**Living Things and Their Habitats (Y5)**

**NC Statutory Guidance**

Pupils should be taught to:

* 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

**Working Scientifically**

During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

* planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
* taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
* recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
* using test results to make predictions to set up further comparative and fair tests
* reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
* identifying scientific evidence that has been used to support or refute ideas or arguments

**Resources**

Twinkl PlanIt to be adapted.

**Lesson Overview (Statutory in Bold)**

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| WALT | Knowledge to be Taught | Skills to be Taught and Investigations | Vocabulary |
| Describe how plants reproduce sexually. | Reproduction is the process by which new living things are made.  There are two types of reproduction: sexual and asexual.  Parts of a flower.  How fertilisation in flowers occurs. | **To describe the life process of reproduction in some plants and animals**  Dissect a lily flower | Sexual reproduction  Asexual reproduction  Offspring  Gametes  Fertilisation  Pollen  Ovule  Anther  Filament  Stamen  Stigma  Style  Ovary  Carpel  Petal  Sepal  Nectary  Stem |
| Describe how plants reproduce asexually. | Unlike sexual reproduction, asexual reproduction only needs one parent plant to make new plants.  Because there is only one parent plant, there is no fusion of gametes, and no mixing of genetic information. The new plants are identical to the parent plant. They are clones.  Examples. | **To describe the life process of reproduction in some plants and animals**  Take cuttings and try to grow a new plant asexually. | Genetically identical  Clone  Plantlet  Side branches  Runners  Tubers  Bulbs  Cuttings |
| Describe the life cycle of different mammals. | A mammal is a particular type of animal. There are two things that make mammals special:  Mammals make milk to feed their babies.  They are all warm blooded.  The male gamete is called sperm. The sperm travels down the male's penis and enters the female's body through the vagina. A sperm cell will fuse with the ovum, the female gamete. When this happens, the ovum is fertilised. | **To describe the life process of reproduction in some plants and animals**  **To describe the life cycle of a mammal** | Mammal  Embryo  Kitten  Adolescent  Adult  Gamete  Sperm  Ovum  Fertilised  Gestation  Monotreme |
| Compare life cycles of amphibians and insects. | Metamorphosis is a process by which animals undergo an abrupt and obvious change in the structure of their body and their behaviour.  Life cycle of butterfly and amphibian | **To describe the life cycle of an amphibian and an insect** | Metamorphosis  Frogspawn  Tadpole  Froglet  Caterpillar  Pupa  Chrysalis  Butterfly |
| Compare life cycles of birds to other creatures. | All species of birds lay eggs. If the eggs are fertilised, they will contain the bird embryo, which will develop inside the egg until it is ready to hatch.  The chicken eggs that people eat are not fertilised, so they do not contain baby chickens. However, we can explore chicken eggs to find out more about them.  What parts of an egg can you name? Tell your partner. | **To describe the life cycle of a bird**  Chicks – observe birth (hatching) and development. | Chalaza  Germinal disc  Albumen  Shell  Shell membrane  Yolk |
| Investigate growth of new chicks. |  | Chicks – investigate weight gain from birth; use line graphs and measure accurately. |  |