

Key vocabulary

Force - A force is a push or pull that causes a change in speed, direction or shape.

Magnet - Magnets can either attract or repel each other

Attracts - To attract is to exert a force that draws something in, like the way a magnet attracts a paper clip

Magnetism - magnetism is a force that can attract (pull closer) or repel (push away) objects that have a magnetic material like iron inside them (magnetic objects).

north pole/ south pole - The ends of a magnet are called its poles. One end is called the north pole, the other is called the south pole. If you line up two magnets so that the south pole of one faces the north pole of the other, the magnets will pull toward each other. Opposite poles attract each other, but similar poles repel.

Repel - to push back or away by a force

Science: Forces and Magnets

Key questions

Can you use a magnet to move an object?

What happens if you put two magnets together?

Which everyday materials are attracted to a magnet?

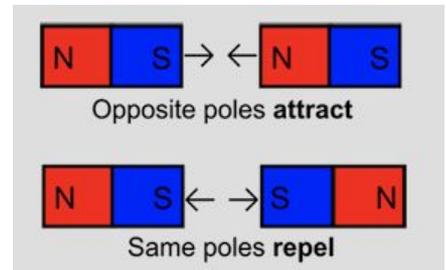
How does the surface affect the time it takes an object to slide down a slope?

Outcomes

- Notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Describe magnets as having two poles.
- Compare how things move on different surfaces.

Sticky knowledge

- Magnets have north and south poles. These attract each other but two north or two south poles repel each other.
- A force is a push or pull on an object which can cause it to move, change speed, direction or shape. Force is measured in Newtons (N).
- Magnets cannot pull or push anything made of wood, plastic and some other materials.
- Some metals are magnetic, but not all metals.
- When an object moves on a surface, the texture of the surface and the object will affect how it moves. This is friction.



Key vocabulary

Biome - A large naturally occurring community of flora and fauna occupying a major habitat, e.g. forest or tundra.

Flora- plant life occurring in a particular region or time

Fauna -the animals of a particular region, habitat, or geological period.

Ecosystem - An ecosystem is made up of all of the living and nonliving things in an area.

Climate - The general weather conditions prevailing in an area in general or over a long period.

Equator - The equator is an imaginary line around the middle of the Earth at an equal distance from the North Pole and the South Pole

Hemisphere - a half of the earth, usually as divided into northern and southern halves by the equator, or into western and eastern halves by an imaginary line passing through the poles.

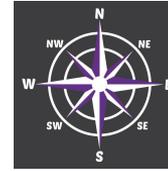
Temperature- the measured amount of heat in a place or in the body

Vegetation belt - Scientists divide the Earth's land into what are called vegetation regions. These areas have distinct types of plants, soil, and weather patterns.

Geography: Forest Biomes

Key questions

- Where are the forests located in the UK?
- How do the location of regions and biomes affect the climate?
- What are the different biomes on planet Earth?
- How do you use a compass?
- How has land use changed over time?



Sticky knowledge

The world is divided up into major ecosystems. These large-scale ecosystems are called biomes.

The forest biome includes habitats that are dominated by trees and other woody plants.

Land can be used for recreational, transport, agricultural, residential, and commercial use.

Latitude is a geographic coordinate that specifies the north–south position of a point on the Earth's surface

Tropical climates are located near the Equator and receive more sun year-round than anywhere else on Earth, while polar climates are the farthest from the Equator and receive the least sunlight and heat of any part of the globe.

Outcomes

- Describe and understand the human and physical features of a forest biome through a local study
- Name and locate key forests within the UK (country, counties and nearest city).
- Describe and understand the human and physical features of a North or South American forest biome through a study
- Locate key countries of North and South America, using maps.
- Identify the position and significance of latitude, Equator, Northern Hemisphere, Southern Hemisphere, Arctic and Antarctic circles.

Homework Grid.

Complete 2 for bronze, 4 for silver and 6 for gold!
Please hand in on Mondays

<p>Write a news report or story about a place where the climate has suddenly changed.</p>	<p>Draw and label 5 magnets used in everyday life in your home.</p>	<p>Pick a country and research its climate, borders, location and physical features.</p>
<p>Make a toy that relies on magnets for it to operate.</p>	<p>Create your own science experiment that tests friction. Friction is a force between two surfaces that are sliding, or trying to slide, across each other.</p>	<p>Draw a map of the world and label the continents.</p>
<p>Make a model of a biome. Can the class guess which biome you have chosen to create!?</p>	<p>Make a list of materials/items you have discovered that are magnetic and a list of materials/items that you discovered were not magnetic.</p>	<p>Take a photo of a woodland scene to put on our display.</p>