



Silver Birch Class/Year Group 5/6

Topic

Investigate living things

Term Spring 2

Curriculum Drivers	Aspiration	Community	Key Vocabulary	Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings, Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering, non-flowering
National Curriculum	<p>Year 5 Pupils should be taught to:</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 <p>Year 6 Pupils should be taught to:</p> <ul style="list-style-type: none"> describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics 			
Intent	<p>This unit intends that pupils learn that Living things can be formally grouped according to characteristics. Plants and animals are two main groups but there are other living things that do not fit into these groups e.g. micro-organisms such as bacteria and yeast, and toadstools and mushrooms. Plants can make their own food whereas animals cannot. Animals can be divided into two main groups: those that have backbones (vertebrates); and those that do not (invertebrates). Vertebrates can be divided into five small groups: fish; amphibians; reptiles; birds; and mammals. Each group has common characteristics. Invertebrates can be divided into a number of groups, including insects, spiders, snails and worms. Plants can be divided broadly into two main groups: flowering plants; and non-flowering plants.</p> <p>As part of their life cycle, plants and animals reproduce. Most animals reproduce sexually. This involves two parents where the sperm from the male fertilises the female egg. Animals, including humans, have offspring which grow into adults. In humans and some animals, these offspring will be born live, such as babies or kittens, and then grow into adults. In other animals, such as chickens or snakes, there may be eggs laid that hatch to young which then grow to adults. Some young undergo a further change before becoming adults e.g. caterpillars to butterflies. This is called a metamorphosis. Plants reproduce both sexually and asexually. Bulbs, tubers, runners and plantlets are examples of asexual plant reproduction which involves only one parent. Gardeners may force plants to reproduce asexually by taking cuttings. Sexual reproduction occurs through pollination, usually involving wind or insects.</p>		Cross Curricular Links and wider influences	PSHE link New life/new beginnings



<p>Curriculum Driver Links</p>	<p>Community- Local habitats, Minsmere/Dunwich/Coastal Southwold Aspiration- How animals strive to survive.</p>	<p>Links to prior learning</p>	<p>Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals, including humans) • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants) Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats) • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats)</p>
<p>Concept Thread</p>	<p>Understand the Earth's movement in space This concept involves understanding what causes seasonal changes, day and night. Work scientifically This concept involves learning the methodologies of the discipline of science</p>	<p>Links to future learning</p>	<ul style="list-style-type: none"> • Differences between species. (KS3) • Reproduction in humans (as an example of a mammal), including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta. (KS3) • Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms. (KS3)



Lesson Intent			
Lesson Intent	Links to Prior Knowledge	Skills	Implementation/Intent
Elicitation task	Living things grow Classification and grouping of animals Habitats Flowering plants- parts		Over 2 lessons - PPT for home learners Carousel of activities for in school learners. https://pstt.org.uk/application/files/4115/4996/9079/Life_Cycles_of_Plants_and_Animals.pdf https://pstt.org.uk/application/files/5315/4996/9717/Classifying_Plants_and_Animals.pdf
WALT - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Living things have offspring that grow.	To present understanding of the life cycle of animals. To compare differences	Over 2 lessons <ul style="list-style-type: none"> PPT of Life cycle of a mammal/bird/insect/amphibian- draw diagrams of the life cycles Compare and describe the differences. - venn diagrams Start caterpillar hatching diary.
WALT - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Life cycles Growing to old age Animals reproduce.	To make observations To identify patterns.	<ul style="list-style-type: none"> Share data on gestation and lifespan and children to look for patterns and explain what they notice.
WALT- describe the life process of reproduction in some plants and animals	Parts of a plant Habitats What plants need to grow	To explain the difference between sexual and asexual reproduction in plants	Over 2 lessons <ul style="list-style-type: none"> Reproduction of plants - Hook, make wildflower seed bombs. Identify a suitable place to throw them. Label diagrams of the life cycle of a plant. How do plants reproduce?-pollination, dispersal, fertilisation Compare sexual and asexual reproduction of plants <ul style="list-style-type: none"> Plant sweet peas and strawberry plants Spider plants are great for showing asexual reproduction Take cuttings from a plant- grow in water to propagate then plant out once rooted.
WALT- describe how living things are classified into broad groups according to common observable	What is an animal?- different groups, eg birds, insects, fish, reptiles,	To ask appropriate questions To create a classification key.	Classification of Plants Looking at leaves- sort leaves according to different criteria- Venn diagram PPT on classification keys- children to generate a series of questions to create a key.



<p>characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>WALT - give reasons for classifying plants and animals based on specific characteristics</p>	<p>amphibians are all in the animal kingdom. Living things split into plant and animal kingdom Living things can be grouped in different ways.</p>		<p>Look at a selection of tulips- what do they all have in common? Why are they all tulips even though there are observable differences? Give children images or real daffodils and children to create their own classification key.</p>
<p>WALT- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>WALT - give reasons for classifying plants and animals based on specific characteristics</p>	<p>Living things split into plant and animal kingdom Living things can be grouped in different ways.</p>	<p>To research main characteristics To present data To explain why an animal belongs to a particular group.</p>	<p>2 lessons Animal can be split into 2 groups- Invertebrates and Vertebrates. Focus on Vertbrates- ppt on 5 groups- mammals, birds, fish, reptiles and amphibians. In groups, children to research one of the vertebrate groups and to present their work to the rest of the class. Home learning task- Present knowledge of the 5 vertebrate groups. Repeat activity for invertebrates.</p>
<p>WALT- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>WALT - give reasons for classifying plants and animals based on specific characteristics</p>	<p>Animal groups and characteristics</p>	<p>To present data To explain why an animal belongs to a particular group.</p>	<p>Look at a platypus - which features would put it into different groups? Children then to create their own imaginary animal, giving key features and explaining which group they would best fit into.</p>

