
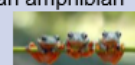





Knowledge Organiser	Subject	Topic
Year 4	Science	Living Things and their Habitat

Key Vocab		
1	Vertebrate	Vertebrates are animals with a backbone
2	Invertebrate	Invertebrates are animals without a backbone
3	Gills	Slits on the side of a fish which help it breathe
4	Fins	Part of a fish that helps it move and balance
5	Scales	Thin plates protecting the skin of fish or reptiles
6	Lungs	Spongy bags in the chest used when breathing
7	Body temperature	How hot or cold the inside of an animal's body is
8	Section	A part of something
9	Deciduous	A tree that loses its leaves in Autumn and grows new ones in Spring
10	Coniferous (Evergreen)	A plant or tree that keeps its leaves all year
11	Algae	A small plant that is found in water. It has no stems, roots or leaves

Invertebrates	
Invertebrates can be grouped 4 ways	<ul style="list-style-type: none"> • Insects • Arachnids • Snails and slugs • Worms
How to spot an insect 	<ul style="list-style-type: none"> • 3 body sections • 6 legs
How to spot an arachnid 	<ul style="list-style-type: none"> • 2 body sections • 8 legs
How to spot snails and slugs 	<ul style="list-style-type: none"> • Slimy foot • Often have a shell
How to spot a worm 	<ul style="list-style-type: none"> • 0 legs • Long tube-like body

Plant Groups	
Plants can be put into one of two groups	<ul style="list-style-type: none"> Flowering plants Non flowering plants
Flowering plants are made up of 4 groups	<ul style="list-style-type: none"> • Grasses • Cereals • Garden shrubs • Deciduous trees
Non flowering plants are made up of 3 groups	<ul style="list-style-type: none"> • Algae • Coniferous trees • Ferns

Grouping living things	
Animals can be put into one of two groups	<ul style="list-style-type: none"> Vertebrates – animals with a backbone Invertebrates - animals without a backbone
Vertebrates	
Vertebrates can be grouped 5 ways	<ul style="list-style-type: none"> • Fish • Amphibians • Reptiles • Birds • Mammals
How to spot a fish 	<ul style="list-style-type: none"> • Breathes with gills • Lays eggs in water • Has fins and scales • Its body changes temperature
How to spot an amphibian 	<ul style="list-style-type: none"> • Born with gills then develops lungs • Lays eggs in water • Damp skin • Body temperature changes
How to spot a reptile 	<ul style="list-style-type: none"> • Breathes with lungs • Lays eggs on land • Dry scaly skin • Body temperature changes
How to spot a bird 	<ul style="list-style-type: none"> • Breathes with lungs • Lays eggs with hard shells • Has feathers • Steady body temperature
How to spot a mammal 	<ul style="list-style-type: none"> • Breathes with lungs • Babies are born live • Body hair or fur • Steady body temperature • Feeds babies milk

Changing Habitats

Living things depend upon their habitats to give them everything they need, including food, water, air and a space to live and grow. Human beings are able to make big changes to their habitat to make it suitable for them to live in.

Some species are very good at adapting to changes in their habitats. These species are able to live alongside humans successfully in towns and cities

Some animals can only survive in a particular habitat, such as rainforest, desert or marshland. When the habitat changes, these species find it very difficult to survive

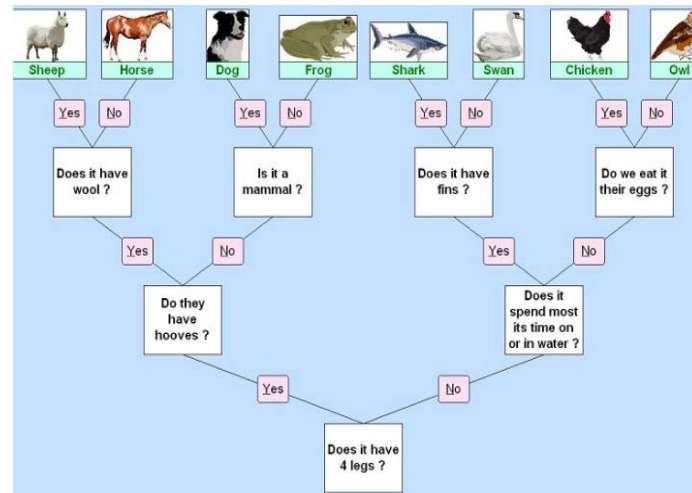
Events like earthquakes, storms, floods, hurricanes, wildfires and droughts can have very serious consequences for living things. Habitats can be destroyed and the plants and animals that live there might be killed. Those animals that survive might find that their sources of food and water have disappeared. They may no longer have a safe place to live and grow.

Most of the changes to the habitats of living things are caused by humans. We call these changes man-made.



Deforestation

Many of the things that humans do, destroy animal habitats. Only a very small amount of the world's land is covered in rainforest, but about half of all plants and animals live here. Humans have cut down large areas of the forest to clear space for building or farming. This has destroyed the habitats of many species and made it difficult for them to survive



Classifying Plants and Animals

Classifying is when you group things together that are similar. With so many living things to make records of, and so many yet to discover, it is important that we have a system to organise and make sense of the information we have about them. We organise living things into groups based on their similarities and differences, so that we can learn more about what makes each species unique. The differences between living things is sometimes called variation.

