## Key Learning in Science: Year 2

### Please Note:
There should be plenty of opportunities throughout the year for children to use the school/local environment to observe plant growth, changes in habitats across the seasons and life cycles of a variety of different animals (for example: chicks/other birds, tadpoles/frogs, caterpillars/butterflies, other mini-beasts, other young animals during trips to farms/zoo's). This could be done through an ongoing/monthly nature journal to observe, record and review over a period of time. The unit of work on ‘Animal survival and growth’ can be covered in the same half term as work on ‘Habitats’ in order to link the concept of survival.

### Environment - Living things and their habitats

Pupils should be taught to:
- Explore and compare the differences between things that are living, dead, and things that have never been alive.
- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Identify and name a variety of plants and animals in their habitats, including micro-habitats.
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.
- Different kinds of plants and animals live in different kinds of places.
- There are different kinds of habitat near school which need to be cared for.
- Habitats provide the preferred conditions for the animals/plants that live there (compare local habitats and less familiar examples).

**Notes and Guidance (non-statutory):**
Pupils should be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They should raise and answer questions that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms ‘habitat’ (a natural environment or home of a variety of plants and animals) and ‘micro-habitat’ (a very small habitat, for example for woodlice under stones, logs or leaf litter). They should raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example plants serving as a source of food and shelter for animals. Pupils should compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest.

**Pupils might work scientifically by:**
- Sorting and classifying things as to whether they are living, dead or were never alive.
- Recording their findings using charts.
- Describing how they decided where to place things.
- Exploring questions such as: ‘Is a flame alive? Is a deciduous tree dead in winter?’
- Talking about ways of answering their questions.
- Constructing a simple food chain that includes humans (e.g. grass, cow, human).
- Describing the conditions in different habitats and micro-habitats (under log, on stony path, under bushes).
- Finding out how the conditions affect the number and type(s) of plants and animals that live there.

### Animals - Animal survival and growth

Pupils should be taught to:
- Notice that animals, have offspring which grow into adults.
- Find out about and describe the basic needs of animals, for survival (water, food and air).

**Notes and Guidance (non-statutory):**
Pupils should be introduced to the basic needs of animals for survival. They should also be introduced to the process of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep.

**Pupils might work scientifically by:**
- Observing, through video or first-hand observation and measurement, how different animals grow.
- Asking questions about what things animals need for survival suggesting ways to find answers to their questions.

### Health – How we grow and stay healthy

Pupils should be taught to:
- Notice that humans, have offspring which grow into adults.
- Find out about and describe the basic needs of humans, for survival (water, food and air).
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
- Medicines can be useful when we are ill.
- Medicines can be harmful if not used properly.

**Notes and Guidance (non-statutory):**
Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the process of reproduction and growth in animals [humans]. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. Growing into adults can include reference to baby, toddler, child, teenager, adult.

**Pupils might work scientifically by:**
- Observing, through video or first-hand observation and measurement, how humans grow.
- Recording their findings using charts.
- Asking questions about what things animals [humans] need for survival and what humans need to stay healthy.
- Suggesting ways to find answers to their questions.