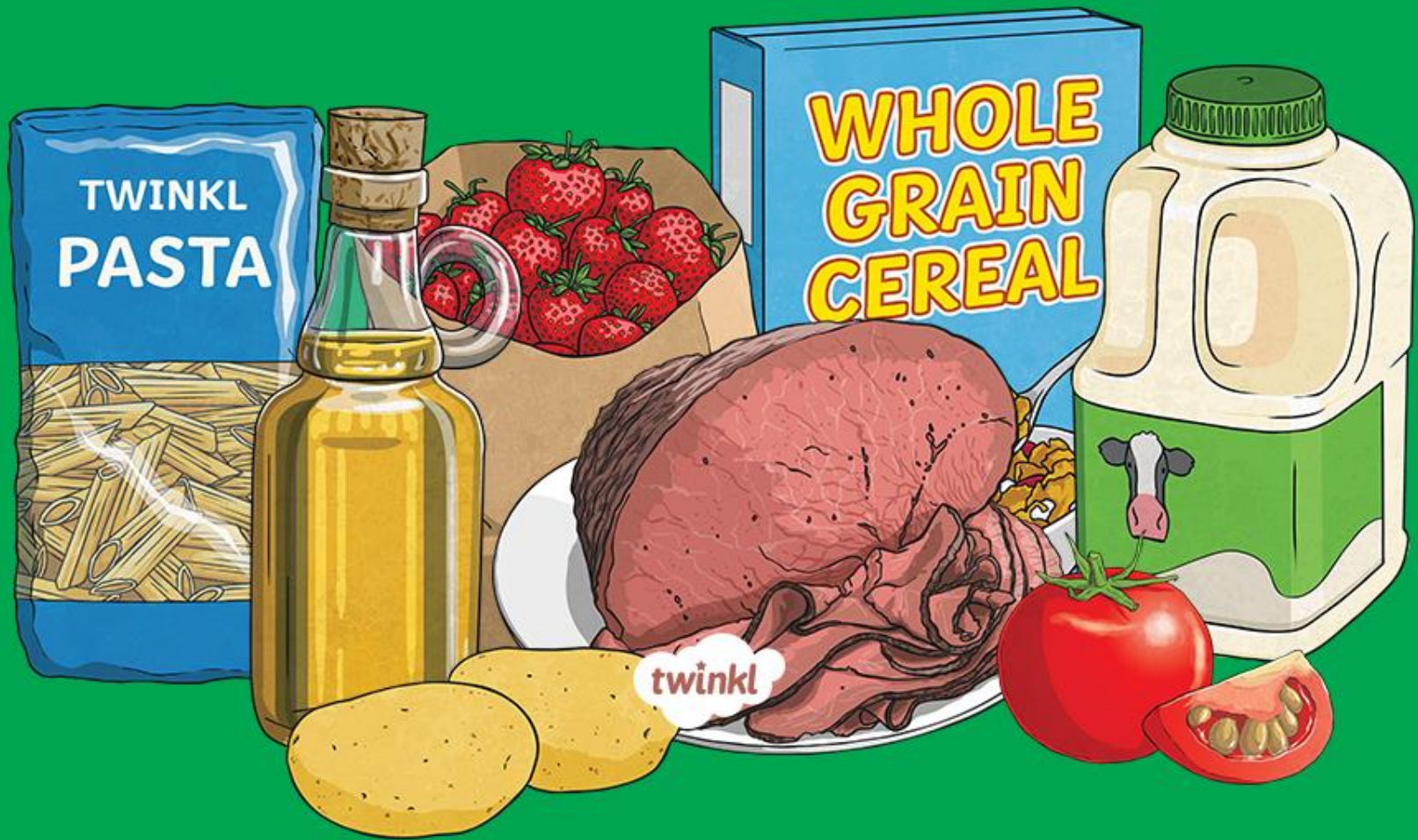




Science

Animals Including Humans

Types of Nutrition



Aim

- I can explain how living things obtain food.
- I can state why animals, including humans, need the right type of nutrients.

Success Criteria

- I can explain how plants obtain food.
- I can explain how animals, including humans, obtain food.
- I can demonstrate I understand the difference between how plants and animals obtain food.
- I can explain the difference between food groups and types of nutrients.
- I can explain what types of nutrients humans need.

Living Things and Food



Why do living things need food?

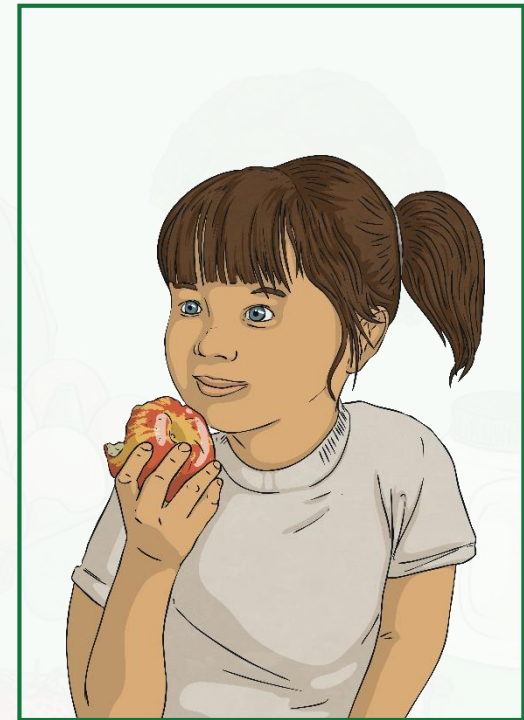
To grow



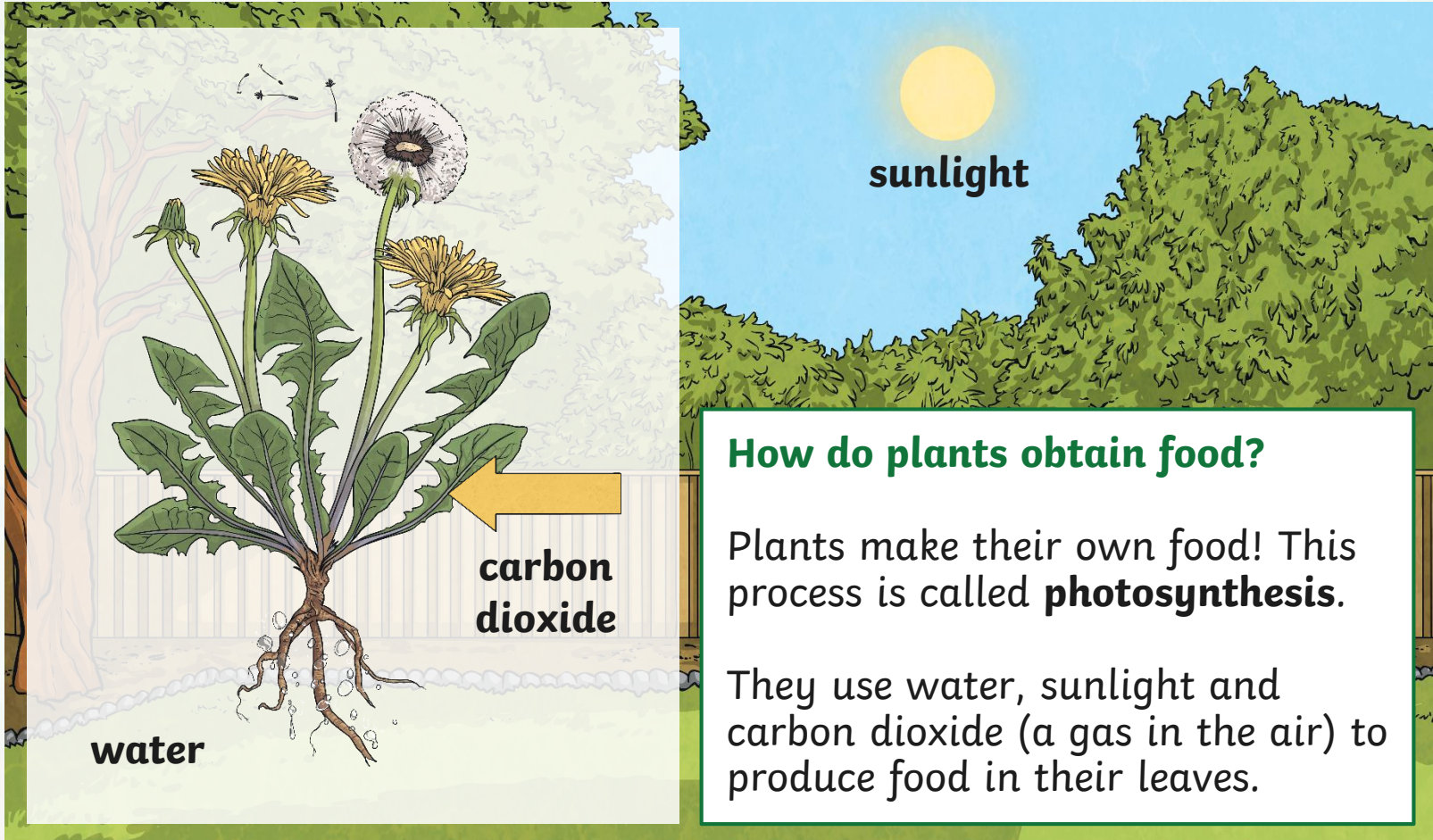
To be strong



To be healthy



Photosynthesis

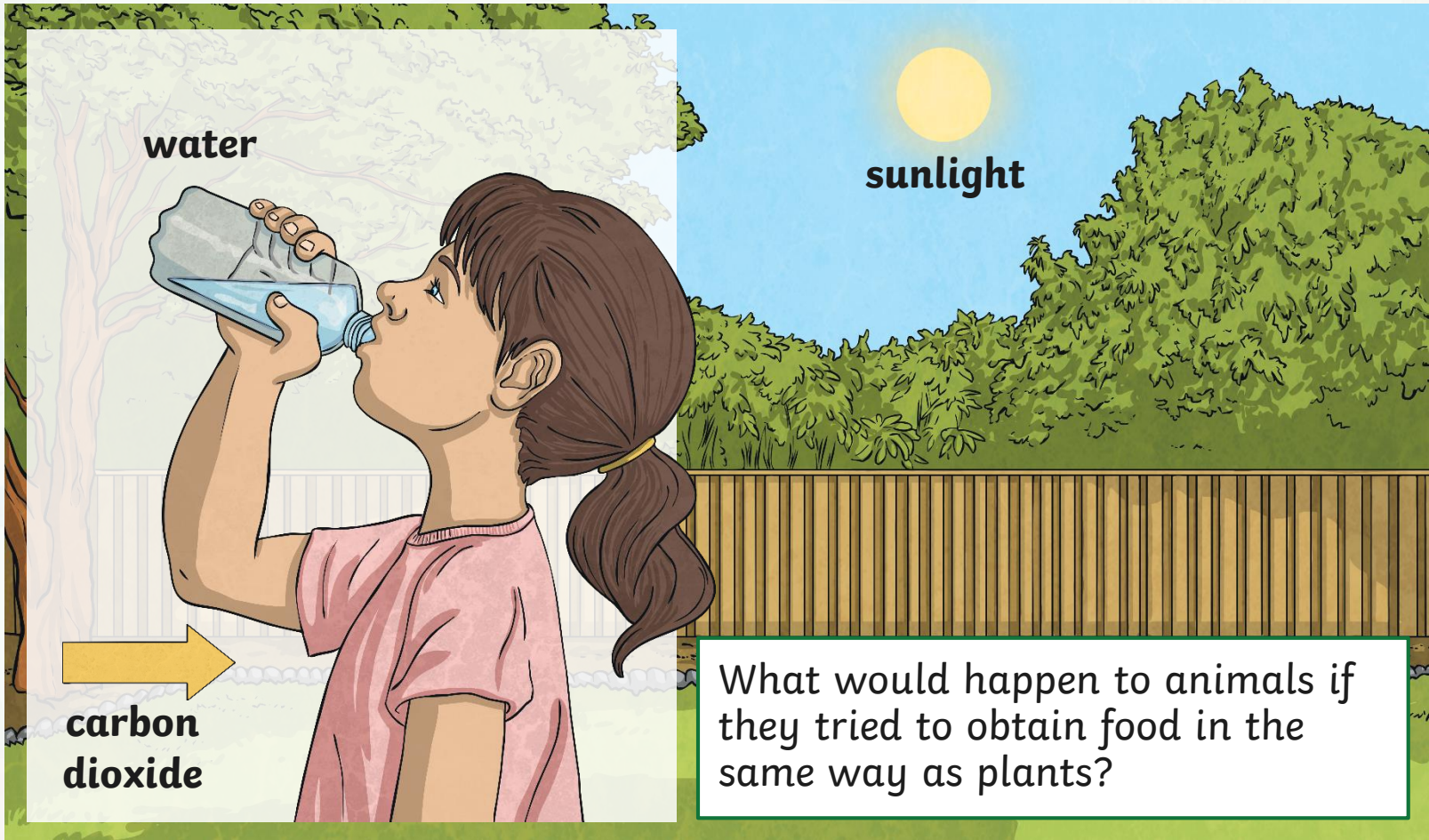


How do plants obtain food?

Plants make their own food! This process is called **photosynthesis**.

They use water, sunlight and carbon dioxide (a gas in the air) to produce food in their leaves.

Animals and Photosynthesis



Human Food



What kind of foods do humans need?



Food is commonly divided into **five** food groups.
How many of the food groups can you remember? .

Human Food

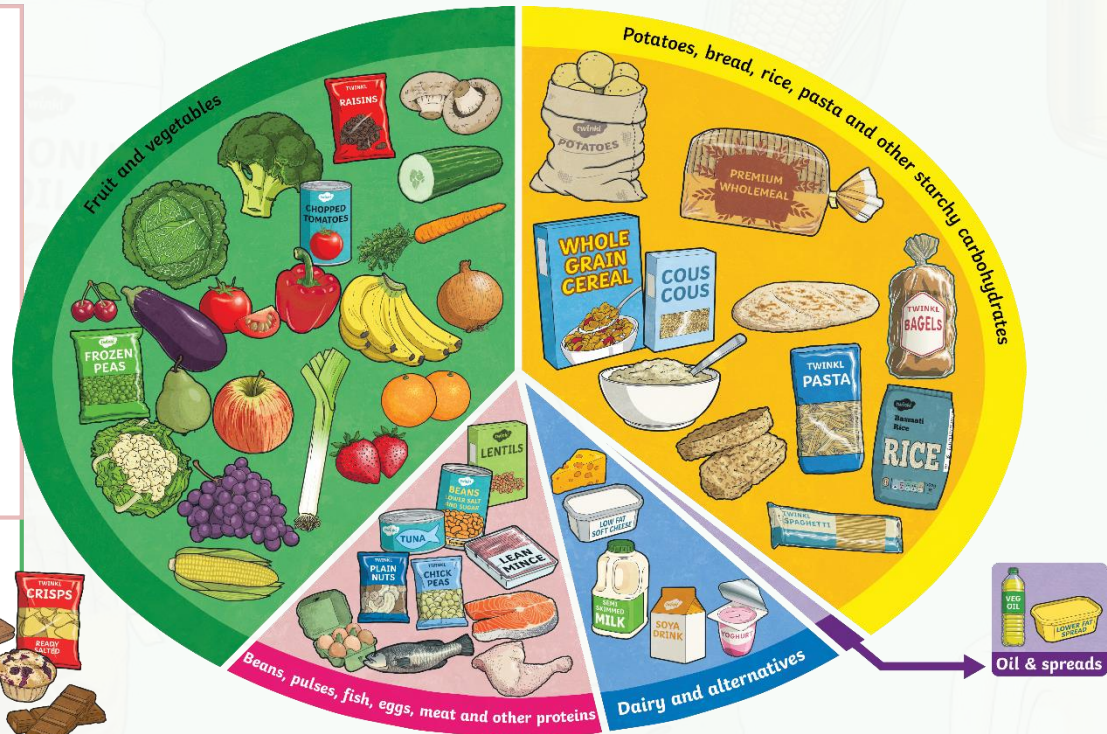


What kind of foods do humans need?

Beans, pulses, fish, eggs, meat and other proteins

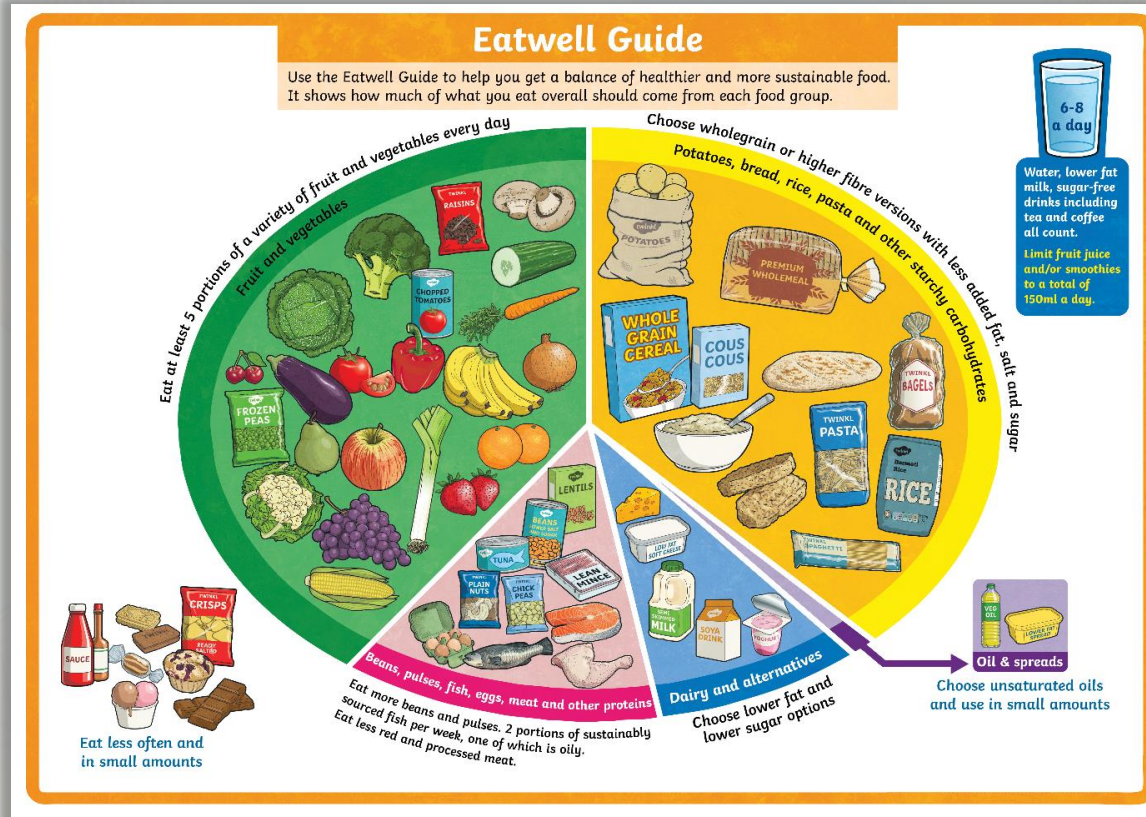
These are very important for helping us grow and build muscles. Try to eat 2 portions of fish a week and try to reduce intake of red and processed meat.

Healthy. Limit fruit juice and/or smoothies to 150ml a day.



Why do you think foods that are high in sugar and/or fat are not a food group?

Food Groups



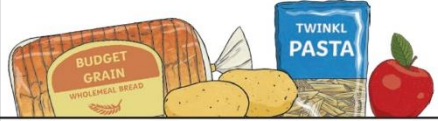






The Eatwell Guide helps us to make decisions about how to make sure we eat the

Notice that drinking plenty of water is also very important to keep us healthy.

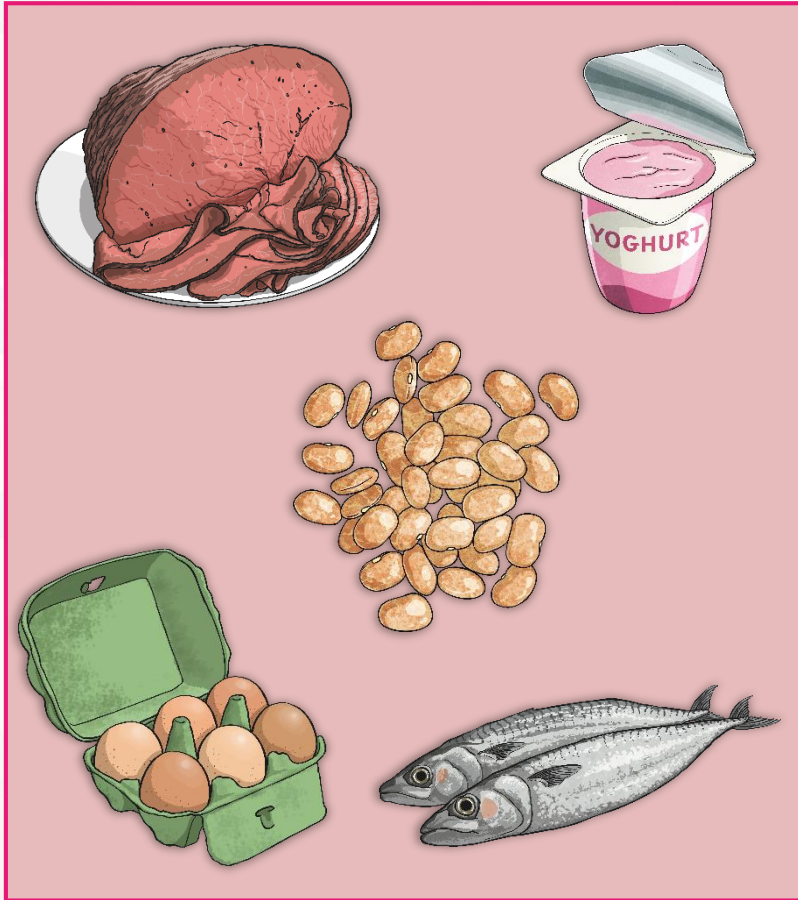
Types of Nutrients

Nutrients are substances that animals need to stay alive and stay healthy. These nutrients are found in the foods we eat.

There are seven nutrients.

Nutrient	Found in... (examples)
carbohydrates	
protein	
fibre	
fats	
vitamins	
minerals	
water	

Types of Nutrients - **Proteins**



**Proteins help your body
to grow and repair itself.**

Foods high in protein
include:

Red Meat
Fish
Beans
Yoghurt

Types of Nutrients - Carbohydrates



Carbohydrates give you energy.

Foods high in carbohydrates include:

Bread
Pasta
Fruit
Potatoes

Types of Nutrients - Fats

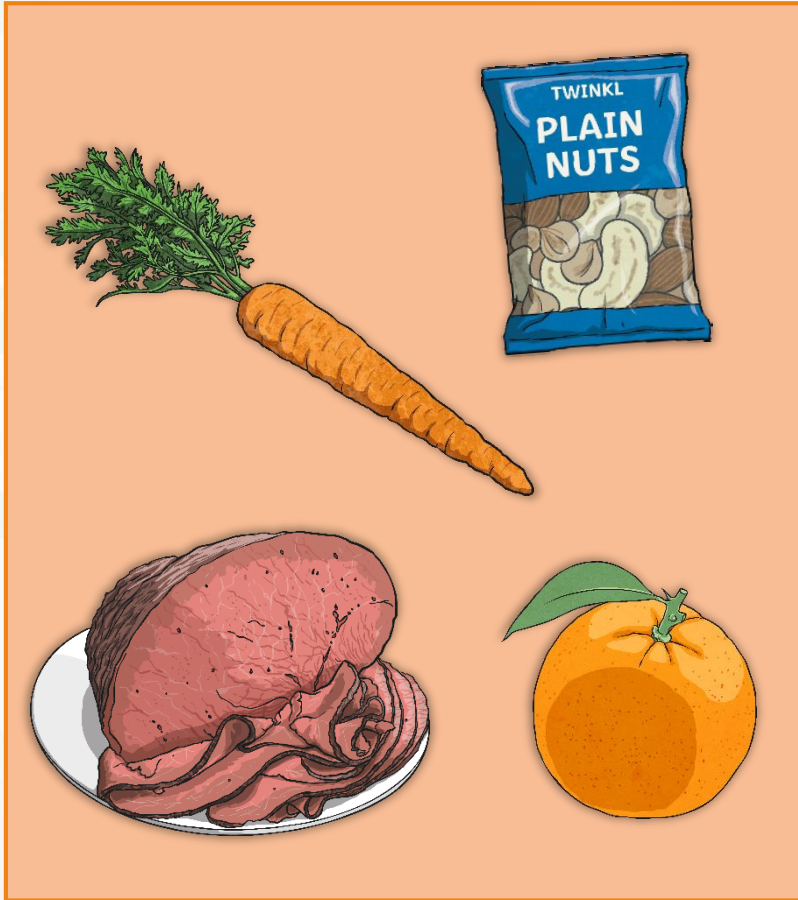


Fats give you energy.

Foods high in fats
include:

Nuts
Oils
Avocados
Butter

Types of Nutrients - **Vitamins**

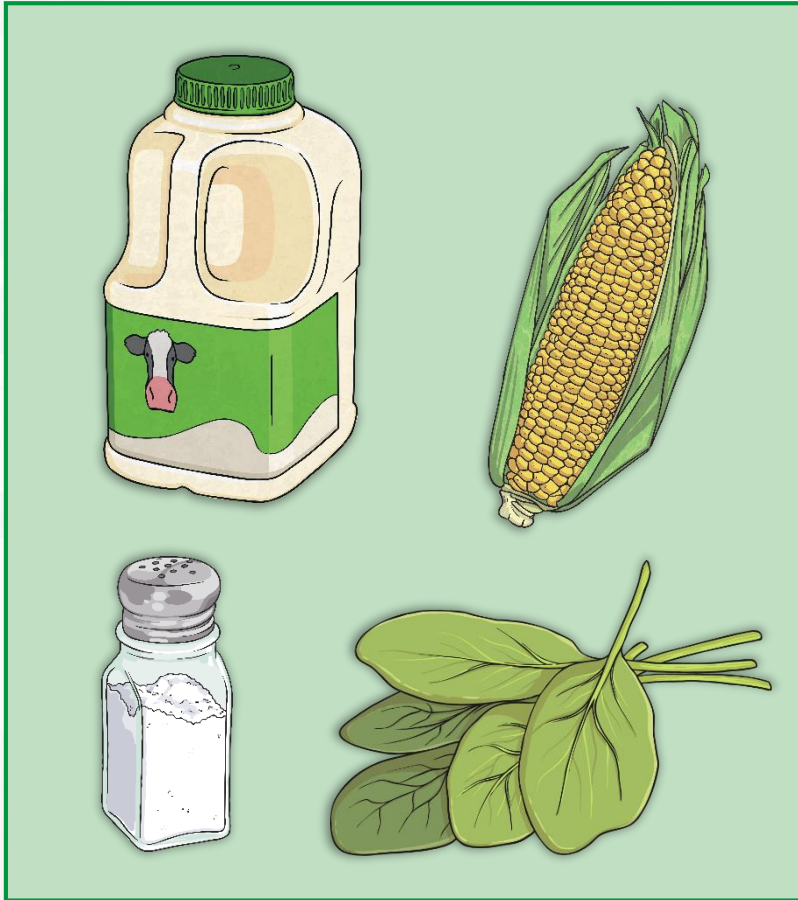


**Vitamins keep your
body healthy.**

Foods high in vitamins
include:

Oranges
Carrots
Beef
Nuts

Types of Nutrients - Minerals

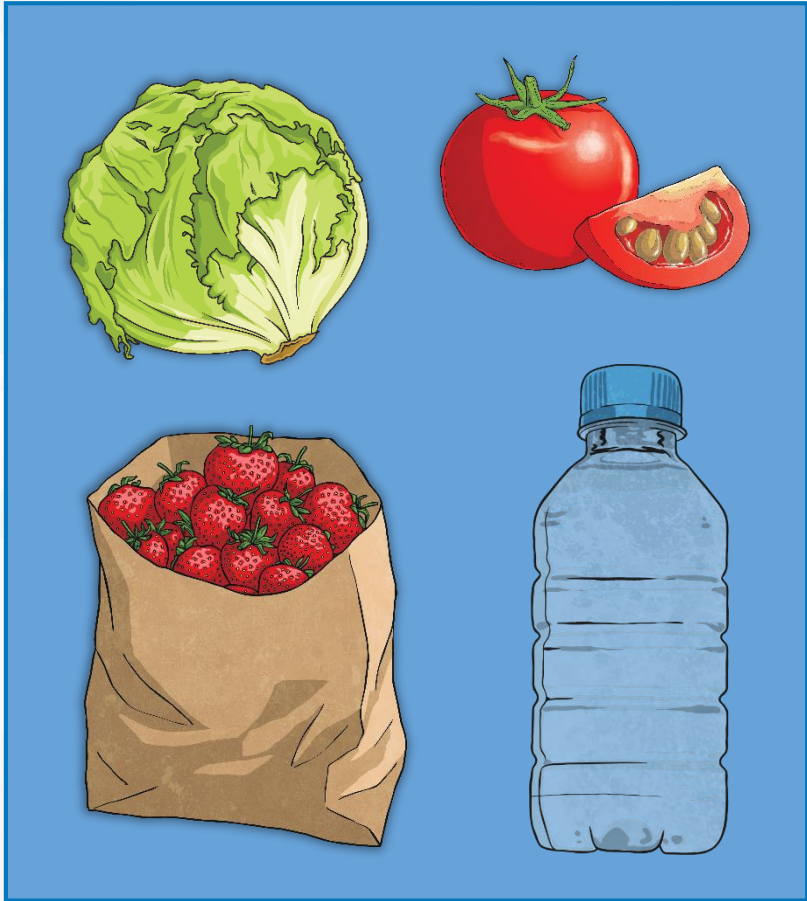


**Minerals keep your
body healthy.**

Foods high in minerals
include:

Milk
Spinach
Salt
Sweetcorn

Types of Nutrients - **Water**



Water helps to move nutrients in your body and get rid of waste that you don't need. It is an essential nutrient for our survival. While it is really important to drink plenty of water, it is also important to remember that many foods contain water also.

Foods high in water include:

Tomatoes
Cucumbers
Lettuce
Strawberries

Types of Nutrients - Fibre



**Fibre helps you to digest
the food that you
have eaten.**

Foods high in fibre include:

Cereal
Apples
Wholegrain bread
Lentils

Food Groups and Nutrients



Within each food group, there are many foods which contain more than one type of nutrient.

For example, eating broccoli from the fruit and vegetables section would provide with various different nutrients. This food is a great source of minerals (especially a mineral called potassium), a really good source of vitamins and it provides the body with fibre.



What do Nutrients do For us?



Nutrient type	Food that provides nutrient		Why we need it
Protein			
Carbohydrate			
Fats			
Vitamins			
Minerals			
Water			
Fibre			

Open the 'Types of Nutrition' worksheet and complete the activity. You can flick back through the Powerpoint to help you.

Nutrients for Animals



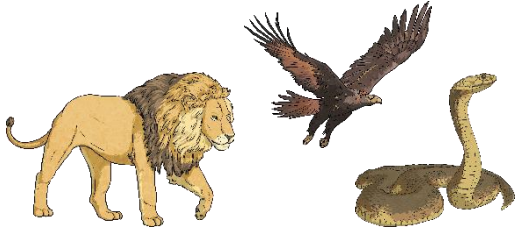


Although the Eatwell Guide provides human beings with guidance to know how much of different kinds of foods to eat, the guide does not apply to other animals.

Some animals need to eat more of certain nutrients than others. There are special terms for animals that eat particular types of foods.

Carnivores: These animals feed on other animals.

Herbivores: These animals only eat plants.

Omnivores: These animals eat both meat and plants.

Carnivores	Herbivores	Omnivores
		

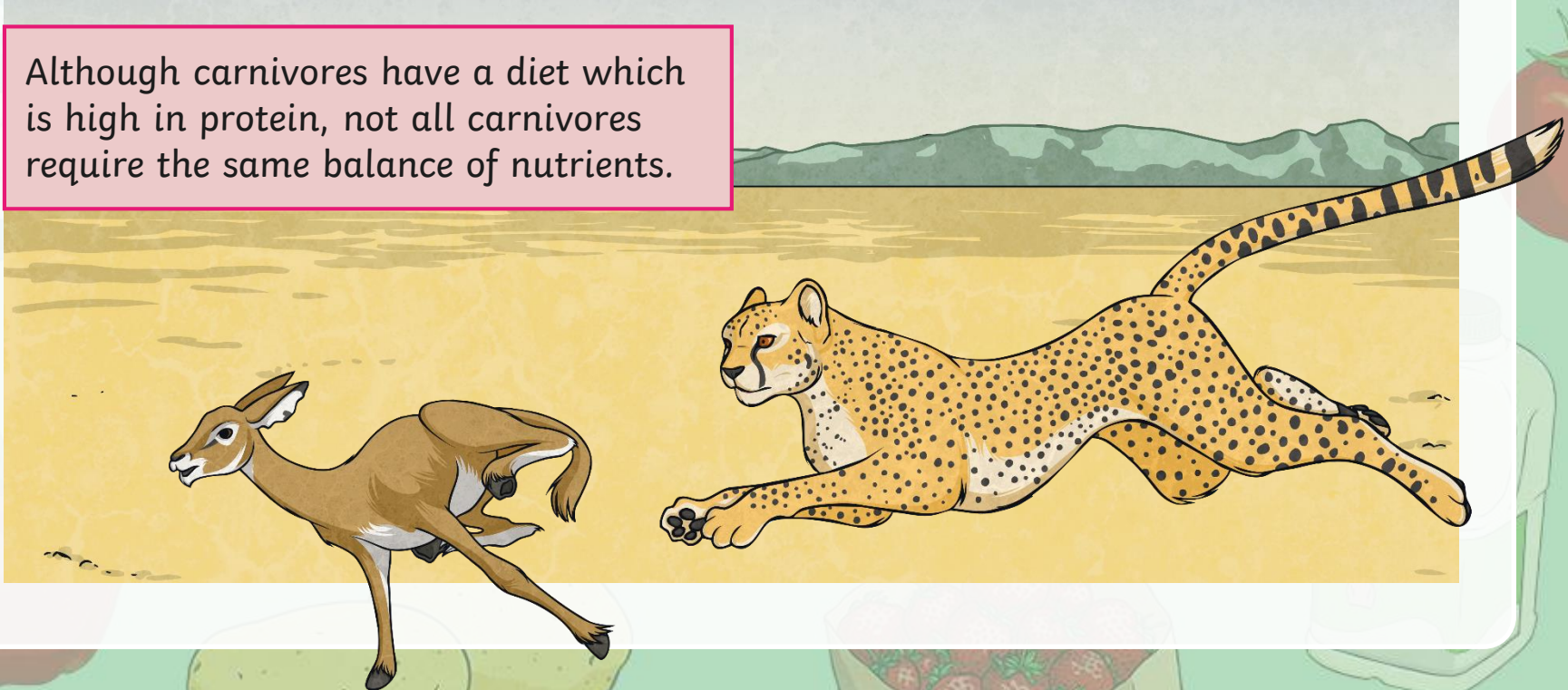
Nutrients for Animals



Carnivores eat lots of meat so they get lots of their energy from protein rather than from carbohydrates. Their bodies are designed for this.

A carnivore's diet is mostly made up of protein but meat also provides vitamins, minerals and fats.

Although carnivores have a diet which is high in protein, not all carnivores require the same balance of nutrients.

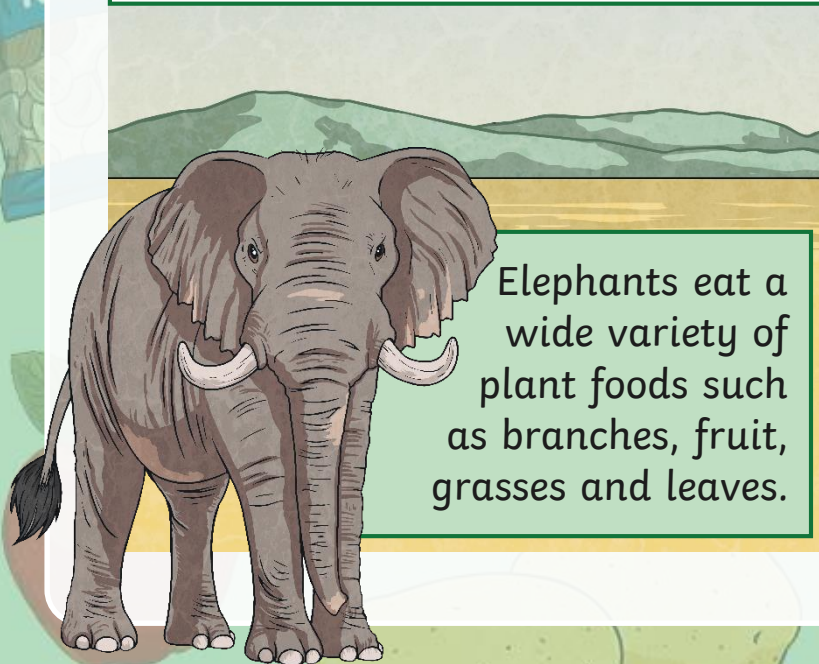


Nutrients for Animals



Herbivores get their energy from eating plants. As plants are often not high in carbohydrates, protein and fats, herbivores have to eat large amounts of plant-based foods to get the energy they need. Some herbivores spend a lot of their day eating.

While some herbivores eat a wide variety of plants, others will only eat a limited number of types, meaning that they consume a smaller range of vitamins and minerals.



Elephants eat a wide variety of plant foods such as branches, fruit, grasses and leaves.

Koalas, on the other hand, only eat eucalyptus tree leaves. These leaves do not provide high levels of energy for these animals but as koalas sleep for twenty hours a day, they need less energy than other animals.



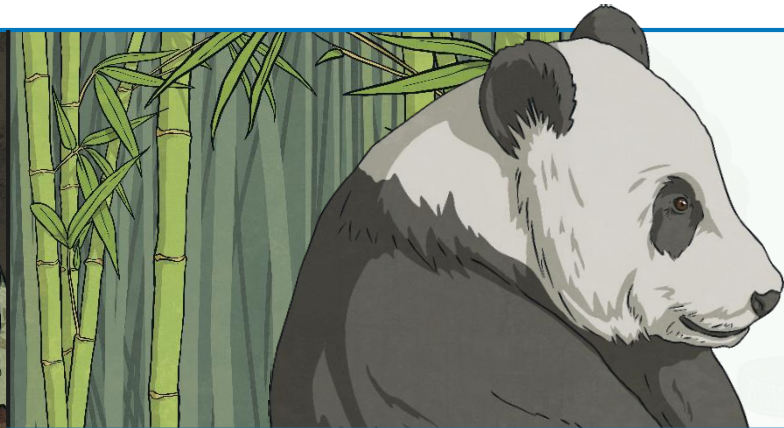
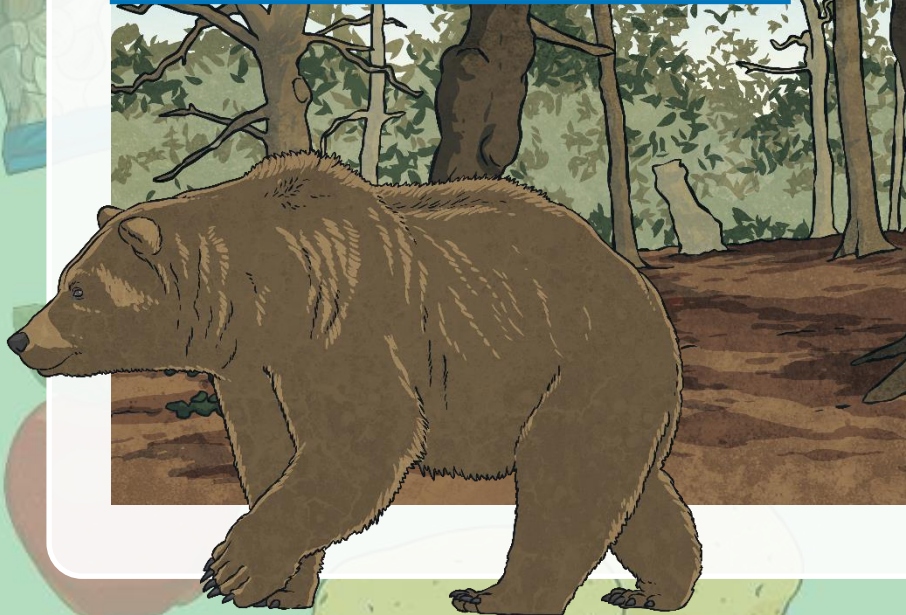
Nutrients for Animals



Omnivores get their nutrients from both meat and plants. Omnivores can therefore be more flexible in what they eat, often only eating what is available to them.

For example, a brown bear will eat fish when it can catch them in a river, but it will also pick berries to eat if they are available.

Different omnivores vary in the balance of nutrients they require.



Even pandas, who are famous for eating bamboo for most of their day, occasionally eat rats or birds they catch or find.

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