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Knowledge organiser

Predator!

Predators, prey and decomposers

A predator is an animal that hunts, kills and eats other animals. An apex predator is at the top of a food chain and isn't hunted by any other animal. The animals that predators hunt and kill for food are called prey. A decomposer eats dead plants and animals, releasing nutrients into the soil for plants to take in through their roots. Some bacteria, fungi, insects and worms are decomposers.



Lions are apex predators. They eat large mammals, such as zebras and young elephants.



Shrews are both predators and prey. They eat insects and worms and are eaten by birds of prey and some mammals, such as foxes.



Worms are decomposers and prey. They eat dead plants and animals. They are eaten by birds and some small mammals, such as shrews.

Prey adaptations

Prey animals can be herbivores, carnivores or omnivores. They must constantly be on the lookout for predators. To survive, they must escape from or defend themselves against animals trying to eat them. Prey have important adaptations that help them to avoid being caught and eaten. These adaptations can include alarm calls, defences such as spines, stings, venom and horns, or camouflage so they can hide from the animals hunting them. They sometimes have eyes on the sides of their heads so they can see predators approaching.

Predator adaptations

Predators have many physical features that help them to hunt and kill other animals.



Cheetahs have strong legs and slender bodies for speed. They are the fastest land animal and hunt antelopes and gazelles.



Praying mantises are camouflaged. They sit still and wait to ambush their prey of lizards, frogs and small birds.



Great white sharks have sharp teeth and strong jaws to capture their prey. They feed on marine mammals, as well as fish and seabirds.



Leopards have forward-facing eyes so they can track and pursue their prey. They stalk gazelle, wildebeest and rodents.



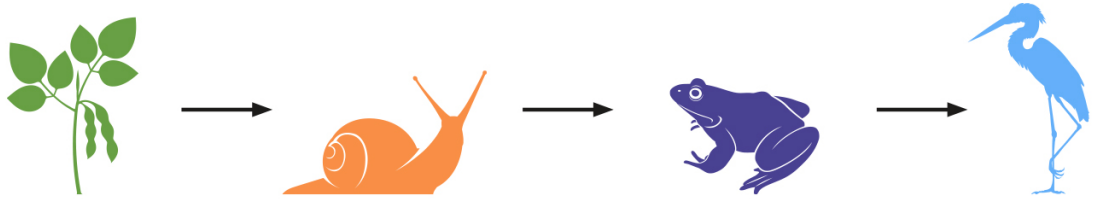
Buzzards have sharp claws to capture and carry away prey. They eat small mammals and other birds.



Barn owls use their excellent sense of hearing to find their prey. They hunt mice and shrews at night.

Food chains

Food provides energy for all living things. Energy is needed for life processes, including breathing, growth and movement. Food chains show how energy passes from one plant or animal to another. Most plants make their own food. They are called producers. Animals that eat other plants or animals are called consumers.



bean plant
producer

garden snail
primary consumer

common frog
secondary consumer

grey heron
tertiary consumer

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Parasites

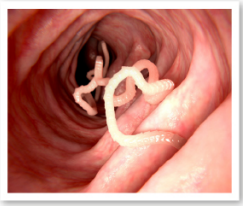
Parasites are living things that live in or on another living thing and survive by taking nutrients from the host.

Human parasites

Head lice are ectoparasites that live on the human scalp. They get nutrients by biting through the skin and drinking human blood. Head lice make the head feel itchy. Tapeworms are endoparasites that live in the human gut. They attach onto the inside of the gut wall and absorb nutrients from the food a person eats. This can cause pain, diarrhoea, vomiting or tiredness for the person.



magnified head louse



tapeworm in human intestine

Plant parasites

Some plants are also parasites because they get nutrients from other plants. Mistletoe grows in branches of trees. It inserts part of its root through its host's bark to get water and minerals. Eyebright is a small flowering plant that gets some of its nutrients from the roots of grasses that grow nearby.



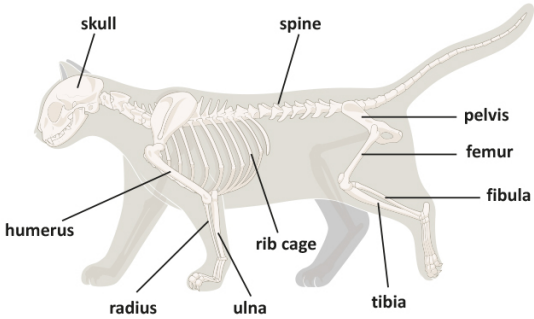
mistletoe growing in a ball on a tree



eyebright

Skeletons

Many animals have a skeleton to support their body, help them move and protect their internal organs. Skeletons are made from individual bones that are joined together with muscles and ligaments. This means skeletons can bend at joints, such as knees and ankles.



Carnivorous plants

Carnivorous plants have adapted to grow in places where the soil is thin and has few nutrients, so they get nutrients from trapping and consuming insects. Carnivorous plants include the pitcher plant and Venus flytrap. These plants trap insects in a variety of ways. The leaf of a pitcher plant is shaped like a cup. Insects are attracted to the sweet nectar inside the cup, then they fall in and cannot get out. Venus flytraps also produce sweet nectar to attract insects. Then, they snap shut, trapping the insects between their spiky leaves.



pitcher plant



Venus flytrap

Glossary

adaptation	A characteristic of a living thing that makes it suited to its environment and helps it to survive.
ambush	To suddenly attack something after hiding and waiting for it.
camouflage	Ability to blend in with surroundings.
carnivore	An animal that only eats meat.
endoparasite	A parasite that lives inside a host's body.
ectoparasite	A parasite that lives on the outside of a host's body.
decomposer	An organism, such as fungus, that breaks down and feeds on dead animals or plants.
herbivore	An animal that eats only plants.
host	A plant or animal on which another plant or animal lives.
mammal	A warm-blooded animal with a backbone, whose body is usually covered in hair or fur.
nectar	A sweet liquid produced by flowers and collected by insects.
nutrient	A substance needed by animals and plants to live and grow.
omnivore	An animal that eats plants and animals.
stalk	To follow an animal as closely as possible without being seen or heard.

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