: Why is the circle of life so important?

Focus Texts:



### Challenge for All:

	<u>Skills and Knowledge</u>
Some children will:	<ul style="list-style-type: none"><li>• Ask simple questions.</li><li>• Observe closely, using simple equipment.</li><li>• Perform simple tests.</li><li>• Identify and classify.</li><li>• Use observations and ideas to suggest answers to questions.</li><li>• Gather and record data to help in answering questions.</li><li>• Describe the changes as humans develop to old age.</li><li>• Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li><li>• Recognise that living things can be grouped in a variety of ways.</li><li>• Explore and use classification keys.</li></ul>
Most children will:	<ul style="list-style-type: none"><li>• Ask relevant questions.</li><li>• Set up simple, practical enquiries and comparative and fair tests.</li><li>• Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.</li><li>• Gather, record, classify and present data in a variety of ways to help in answering questions.</li><li>• Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.</li><li>• Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li><li>• Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.</li><li>• Identify differences, similarities or changes related to simple, scientific ideas and processes.</li><li>• Use straightforward, scientific evidence to answer questions or to support their findings.</li><li>• Describe the changes as humans develop to old age.</li><li>• Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li><li>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li><li>• Describe the life process of reproduction in some plants and animals.</li><li>• Describe how living things are classified into broad groups according to common observable characteristics.</li><li>• Give reasons for classifying plants and animals based on specific characteristics.</li></ul>
Some children will progress further and will:	<ul style="list-style-type: none"><li>• Plan enquiries, including recognising and controlling variables where necessary. Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work.</li><li>• Take measurements, using a range of scientific equipment, with increasing accuracy and precision.</li></ul>

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|  | <ul style="list-style-type: none"><li>• Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models.</li><li>• Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions.</li><li>• Present findings in written form, displays and other presentations.</li><li>• Use test results to make predictions to set up further comparative and fair tests.</li><li>• Use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.</li><li>• Describe the changes as humans develop to old age.</li><li>• Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li><li>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li><li>• Describe the life process of reproduction in some plants and animals.</li><li>• Describe how living things are classified into broad groups according to common observable characteristics.</li><li>• Give reasons for classifying plants and animals based on specific characteristics.</li></ul> |
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Celebration of knowledge and skills gained (opportunities for assessment):

Class displays of life cycles of different animals and plants.

### Enrichment/Outdoor Learning:

Pupils should draw a timeline to indicate stages in the growth and development of humans. They should learn about the changes experienced in puberty.

Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.

<https://www.stem.org.uk/resources/elibrary/resource/459272/life-cycles>

<https://www.stem.org.uk/resources/elibrary/resource/36134/life-cycles>

<https://www.stem.org.uk/resources/elibrary/resource/34862/life-cycles-activity-pack>

<https://www.stem.org.uk/resources/elibrary/resource/459604/illustrating-life-cycles>

### Previously....(Links to prior learning)

Pupils should build on their learning about grouping living things in year 4 by looking at the classification system in more detail. They should be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided. Through direct observations where possible, they should classify animals into commonly found invertebrates (such as insects, spiders, snails, worms) and vertebrates (fish, amphibians, reptiles, birds and mammals). They should discuss reasons why living things are placed in one group and not another.

### Key Vocabulary:

reproduce reproduction stamen stigma sepal petal  
ovary pollen style

germinate germination fertilise fertilisation pollinate  
pollination disperse dispersal

life cycle babyhood childhood adolescence adulthood  
puberty

### Cross-curricular links:

English – Information texts, biographical writing about famous scientists, creating questions

Maths – Data handling including using different diagrams to sort information

History – How what we know has changed over history, how scientists have built up on previous work

PSHE – SRE - Puberty