


Learning Journey	Science	Animals including Humans (Sexual and asexual reproduction.)	Year 5 Summer 1&2	
------------------	---------	---	----------------------	---

Building on prior learning	Theme overview	Preparing for future learning	Vocabulary
In Y4, children will have learned how animals need a variety of foods to help them grow and survive and that different animals require different foods to survive. Humans require a balanced diet to remain healthy. They began to understand how humans digest food.	<ul style="list-style-type: none"> •Mammals, amphibians, insects and birds have different life cycles •Lifecycles vary in time depending on the species of animal- it can be as short as just a few weeks for insects, to up to 200 years for sea urchins. Larger animals often have longer life cycles but not always. •All animal life cycles begin with growth and development followed by reproduction 	In Y6 children will learn about how evolution happened. They will look at how fossils provide evidence for evolution. They will also learn about different life cycles and why they are different.	<ul style="list-style-type: none"> • Mammal • Amphibian • Insect • Bird • Reproduce • Life cycle • Growth • Development • Birth • Adolescence • Gestation • metamorphosis

NC coverage and HWJS skills development	Knowledge organisers
<p><u>National curriculum coverage for Science</u></p> <ul style="list-style-type: none"> - 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. - describe the changes as humans develop to old age. - 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. <p><u>HWJS skills development</u> Details of the skills that will be taught within the unit. These should match up with the skills progression documentation</p>	<p>This contains the key knowledge that the children will be taught during the unit of work – this should match up with the knowledge organiser overview</p> <ul style="list-style-type: none"> • Mammals, amphibians, insects and birds have different life cycles • Lifecycles vary in time depending on the species of animal- it can be as short as just a few weeks for insects, to up to 200 years for sea urchins. Larger animals often have longer life cycles but not always. • All animal life cycles begin with growth and development followed by reproduction.

What does behaving like scientists mean, can I define it?

What must I teach children so they can do these things?

- 1a. Use my scientific knowledge to predict what might happen.
- 1b. Sometimes I will also need to draw upon observations to help me predict
- 2a Use my scientific knowledge to hypothesise why *something* happened.
- 2b Sometimes I will also need to draw upon observations to help me hypothesise, these may be from my own experiments or from secondary sources (e.g. when hypothesising why some planets have more moons than others)
3. Plan to investigate how one thing affects another
4. Use evidence to describe how one thing affects another

- **Precise ideas as defined by learning journeys.**
- How to observe closely and carefully enough.
 - How to measure precisely enough and with appropriate resolution.
- **Precise ideas as defined by learning journeys .**
- How to observe closely and carefully enough.
 - How to measure precisely enough and with appropriate resolution.
- **How to identify, measure and control variables in cause and effect investigations.**
- **How to use evidence to describe how one variable effects another.**



A Model of Skills Progression.

1. Pose problems that require the application of knowledge being taught.
2. Deconstruct the problem to define what a child must understand and be able to do to tackle the problem (including what they need to observe and measure), teach these skills and knowledge **at that point**.
3. As children progress through the curriculum they will tackle problems using new ideas, and when the problem requires with closer observation and more precise measurement.

Good enough progression is being able to tackle these problems

Children gather evidence to describe the relationship between variables (cause and effect) by identifying what must be changed, what measured and what must be kept the same.

In Year 5 &6, using evidence to describe how one thing affects another is key. Children should be taught how to describe patterns and give a **judgement** on how sure they are. Key features of this are:

- Recognise that conclusions may be uncertain due to difficulties controlling and measuring variables accurately.
- That measurement always introduces some error. Understand that repeating experiments helps to identify what the true value is and that data points far from the mean are likely to be inaccurate and should be discounted.
- Adapting experiments to produce more precise conclusions when the question requires it, especially when seeking to find maximum, minimum or specific values

All living things have similar stages of life.

Fertilisation

Developing what is essential for surviving outside mother or seed

Birth

Developing body and learning if an animal

Able to move (if animal) and find (or make if plant) own food independently

Growing in order to survive independently and learning if an animal

Adolescent

Developing reproductive organs

Mature adult

Different animals have adapted these stages differently, which has enabled them to survive.

<u>Connections / deepening understanding</u> How is the understanding of this area deepened in other areas of the curriculum? What links are there in the other subjects in the curriculum?	<u>RADE</u> Are the rights of the child relevant in this area of study - do they get referred to in the work?	<u>Assessment</u> By the end of the unit the children will be able to ... Details of the objectives that they will have covered within this unit of work
History – Work of significant scientists in history. English – Non-chronological reports. Maths – creation of timelines and Venn diagrams.		

Assessment recording for the unit - checking the level of pitch of the work

<u>Key skill(s)/ knowledge to be assessed by the end of the unit</u>	<u>Lower attaining</u>	<u>Middle attaining</u>	<u>Higher attaining</u>
Animal life cycles begin with growth, development then reproduction. Life cycles vary depending on the species of the animal. That animals have different life cycles.	Animals have a life cycle. This begins at birth. Then they grow, develop and reproduce they begin to record their findings through drawings. Life cycles vary depending on the species of the animal. They begin to look for patterns and relationships. That animals have different life cycles. They begin to see that some are longer than others.	Animals have a life cycle. This begins at birth. Then they grow, develop and reproduce they record their findings through drawings and begin to explain what is happening at each stage. Life cycles vary depending on the species of the animal. They are able to describe patterns and relationships. That animals have different life cycles. They notice that some are longer than others (grow and develop over different times) and begin to give reasons why,	Animals have a life cycle. This begins at birth. Then they grow, develop and reproduce they record their findings through drawings and explain what is happening at each stage. Life cycles vary depending on the species of the animal. They are able to describe patterns and relationships. That animals have different life cycles. They notice that some are longer than others (grow and develop over different times) and give reasons why, They begin to write a conclusion based on the given results and/or data.

NB: The assessments are completed for two reasons – to enable the class teacher and in turn the subject leader to evaluate the pitch of the learning within the unit in order to consider any necessary updates and for the class teacher to report to parents on the attainment of pupils in the end of year reports.