

Animals including Humans - Knowledge Organiser

Five Main Food Groups

Fruit and vegetables: provide vitamins and minerals which keep your body healthy.

Carbohydrates: foods that give us energy. There are two types of carbohydrates: sugars and starches.

Protein: helps the body to build and repair muscles.

Dairy: provided the body with calcium which can help form healthy bones and teeth.

Fat: healthy fats provide energy whilst unhealthy fats can cause weight gain if eaten too often.

Nutrients: the substances in food that our bodies use to enable it to function.

Nutrients

Carbohydrates
Protein
Fats
Vitamins
Minerals
Water
Fibre

Water: all types of food contain water. Animals need water to transport food and oxygen to all their body cells; remove waste from their bodies; protect joints and organs; and help them stay at the same temperature if they're warm blooded (like us).

Bones: living tissue that makes up the skeleton and grows with it.

Carnivore: an animal that eats lots of meat which provides it with lots of protein.

Herbivore: an animal that eats lots of plant-based food. Their diet is not high in carbohydrates, protein and fats so they need to eat a lot to get the energy they require.

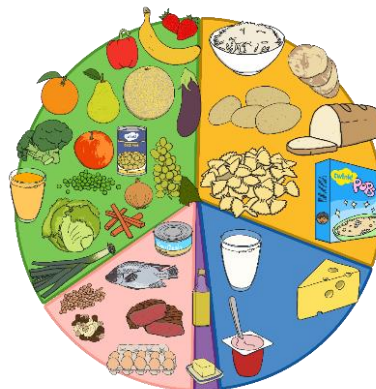
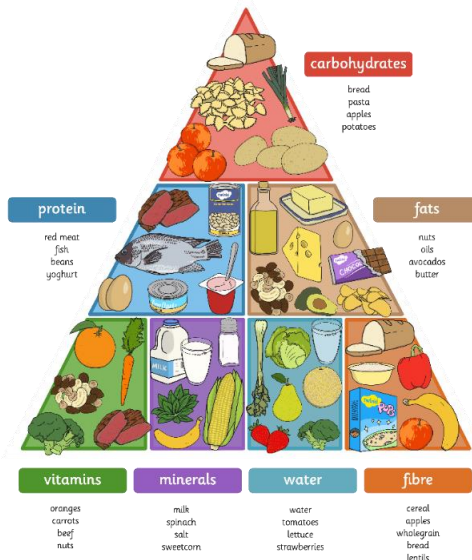
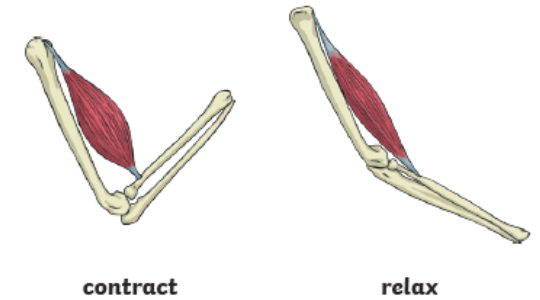
Invertebrates: creatures without backbones (spines).

Vertebrates: animals that have backbones (spines).

Skeletons do three important jobs:

- protect organs inside the body;
- allow movement;
- support the body and stop it from falling on the floor.

Skeletal **muscles** work in pairs to move the bones they are attached to by taking turns to contract (get shorter) and relax (get longer).



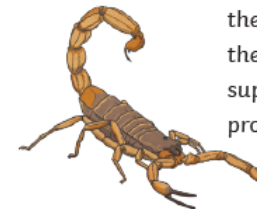
vertebrate
↓
endoskeleton – a skeleton on the inside of the body that supports and protects it



Involuntary muscle: a smooth muscle that contracts without conscious control and found in walls of organs such as the stomach, intestine and bladder. The cardiac muscle (the heart muscle) is also an involuntary muscle.

Voluntary muscle: these are **skeletal muscles** which are attached to bones to help them move.

invertebrate
↓
exoskeleton – a skeleton on the outside of the body that supports and protects it



hydrostatic skeleton – a skeleton made up of a fluid-filled compartment in the body called a coelom, mainly found in soft-bodied animals

