Light

SCIENCE

Key Vocabulary

Light- the form of energy that makes it possible for the eye to see

Light source– anything that makes light

Dark- having little or no light

Absence of light– there is no light

Transparent -letting light pass through

Translucent- letting only some light through

Opaque- not letting light pass through

Shiny- reflecting or glowing with light

Matt– dull without s shine

Surface- top layer of something

Shadow- the dark image cast on some surface by a person or thing blocking the light

Reflect- to throw back from a surface

Mirror- a smooth surface that reflects an image

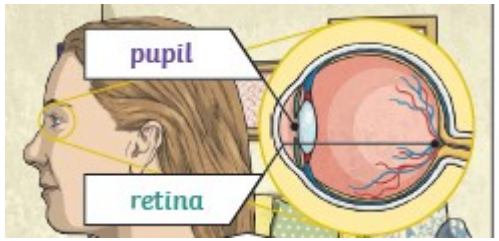
Sunlight- the light of the sun

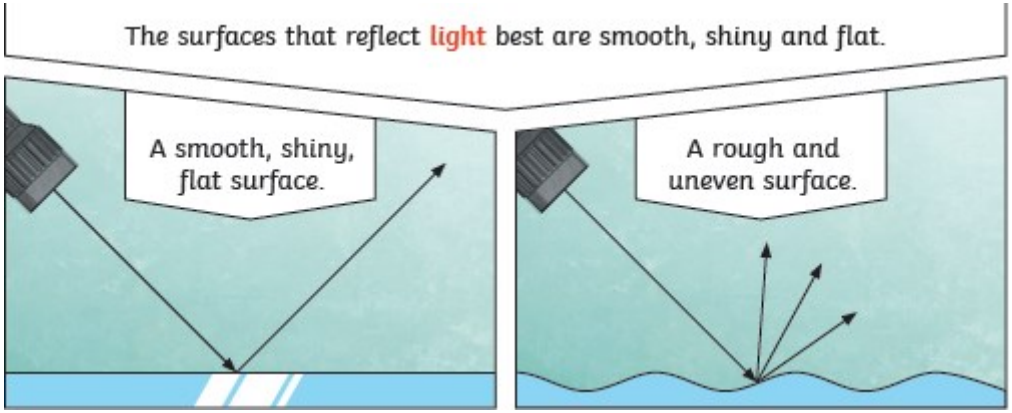
Dangerous- likely to cause harm

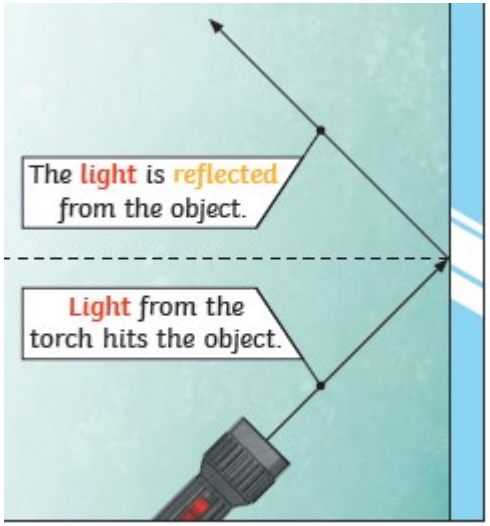
What I should already know?

The basic parts of the human body and say which part of the body is associated with each sense. (Year 1 - Animals, including humans)

Key learning points.







Animals Including Humans SCIENCE

Key Vocabulary

Nutrition- process of eating and using the nutrients in food for living and growing

Nutrients- something in food that helps people:

Carbohydrate, protein, fats, vitamins, minerals, water, fibre

Sugars- a sweet substance in a crystal form that comes mainly from sugar cane and sugar beets

Skeleton- the inner framework of bones and cartilage in vertebrate animals

Bones- the hard tissue that forms the skeleton

Muscles- tissue in the body of animals and humans that moves parts of the body

Support– to hold up

Protect- to defend or keep safe

Move- to change position or place

Skull- the bony framework of the head

Ribs- set of bones that curve from the spine around the chest

Spine– the backbone

Joints- a place or point where two or more parts come together or are connected

What I should already know?

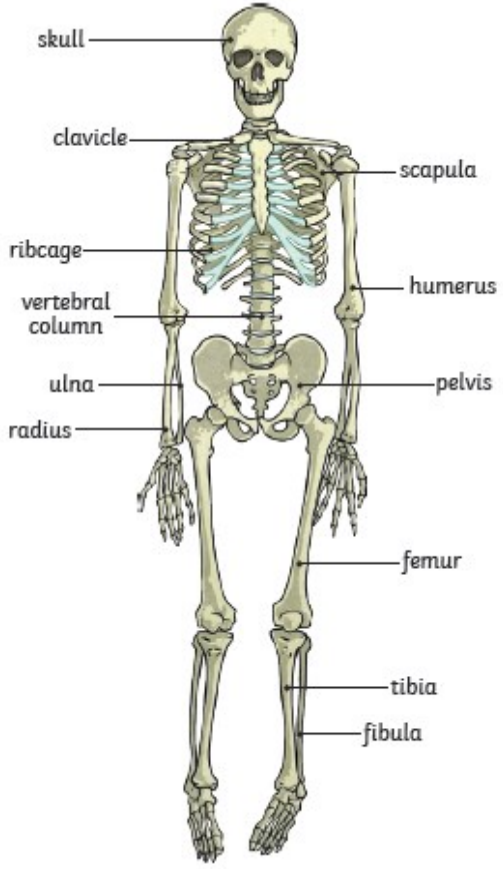
Year 1 Animals Including Humans

• A variety of common animals including fish, amphibians, reptiles, birds and mammals. A variety of common animals that are carnivores, herbivores and omnivores. The structure of a variety of common animals

Year 2 Animals Including Humans

• The basic needs of animals, including humans, for survival (water, food and air). The importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Nutrient	Found in... (examples)	What it does/they do
carbohydrates		provide energy
protein		helps growth and repair
fibre		helps you to digest the food that you have eaten
fats		provide energy
vitamins		keep you healthy
minerals		keep you healthy
water		moves nutrients around your body and helps to get rid of waste



Rocks and Soils

SCIENCE

Key Vocabulary

Rock- a solid mass made up of minerals

Stone- hard matter formed from mineral and earth material

Pebble- a small, smooth rock rounded by the action of water

Boulder- a large, rounded rock

Grain- any tiny, hard piece of something

Crystals– solids where the molecules fit together in a repeating pattern

Hard- not soft; solid; firm; tough

Soft- easy to bend or to shape

Texture- the feel or look of a surface

Absorb water— to take in or soak up.

Soil- the top layer of the earth's surface

Fossil- the remains or trace of a living animal or plant from a long time ago

Marble- a kind of stone that can be cut and polished to a hard, shiny surface

Chalk- a soft, white limestone

Granite- a hard stone made by the activity of volcanoes

Sandstone- rock that is formed mostly of sand

Slate- a rock that tends to split in smooth layers

Soil– the top layer of the earth's surface

Peat- soil from a wet area that is made up of decayed plants

What I should already know?

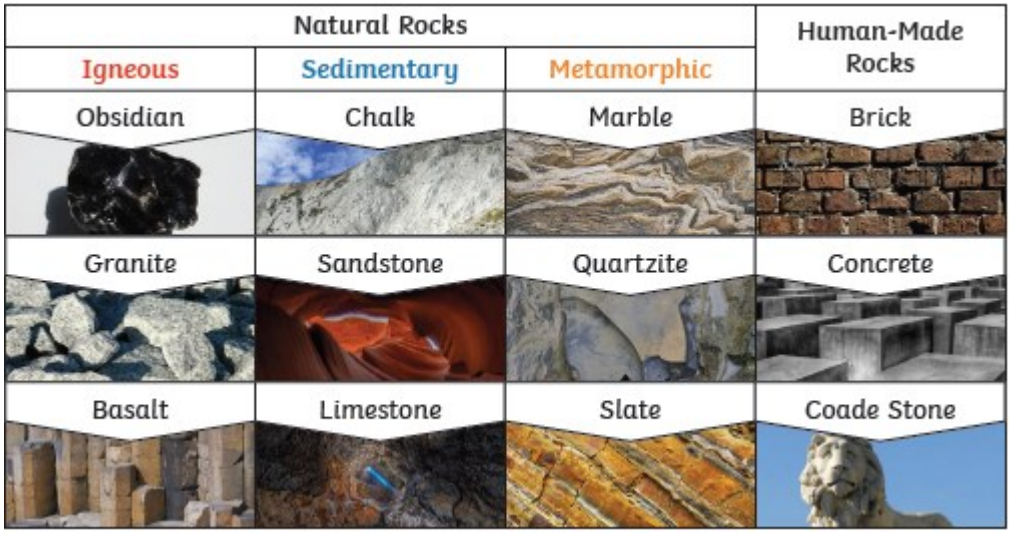
Year 1 Everyday Materials

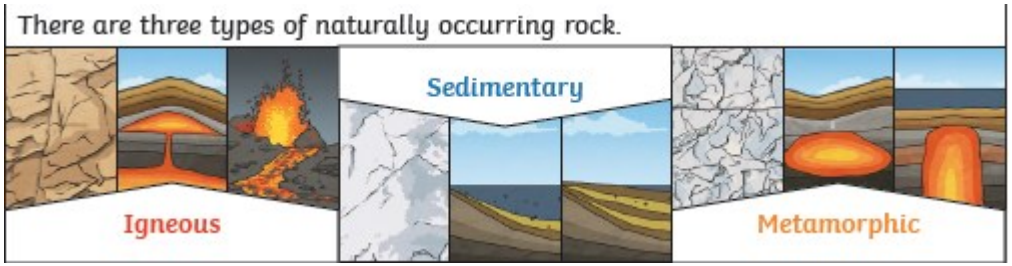
• The difference between an object and the material from which it is made. A variety of everyday materials, including wood, plastic, glass, metal, water, and rock. The simple physical properties of a variety of everyday materials. A variety of everyday materials on the basis of their simple physical properties.

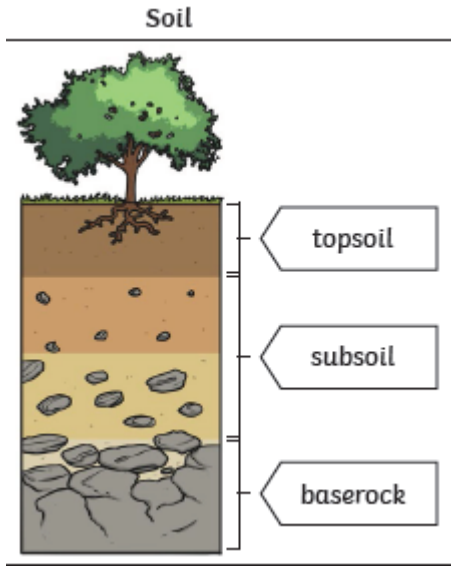
Year 2 Everyday Materials

• The suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Key learning points.







Plants

SCIENCE

Key Vocabulary

Photosynthesis- the process by which a green plant uses sunlight to change water and carbon dioxide into food for itself

Pollen- the fine, yellow powder made by a flowering plant

Insect- a small animal whose body is divided into three parts

Wind pollination– pollen moves in the wind to another plant

Seed formation– the last step of the reproduction in plants

Seed dispersal– the movement of seeds away from the parent plant.

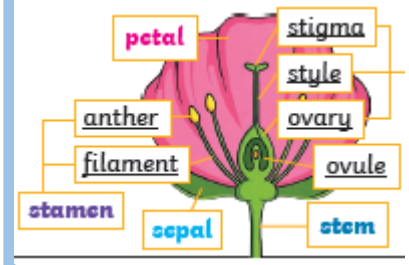
wind dispersal, animal dispersal, water dispersal

What I should already know?

- How seeds and bulbs grow into mature plants.
- How plants need water, light and a suitable temperature to grow and stay healthy.

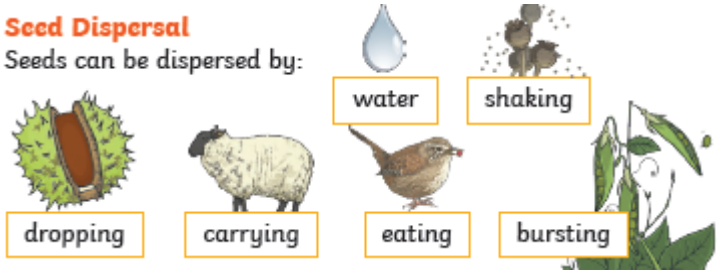
Year 2 Plants

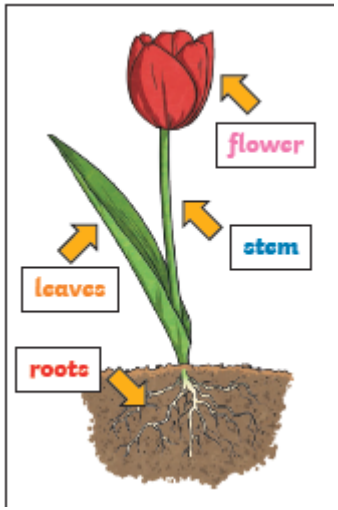
Key learning points.



Seed Dispersal

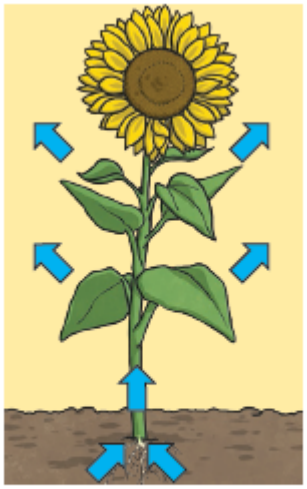
Seeds can be dispersed by:





How Water Moves through a Plant

1. The **roots** absorb water from the soil.
2. The **stem** transports water to the **leaves**.
3. Water **evaporates** from the **leaves**.
4. This **evaporation** causes more water to be sucked up the **stem**.



The water is sucked up the **stem** like water being sucked up through a straw.

Life Cycle of a Flowering Plant

Germination
The seed starts to grow.

Growing and Flowering
The plant grows bigger and forms a **flower**.

Pollination
Pollen from the anther lands on the stigma and travels down the style.

Fertilisation and Seed Formation
The pollen joins with an ovule and a seed starts to form.

Seed Dispersal
The fully formed seeds are moved away from the parent plant.

Forces and Magnets

SCIENCE

Key Vocabulary

Force- a push or a pull on an object

Push- to use pressure against in order to move

Pull- to take hold of (something) and use force to bring it nearer

Twist- to bend or turn (a single thing) in opposite directions

Contact force– two or more objects touch

Non-contact force– a force that affects something from a distance (gravity)

Magnetic force– the area around a magnet where there is a force.

Magnet- an object that has the power to pull items made of iron toward it-self.

Strength– how strong a magnet is

Repel- to ward off or force back

Magnetic material– objects with mag-netic qualities

Metal– minerals like iron or lead

Iron- a heavy grey metal

Steel- a hard, strong metal made from iron mixed with carbon

Poles (North pole/ South pole)- either end of a planet's axis.

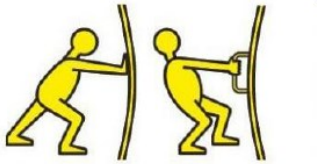
Types of magnets:

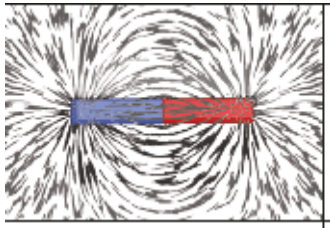
Bar magnet, Ring magnet, Button mag-net, Horseshoe magnet

What I should already know?

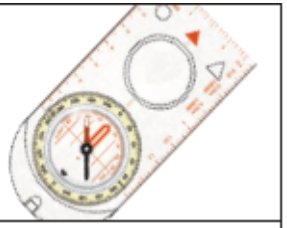
How the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
(Year 2 - Uses of everyday materials)

Key learning points.

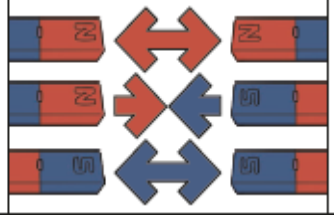




Like poles repel.
Opposite poles attract.



A magnetic field is invisible. You can see the magnetic field here though. This is what happens when iron filings are placed on top of a piece of paper with a magnet underneath.



The needle in a compass is a magnet. A compass always points north-south on Earth.

The driving force pushes the bicycle, making it move.

Friction pushes on the bicycle, slowing it down.

Non-magnetic ✗

These objects do not contain iron, nickel or cobalt.

Magnetic ✓

These objects contain iron, nickel or cobalt. Not all metals are magnetic.