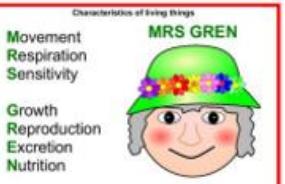
Living Things and their Habitats – Knowledge

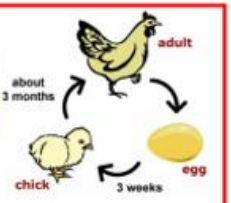
Key Vocabulary

Word	Definition
behaviourist	someone who studies animal behaviour: how they learn from their environment, rather than emotions or feelings.
naturalist	an expert in, or a student of, natural history.
seed dispersal	it is the way seeds get from the parent plant to a new place.
stigma	the stigma is the area where pollen is received.
stamen	the stamen is the part of the flower that produces pollen. There are two main parts of the stamen: the filament and anther.
life processes	there are seven life processes that every living thing has in common.
asexual reproduction	offspring obtain all of their information from just one individual (one parent).
pollination	the transference of pollen to a flower, or plant to allow fertilisation. Happens in sexual reproduction
life cycles	the series of changes that an animal or plant goes through from the beginning to the end of its life.
root	the part of a plant which attaches it to the ground. It transfers water and nutrients to the rest of the plant.
germination	the development of a plant from a seed or spore after a period of dormancy.

All living things go through these 7 life processes

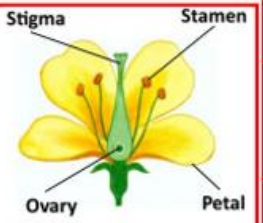


- Chickens, like all birds, lay eggs. Inside an egg that has been fertilised, a chick will grow and eventually hatch.



- A similarity of female birds, mammals most reptiles and some species of fish is that their eggs are fertilised inside the female.
- Mammal life cycle

Sexual reproduction of a plant



- The stamen is the male part of the flower which holds pollen
- The carpel is the female part of the flower which contains eggs.
- Pollen travels from the anthers of one flower to the stigma of another plant. This is called pollination. Plants rely on bees or other insects to carry their pollen while some pollen floats in the wind.
- After pollination, the pollen grain and the egg join together, fertilisation.
- The fertilised egg will develop into a seed.

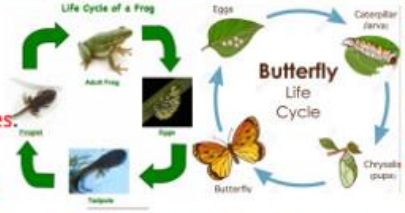
Asexual reproduction of a plant

Plant cuttings: Some plants stems can grow roots if they are planted in the correct conditions, such as geraniums. This allows for people to make lots of copies of the same plant.

Runners: Some plants, like strawberry plants, grow runners which have new plants on the end. These plants are an exact copy of the parent plant from which they have grown.

Bulbs: Other plants (onions, daffodils, garlic and tulips) produce bulbs which will grow if they are planted. The bulbs form under the soil. This helps the plant to survive during the winter months.

Frogs start off life as a mass of eggs called frogspawn. The eggs then hatch into tadpoles. They then gradually grow a set of back legs, and front legs. They lose their gills, and their tail shrinks.



Both animals go though meta-morphosis.

A butterfly starts its life as an egg, which hatches into a caterpillar. Eventually, the caterpillar forms a chrysalis . Inside the chrysalis, it undergoes metamorphosis, before emerging as an adult butterfly.

Focus Scientists

Jane Goodall, a behaviourist, is best known for her 60 year research on social interactions of wild chimpanzees.

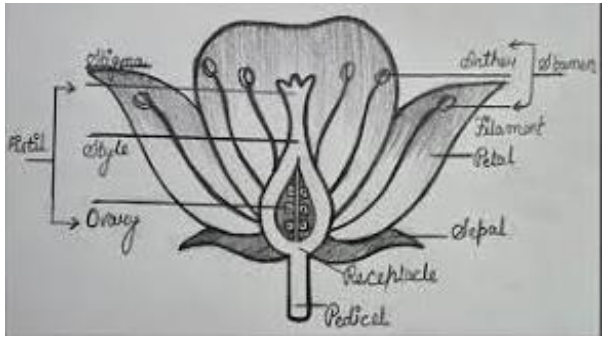
Sir David Attenborough, a naturalist, who has dedicated his life to the study of natural history .

Materials – Skills – Working Scientifically

National Curriculum
Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.

Making observations

Drawing labelled diagrams



Taking measurements

Key Vocabulary	
diagram	A drawing that explains how a system, machine, process, plan, etc., operates or is organised.
measurements	To use equipment to take accurate measurements e.g. with a Newton meter, ruler or measuring cylinder.
observing	It means to notice what's going on through your senses.