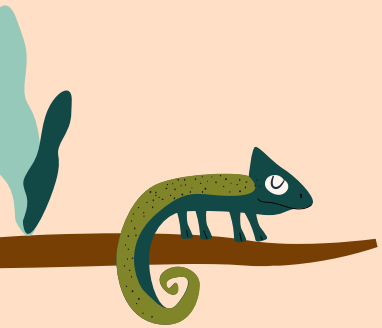
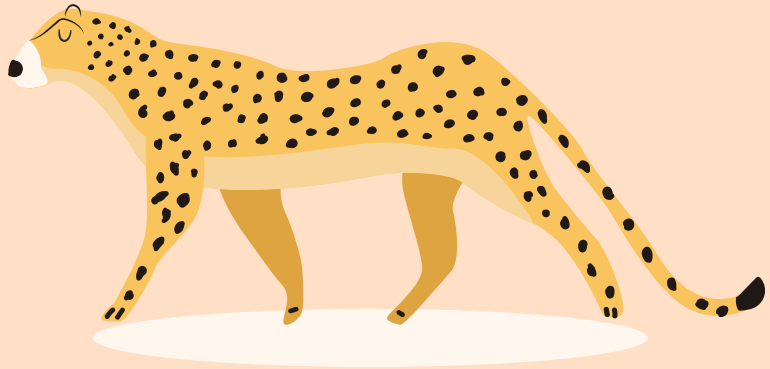
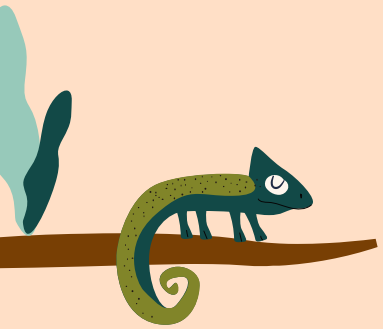
Science week!



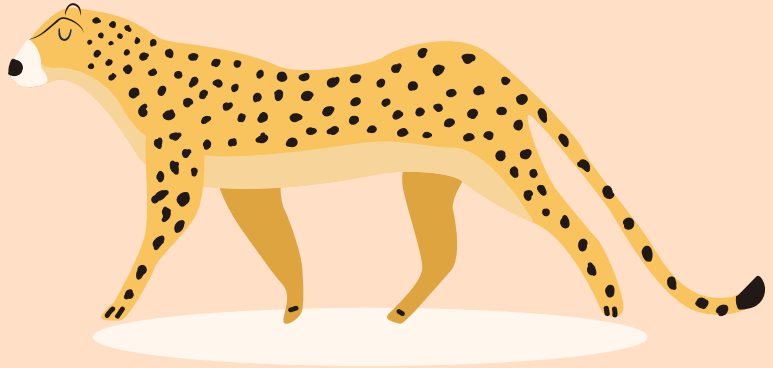


BIOLOGY



Living things and their habitats

Animals, including humans



This week, you will be...

- Constructing and interpreting food chains, identifying producers, predators and prey;
- Recognise that environments can change and that this can sometimes be dangerous for living things.

- Recognising that living things can be grouped in a variety of ways;
- Exploring and using classification keys to help group, identify and name a variety of living things in their local and wider environment.

- Identifying how animals and plants are adapted to suit their environment in different ways;
- Recognising that living things produce offspring (young) of the same kind, but normally young vary and aren't identical to their parents.

Explorify

What if we ate insects?

How would you produce enough of them to eat?
How would you prepare them?
would you like eating them?

What if we ate insects?

we need protein in our diets and much of that protein comes from eating animals and products from animals.
But as the world's population increases, it will be harder to provide enough protein for everyone if we continue to rely on animal products for most of it, so we need to consider other sources of protein.
Insects are eaten in many cultures, considered a delicacy and are part of the everyday diet.
Did you know... that for the same mass, insects provide much more protein than red meat?

Explorify

What if you had teeth like a snake?

what would you look like?
would you be able to talk?
would it be difficult to eat?
would you have to change what you eat?

What if you had teeth like a snake?

Most snakes have teeth, although the number and arrangement is different in each species.
They normally curve backwards and are used to drag food down the throat rather than for chewing. As snakes cannot chew their food, some can even separate their jaws in order to eat large prey.
Some snakes have fangs; these are hollow teeth that inject poison, called venom, into their prey.

Focus for today will be...

???

Focus for today will be...

Food chains

Web of Wildlife – Food chains key words worksheet

Key word	What I think it means	What I've learned	Example
Herbivore			
Carnivore			
Omnivore			
Predator			
Prey			
Producer			
Consumer			
Primary consumer			
Secondary consumer			
Tertiary consumer			
Apex predator			
Scavenger			

Explorify

Food chains

Why do animals eat different things?

Start by thinking about any pets you have...
Why do animals need to eat food?
Think of 3 different animals. what do they eat? where do they live?
How could you find out what foods different animals eat?
How could you group the animals?
How are the animals in each group similar?

Food chains

Why do animals eat different things?

Animals, including humans, need to eat food to supply their bodies with energy and to build new tissues for growth and repair.

Some animals only eat other animals and these are called carnivores. Carnivores are often predators, so hunt and catch their prey, but could also be scavengers, such as vultures, which eat dead animals.

Herbivores are animals that eat only plant material. Horses, cows and rabbits are herbivores.

Omnivores eat both animals and plant material. Dogs, hedgehogs and some birds are omnivores.

The teeth and digestive system of an animal are adapted for the diet it eats. For example, many carnivores have sharp teeth for biting and tearing flesh. The diet of an animal also depends on where it lives, its habitat and if it is domesticated. For example, a wild cat eats small mammals and birds, but a pet cat eats cat food (and possibly the occasional unlucky bird or mouse!)

web of wildlife

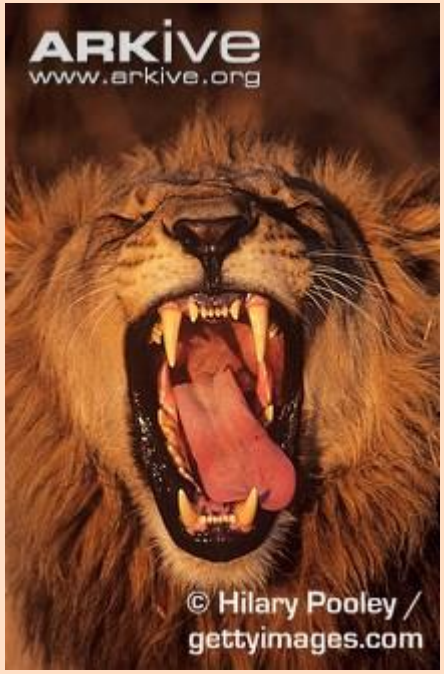
Food and food chains

- All living things need food to survive.
  - organisms obtain their food in different ways.
  - Some animals eat plants, some eat other animals.

- The feeding relationships between animals and plants in a habitat can be described with a food chain.

Can you think what these words mean?

PREDATOR



Lion

PREY

Thomson's gazelle

Can you think what these words mean?

Carnivore

Cheetah

Herbivore

Koala

HERBIVORE:

an animal which only eats plants.

Koala

Rabbit

CARNIVORE:

an animal which eats meat (other animals).

Cheetah

Fox

what about this word?

OMNIVORE

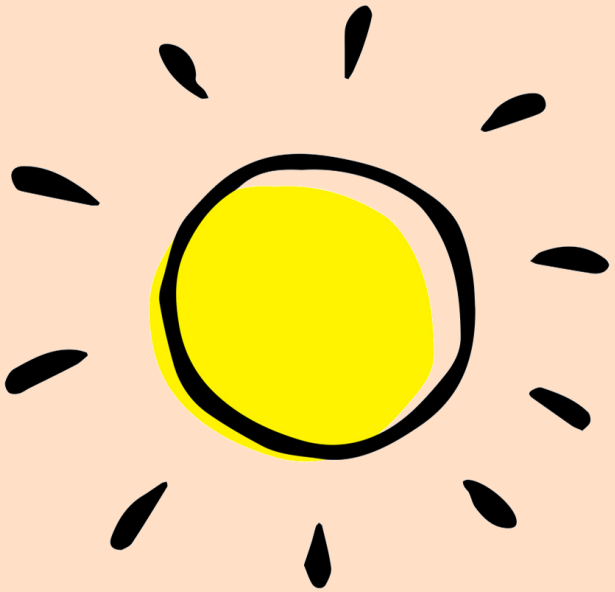
OMNIVORE:

an animal that feeds on both plants and other animals.

Can you think of any animals that eat plants?

Can you think of any animals that eat other animals?

How do plants get their food?



What is a food chain?

- Food chains show <u>what eats what,</u> in a particular habitat.

- All food chains start with a <u>PRODUCER</u>.

Grass

Rabbit

Fox

what is a food chain?

PRODUCER:

An organism, usually a green plant, that uses photosynthesis to turn sunlight, water and carbon dioxide into sugars (energy).

Grass

CONSUMER:

an animal in a food chain that eats (consumes) a plant, or another animal.

Grass

Rabbit

Fox

CONSUMERS:

- Dominate most of a food chain.
- Have important roles to play within an ecosystem, such as balancing the food chain by keeping animal populations at a reasonable number. Without proper balance, an ecosystem can collapse and cause the decline of all affected species.

Grass

Rabbit

Fox

what is a food chain?

The links between animals and plants in a habitat can be shown by drawing a food chain.

Grass

Rabbit

Fox

what do you think the arrow means between the pictures?

The arrow in a food chain means 'is eaten by'.

PRODUCERS → Plants are called **producers** because they make (produce) their own food.

Can you sort these images into the correct group?

Producer

Consumer

CONSUMERS → Animals are called **consumers** because they eat (consume) other plants and animals.

Grass

Rabbit

Fox

PRIMARY CONSUMER

SECONDARY CONSUMER

A simple British woodland food chain

PRODUCER

CONSUMER
PRIMARY CONSUMER
HERBIVORE
PREY

CONSUMER
SECONDARY CONSUMER
CARNIVORE
PREDATOR

A British woodland ‘food web’

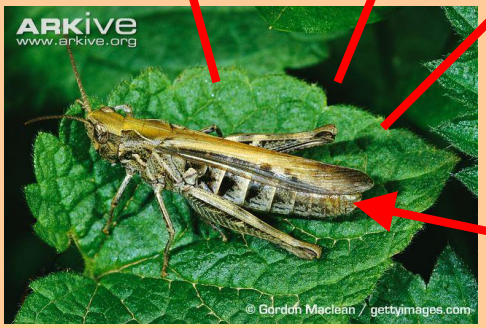
Sparrowhawk

Fox

Lizard

Blue tit

Rabbit



Grasshopper

Grass

Changes to food chains

- Animals and plants depend on each other for survival.
- This is known as INTERDEPENDENCE.

Common toad eating young grass snake

Grass snake eating common toad

- If something changes at one level in a food chain, it can affect all other levels in the food chain too.

WHAT IF...

A pesticide killed all the grasshoppers....

Sparrowhawk

Blue tit

Grasshopper

Grass

...what would happen to everything else in the food chain?