

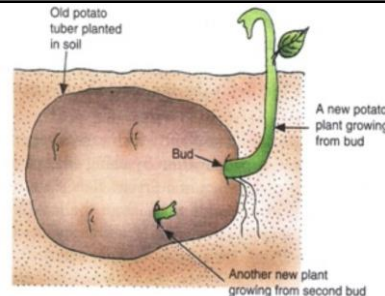
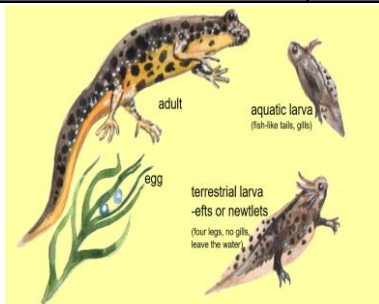


# Waterbeach Community Primary School

## Curriculum Capture for Year 5 Science: Living Things and Their Habitats – Reproduction and Life-cycles

Key Knowledge	
<b>How are life-cycles different?</b>	<b>How do the lifecycles of birds and mammals differ?</b>
All living things have a life-cycle. Animal life-cycles include: a <b>gestation</b> period; birth; a period as a young, growing animal; a period as a fully-grown adult; <b>reproduction</b> ; death. Whilst basic features are the same, the life-cycles of different species differ greatly.	Birds and mammals have <b>simple</b> lifecycles. They are different to insects and amphibians because their offspring are born in a similar (although smaller) form to the adult.  The offspring of most mammals develop inside their mother's body before birth and are dependant on their parents for some time. The offspring of birds develop in eggs, outside the body and are dependent on their parents until they can fly.
<b>How do animals reproduce?</b>	<b>What are the features of the lifecycles of amphibians?</b>
All living organisms reproduce. Living things can reproduce <b>sexually</b> (two biological parent cells, male and female) or <b>asexually</b> (one parent). <b>Almost all animals reproduce sexually</b> ; the male cells (sperm) and female cells (eggs) are in different animals. In sexual reproduction, the genetic information from <b>two parents</b> mixes and the offspring are <b>similar</b> but not identical to the parents. This can help a species survive if environmental conditions change.	Compared to mammals, reptiles, fish and birds, <b>amphibians (such as frogs and newts)</b> have a more <b>complex life cycle</b> . Offspring are a different form to adults and go through significant changes called <b>metamorphosis</b> .
<b>How do plants reproduce?</b>	<b>What are the features of the lifecycles of an insects?</b>
All flowering plants can reproduce sexually. Flowering plants have both male cells (pollen) and female cells (ovule) however, most plants cannot fertilise themselves. Some plants, such as potatoes, strawberries and bulb flowers use <b>asexual reproduction</b> to form new plants that are identical (clones) to the parent plant. This is helpful to food producers who want to produce consistent varieties.	<b>Insects</b> have <b>complex lifecycles</b> which involve significant changes called <b>metamorphosis</b> . There are two very different insect lifecycles: those that involve <b>complete metamorphosis</b> (eg butterflies) and those that undergo <b>incomplete metamorphosis</b> (eg.dragonflies).

Scientific Vocabulary	
asexual reproduction	Only one parent organism is needed to reproduce; creates genetically identical offspring
fertilisation	The process in which male sex cells and female sex cells fuse in order for an egg to form life.
gestation	The time period between fertilisation and birth.
instar	The phase between two periods of moulting in the development of an insect larva.
larva	The immature form of an insect or amphibian which is very different to the adult eg caterpillar
Life-cycle	The series of changes that take place over the life of a living thing
pupa	The stage in an insect's life-cycle when it undergoes transformation between immature and mature stages; a chrysalis is the pupa stage of a butterfly
metamorphosis	The process of transformation some offspring go through to change from young to adult form
moult	When an immature insect sheds its exoskeleton to allow the next stage of growth.
nymph	The immature form of an insect that does not change its form as it grows (eg. dragonfly)
Sexual reproduction	Two parent organisms are needed to reproduce; offspring are similar but not identical to the parents



Different lifecycle stages of a newt

Although it is a flowering plant, potatoes reproduce asexually

Birds and mammals have simple lifecycles but with differences