

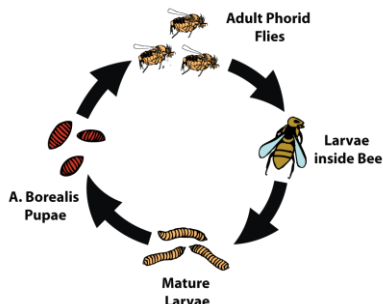


# St James' Church of England Primary School

## Science Overview Sheet



### Year 5 – Living Things and Habitats: Life Cycles



**Rationale:** Pupils should study and raise questions about their local environment throughout the year. They should observe life-cycle changes in a variety of living things, for example plants in the vegetable garden or flower border, and animals in the local environment. They should find out about the work of naturalists and animal behaviourists, for example, David Attenborough and Jane Goodall.

Pupils should find out about different types of reproduction, including sexual and asexual reproduction in plants and sexual reproduction in animals.

**Pre-unit task:** Knowledge Organiser Quizzes

#### Working Scientifically:

- Observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times).
- Asking pertinent questions and suggesting reasons for similarities & differences.
- They might try to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs.
- Observe changes in an animal over a period of time (for example, by hatching and rearing chicks).
- Comparing how different animals reproduce and grow.

#### Statutory Requirements:

- **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.**
- Plants produce pollen from the stamen (male part of a plant) which is transferred to the stigma and then the ovary (female parts of the plant).
- Fertilisation occurs in the ovary of the flower.
- Seeds are formed as a result of fertilisation

#### Overview:

Lesson 1: Making New Plants - I can describe how some plants reproduce.  
Lesson 2: Mammals- I can describe the life cycles of different mammals  
Lesson 3: Jane Goodall- I can explain what Jane Goodall discovered about chimpanzees.  
Lesson 4: Metamorphosis- I can compare the life cycles of amphibians and insects.  
Lesson 5: Comparing Life Cycles- I can compare the life cycles of plants, mammals, amphibians, insects and birds. I can identify and explain irreversible chemical changes.

#### Cross Curricular Links

#### Resources

- Large geranium plant per group
- Transparent beakers or jars
- Coloured paper as required
- Filming device such as a camera or tablet as required
- Split pins
- Hen's egg per pair
- Beaker or bowl to crack the egg into per pair

#### Notes and Guidance

Most Children will: • Explain the function of the parts of a flower. • Give two differences between sexual and asexual reproduction. • Identify the features of plants pollinated by insects or the wind.

Less Able Children will: • Identify parts of a flower. • Give one difference between sexual and asexual reproduction. • Describe ways plants can be pollinated. • Identify plants that reproduce asexually. • Describe ways to grow new plants other than from seed.

More Able Children will: • Explain how a plant's features are adapted to pollination by insect or wind. • Explain that plants that reproduce asexually are genetically identical to the parent plant. • Explain the classification of different mammals. • Give five facts about Jane Goodall.