

Year 3 Knowledge Organisers

Summer 2024



Lesson Sequence



1. Identify the difference between light sources and non-light sources



2. Explore the light that comes from the sun and how to stay safe



3. Explore materials which are reflective



4. Discover how shadows are formed



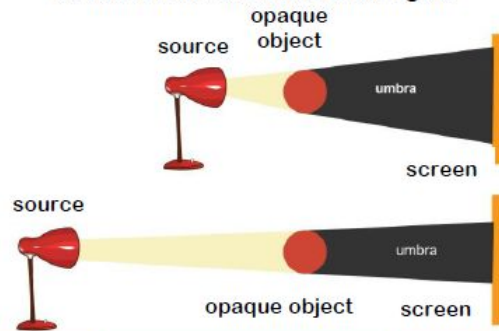
5. Investigate how shadows change throughout the day



6. Investigate how you can change the size of a shadow

Size of a shadow changes

A shadow is caused when light is blocked by an opaque object. A shadow is larger when an object is closer to the light source. This is because it blocks more of the light.



Key Facts

We need light to be able to see things. Light travels in a **straight line**. When light hits an object, it is reflected (**bounces off**). If the reflected light hits our eyes, we can see the object. Some surfaces and materials reflect light well. Other materials do not reflect light well. **Reflective surfaces** and materials can be very useful. Remember the Sun can be dangerous.



Mirrors and reflection

Mirrors reflect light very well, so they create a clear image. An image in a mirror appears to be reversed. For example, if you look in a mirror and raise your right hand, the mirror image appears to raise its left hand.

TRANSPARENT
ALL light passes through



TRANSLUCENT
SOME light passes through



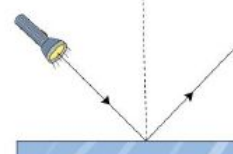
OPAQUE
NO light passes through



Light is reflected from surfaces

Light from the torch hits the object.

The light is reflected from the object.



regular reflection



irregular reflection



Unit Rocket Words: Year 3 – Light



Rocket Words

light	a form of energy that allows our eyes to see
reflect	the process that describes light bouncing off a surface
vitamin D	a vitamin that come from sunlight or food and important for bone strength
ultraviolet rays	type of light that can be harmful
fluorescent	gives a highly visible reflection of light
high visibility	can be seen easily
shadow	a dark image that is formed when an object blocks the light
ray	a thin beam of light
cast	to throw or project
position	where something is placed
shape	the outline of something
puppet	a doll that looks like a person or an animal



Lesson Sequence



1. Explore contact and non-contact forces



2. Compare how things move on different surfaces



3. Explore different types of magnets



4. Explore the properties of magnets and everyday objects that are magnetic

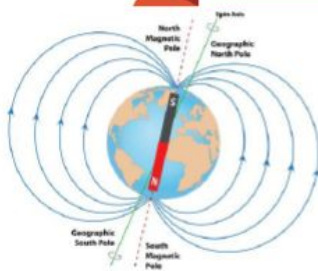


5. Understand that magnetic forces can act at a distance



6. Explore the everyday uses of magnets

How do magnetic poles work?



The ends of a magnet are called poles. One end is called the north pole and the other end is called the south pole. Opposite poles attract; similar poles repel. If you place two magnets so the south pole of one faces the north pole of the other, the magnets will move towards each other. This is called attraction. If you place the magnets so that two of the same poles face each other, the magnets will move away from each other. They are repelling each other.

Forces

- Forces act in opposite directions to each other.
- When an object moves across a surface, **friction** acts as an opposite force. Friction is a force that holds back the **motion** of an object.
- Some surfaces create more friction than others, meaning that objects move across them more slowly.
- On a ramp, the force that causes the object to move downwards is gravity.
- Objects move differently depending on the **surface** of the object itself and the surface of the **ramp**.

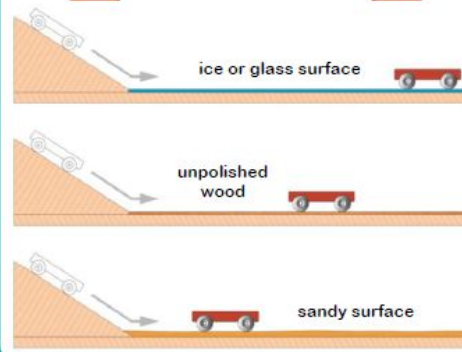
non-magnetic



magnetic



Friction

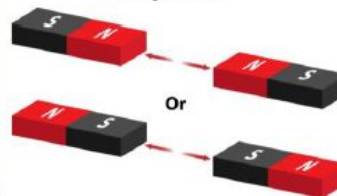


Magnetic Forces

Attraction



Repulsion





Unit Rocket Words: Year 3 – Forces and Magnets



Rocket Words

force	a power or strength that can cause an object to move
friction	the force that pulls backwards when objects rub against each other
motion	the process of movement
texture	the feel or look of a surface
magnet	an object that can pull some metal items towards it
attract	to pull towards
repel	to force back or push away
magnetic field	the force that surrounds a magnet and attracts magnetic objects
non-contact force	a force that occurs without objects touching each other
magnetism	the force of a magnet
compass	an instrument which shows direction
orienteering	a sport where you have to find your way across a route with the aid of a map and compass

Geography:

Knowledge organiser – Modern Day Egypt

What will we be learning?

- The location of Africa and its countries.
- Why tourists visit Egypt.
- The reasons why people migrate to Egypt.
- The features of Egypt's varied landscape.
- The main features of Cairo.
- To compare daily life in Cairo with my own.

Key knowledge

Modern-day Egypt is a country in Africa. Its capital city, Cairo, is rich in sites of human and historical interest.

Egypt has a warm climate and varied landscape. In the north it has a coastline with the Mediterranean Sea, and in the east with the Red Sea, making it a popular destination for tourists.

It has also become a place that people migrate to from countries such as Syria. There are many reasons that can push and pull people away from their homes to live somewhere else.



Place names	Geographical terms and processes	Locational terms
Cairo Africa Continent Egypt Mediterranean Sea Red Sea	currency migrant retail service industry tourism	easterly northerly southerly westerly

Glossary

border: A line that separates two countries. You may need a passport to pass from one country to the other.



Key Vocabulary

Archaeologist:	Someone who studies artefacts from the past.
artefact:	An object made by a person that is of historical interest.
bronze:	A metal alloy made by mixing copper and tin.
Bronze Age Collapse:	A period at the end of the Bronze Age, when society collapsed in Britain and Europe.
Celts:	A group of people who travelled from Europe and brought their ironworking skills to Britain.
circa:	Abbreviated to 'c' and used before a date to show that the date is approximate. For example c2500 BC
hillfort:	A settlement built on a hill that is protected by ditches and fences.
Stone circle:	A circular arrangement of standing stones.
sacrifice:	An animal or person that has been killed and offered to a god or gods.
torc:	A rigid neck ring made from metal.

DID YOU KNOW?

The Romans invaded and conquered Britain in AD 43. They created written records so this ended prehistory in Britain.

The Bronze Age

Tools and weapons: Bronze tools were sharper, stronger and more efficient than stone tools. Bronze tools were owned by the wealthy.

Everyday life: The Beaker folk brought their knowledge of metalworking and pottery making to Britain. Bronze tools made farming more efficient, so there was more food and the population grew.

Settlements: People lived in permanent settlements, in roundhouses. They used walls and fences to protect their homes.

Beliefs: People were buried with objects, including Bell Beaker pottery, to use in the afterlife. They threw weapons and objects into rivers as offerings to the gods.

End of the Bronze Age: People stopped using metal during a time called the Bronze Age collapse

The Iron Age

Tools and weapons: Iron tools and weapons were sharp and strong. Everyone could own iron tools and weapons, not just the wealthy.

Everyday life: Iron tools made farming more efficient and iron weapons were available to everyone. Tribes attacked each other to steal their land, food and possessions. People created art, music and poetry.

Settlements: People lived in hillforts surrounded by ditches and fences to stop attacks from enemy tribes. People lived in roundhouses inside the hillfort and farmed the land outside.

Beliefs: Priests called druids led worship. Humans were sacrificed as offerings to the gods. People threw offerings into rivers and lakes.

End of the Iron Age: The Romans invaded and conquered Britain in AD 43. They created written records so this ended prehistory in Britain.