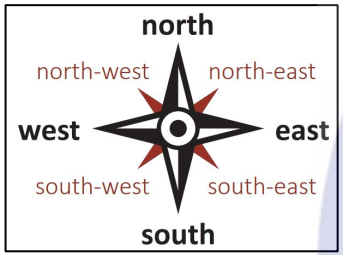
Geography

Knowledge Organisers

Year 3 Geography - Autumn Term 1: Our Planet, Our World

1. What are the 8 points on a compass called?



2. What are physical and human features in geography?

Physical features are caused by nature: beaches, cliffs and mountains. Human features are created by humans: houses, factories and train stations.

3. What is a county?

The UK is split into a number of smaller geographical areas called counties.

What is it like in the UK?

4. What are some of the cities in the UK called?

Cities in the UK include: Edinburgh, Belfast, St Davids and Birmingham.








5. What is land used for in the UK?

Five main types of land use include: agricultural, commercial, recreational, residential and transportation.

6. What can primary data and geographical evidence tell us?

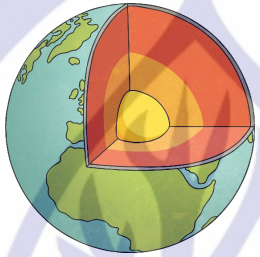
Primary data is data gathered by observation and investigation. Geographical evidence includes facts, information and numerical data.

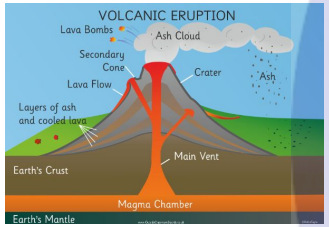
agricultural	city	commercial	compass	county	data
evidence	human	physical	recreational	residential	transportation

Year 3 Geography - Spring Term 1: Volcanoes

1. What are the four layers of Earth's structure?

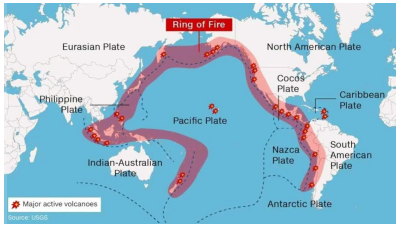
The Earth is made of four different layers: the inner core, outer core, the mantle and the crust.





2. What is the Ring of Fire?

The Ring of Fire refers to a large number of volcanoes which are formed on tectonic plate boundaries.



How do volcanoes shape our planet?

3. What is a volcano?

A volcano is an opening in the Earth's surface from which gas, hot magma and ash can escape. **Status:** dormant, active or extinct. **Types:** shield, stratovolcano, cinder cone and lava dome. **Volcanic eruptions:** effusive and explosive.

4. What are the features of volcanoes and why do they erupt?

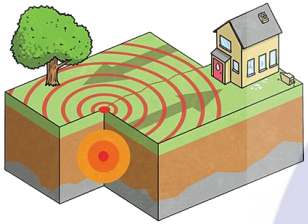
Features of volcanoes include the: ash cloud, crater, magma chamber, lava flow, main vent and conduit. Volcanoes erupt when molten rock called magma rises to the surface.

5. What impact can volcanoes have?

Volcanic eruptions are known as natural disasters. They can destroy habitats, homes and businesses and can change the landscape.

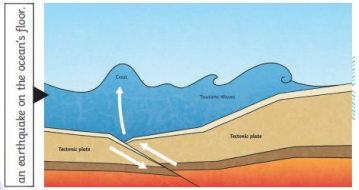
active	conduit	core	crust	dormant	erupt
extinct	lava	magma	mantle	tectonic plates	vent

Year 3 Geography - Summer Term 2: Earthquakes



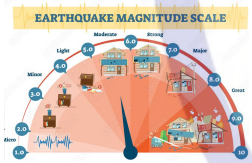
1. Earthquakes occur when two **tectonic plates** rub together. The point of origin is called the **focus**, the point above the focus is called the **epicentre**.

2. Earthquakes can have a huge **impact on humans** including physical and mental injury, damage to homes and essential services such as sewage treatment and road networks.

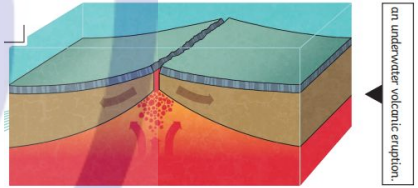


3. Earthquakes can trigger **tsunamis**, which are large **waves** which move ocean water.

How deadly can earthquakes be?



4. We can learn about the **impact** of earthquakes and tsunamis from recent recorded events.



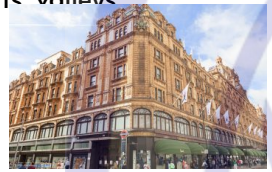
5. Countries which are **vulnerable** to earthquakes have systems in place to limit the negative impacts they might cause.

earthquake	**tectonic plates**	**wave**	**vulnerable**	**focus**	**sanitation**
tsunami	**physical impact**	**human impact**	**epicentre**	**devastation**	**debris**

Year 4 Geography - Autumn Term I: Interconnected World

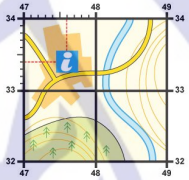
1. What human and physical features are there in the UK?

Human features include ports, tunnels, bridges, walls, shops, statues, railways, canals, roads, churches and cathedrals. Physical features include rivers, mountains, tors, cliffs, valleys.



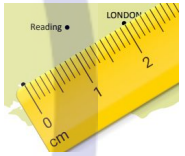
2. What is a 4-figure grid reference?

A four-figure grid reference contains four numbers. The first two numbers are found along the top and bottom and the second two numbers are found up both sides of a map.



3. What are the relative locations and distances between UK cities?

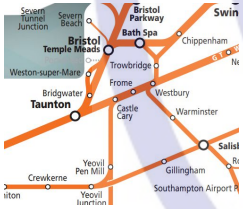
North to south, Dundee to Plymouth 675km and Liverpool to London 300km; west to east, Belfast to Liverpool 225km, Cardiff to Birmingham 150km and Wolverhampton to Norwich 225km.



How is the UK connected?

4. What does the UK rail network do?

Britain's railway network links major towns and cities across Britain and are sometimes linked to ferry interchanges and airports.



5. What is a canal?

A canal is a managed waterway. In Britain, canals were built during the Industrial revolution to transport raw goods. Locks, tunnels and aqueducts are all features of canals.

6. How can you prove/disprove a geographical hypothesis?

Fieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis.

aqueduct	canal	features	4-figure	grid-reference	hypothesis
locations	network	physical	rail	revolution	transport

Year 4 Geography - Spring Term 1: Winding Rivers

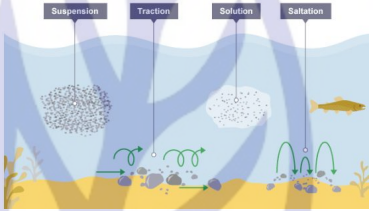
1. Name and define at least 3 features of rivers.

A river is a body of water that flows downhill, usually to the sea. The place where a river starts is called the source. Tributaries are small rivers or streams that flow into larger rivers or lakes. Meanders are bends in rivers. The place where a river flows into the sea is called the mouth.

2. How does a river change from the source to the mouth?

The upper course of a river is typically steep, narrow and rocky. The water is fast-flowing and turbulent. The middle course of a river is wider, deeper and curves in meanders. The water flows more slowly. The lower course of a river is flat and wide.

How do rivers affect the world around them?



3. How do rivers change the landscape?

Rivers, seas and oceans can transform a landscape through erosion, deposition and transportation.

4. Can you name and locate three major rivers around the world?

Significant world rivers include the Mississippi, Nile, Thames, Amazon, Ganges, Danube and Yangtze.

5. What causes flooding and what damage does it cause?

Flooding can happen for a wide variety of natural and human reasons including excessive rainfall, lack of river dredging, land use and the topography of the land. Flooding can cause a wide range of problems including damaging property and equipment, contaminating farmland and cutting people off from vital services and supplies of food and water.

river	meander	floodplain	source	mouth	tributary
erosion	sediment	deposition	transportation	Amazon River	River Nile

Year 4 Geography - Summer Term I: Misty Mountains

1. What is a mountain?

A mountain is a natural elevation of the Earth's surface. The highest point of a mountain is called the summit or peak. The bottom of the mountain where it meets flat or gently sloping land is called the base. Other features of mountains include the snow line, tree line and ridges.

Himalayas mountain range

2. Name five types of mountains and explain how each is formed.

There are five types of mountain: fold, fault-block, volcanic, dome and plateau. Each is formed in a different way.

How are mountains formed and how do people use them?

3. Name one UK and give three facts about it.

There are four mountain ranges in the UK that are home to each country's highest mountain: Ben Nevis, in the Grampian Mountains, Scotland; Scafell Pike, in the Cumbrian Mountains, England; Snowdon, in the Snowdonia Mountains, Wales; and Slieve Donard, in the Mourne Mountains, Northern Ireland.

4. Can you name and locate key mountains around the world?

Significant mountain ranges include the Himalayas, Andes, Alps, Pyrenees and Apennines.

5. What do you need to consider to go mountaineering?

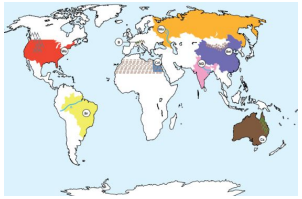
Mountaineering is a sport where people climb mountains. To go mountaineering you will need to pack appropriate clothing based on the weather forecast and likely conditions on your route. Without warning, there can be hazards caused by extreme weather, such as high winds, rain and snow. Depending on where you climb, there could be the risk of an avalanche, mudslides or falling rocks.

Mountain	Base	Tree Line	Ben Nevis	Himalayas	Mountaineering
Peak	Snow Line	Ridges	Snowdon	Alpes	Mountain Range

Year 5 Geography - Autumn Term 1: Investigating Our World

1. What is a country?

Countries are located within continents. Countries have capital cities and geographical features.



2. Where is Europe?

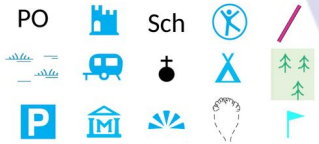
Europe is a continent in the Northern Hemisphere. It has over 50 countries such as Russia.

3. What are capital cities?

Capital cities are usually the seat of government of a country. They are large settlements with a wide range of human features and transport links and can be a centre for business and trade.

4. What do features on OS maps tell us?

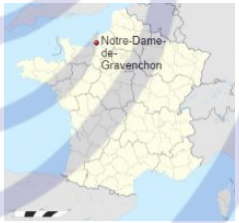
People use map symbols, grid references and compass directions to analyse and compare places and features on Ordnance Survey and other maps.



How does our locality compare to other European places?

5. Where is Gravenchon?

Notre-Dame-de-Gravenchon is a small industrial town in Normandy in northern France. It was twinned with Street in 1967.



6. How does Gravenchon compare to Street?

Maps, population census, photo analysis and interviews can help us to understand and compare what life is like in other places.

analyse	compass directions	continents	contour lines	Europe	Gravenchon
grid references	hemisphere	OS maps	settlements	symbols	transcontinental

Year 5 Geography - Spring Term 1: Sow, Grow and Farm

1. How is land used in the UK?

Land Use is how the land is used. Agricultural land use in the UK: **arable** (growing crops), **pastoral** (livestock) and **mixed** (arable and pastoral). An **allotment** is a small piece of land used to grow fruit, vegetables and flowers. **Crops** are farmed in the UK, such as **wheat, barley, oats**, potatoes, other vegetables, fruits and **oilseed rape**. **Livestock** are **reared** on farms in the UK, such as sheep, **dairy cattle, beef cattle, poultry** and pigs.

2. What is topography and how does it relate to the 3 main types of farming in the UK?

Topography describes the **physical features of an area of land**. These features typically include natural formations such as mountains, rivers, lakes, and valleys. Manmade features such as roads, dams, and cities may also be included. Topography often records the various elevations of an area using a topographical map.

What are the main types of farming in the UK and what challenges do they face?

3. What jobs do UK farmers do in the different seasons?

Farmers work throughout the year to rear animals and grow crops. The type of work they need to do changes with the seasons. Spring is the busiest time of the year on farm. Lambing and calving although you have to watch the crows and foxes don't attack and that the older animals don;t spread diseases. There are also crops to plant and fertilise.

4. What is the impact of modern farming methods in the UK?

Removing hedges - result in the loss of habitats or higher yields of crops.
Tillage - enables seeds to be planted easily but also means soil can wash away.
Fertiliser -enables plants to grow but can wash into rivers and pollute.

5. Why is Somerset suitable for producing cider apples?

Soil fertility, drainage and climate influence the placement and success of agricultural land. Somerset has the perfect conditions for growing. A mild climate and the right amount of sunlight and loamy - free-draining soil and plenty of bees.

agriculture	allotment	arable	autumn	beef	crops
dairy	lambs	spring	Soil	summer	topography

Year 5 Geography - Summer Term 1: Sow, Grow and Farm

1. What is a climate zone?

Climate zones are areas with distinct climates, weather patterns, latitude, plants and animals. The main climate zones are equatorial, tropical, desert, temperate and polar.

2. What are the 6 major biomes of North America?

Biomes are areas of the planet with similar **climates** , **landscapes** , **animals** and **plants** . What lives in each biome depends on:how **warm** or **cold** it is, how **dry** or **wet** it is,how fertile the **soil** is.**North America** is broadly categorised into **six major biomes:** tundra, coniferous forest, grasslands (prairie), deciduous forest, desert and tropical rainforest.

3. What is loamy soil?

Loamy soil contains the ideal mix of sand, clay and silt and is ideal for growing citrus fruits because it drains well.

What are the main challenges that face farmers in North America?

4. . What challenges are faced by developing countries?

Farming challenges for developing countries include poor soil, disease, drought and lack of markets. Education, fair trade and technology are ways in which these challenges can be reduced. Coffee is grown in Peru because the warm climate, frequent rainfall and rich soil provide perfect growing conditions. Growing and processing coffee is a difficult, time-consuming task because the process has changed little over time and most of the work is still done by hand.

5. What are food miles?

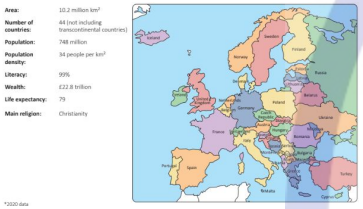
Transport networks can be tangible, such as rails, roads or canals, or intangible, such as air and sea corridors. These networks link places together and allow for the movement of people and goods. Transport networks are usually built where there is a high demand for the movement of people or goods. They run between places where journeys start or finish, such as airports, bus stations, ferry terminals or railway stations. The journey that food travels from producer to consumer is measured in food miles.

alpine	biome	climate	Coniferous forest	Deciduous forest	desert
grasslands	temperature	Transport network	Tropical rainforest	tundra	Weather patterns

Year 6 Geography - Autumn Term 1: Our Changing World

1. How do geographers draw conclusions about different places?

Demographic and economic statistics can help geographers to draw conclusions.



2. What is a settlement hierarchy?

Settlement hierarchy is a way of grouping and ranking settlements according to their type, significance, number and size.

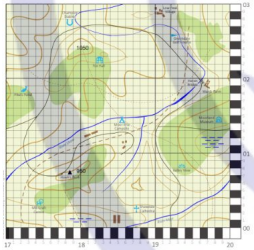
3. How do settlement patterns differ?

Settlements can be rural or urban. Their patterns include linear, circular, Y-shaped, T-shaped and cross-shaped. They can also be compact or dispersed.

How has our local settlement changed over time?

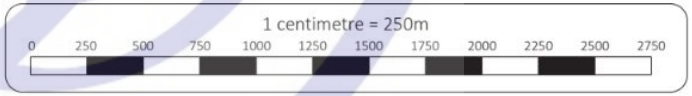
4. Why are 6-figure grid references important?

6-figure grid references enable more accurate identification of the position of key physical and human features on maps.



5. What does the scale on a map tell us?

A scale on a map is written as a ratio, for example, 1cm:800km. Small scale maps show larger areas with less detail. Large scale maps show smaller areas with more detail. The scale on a map is used for measuring the size or distance between features.

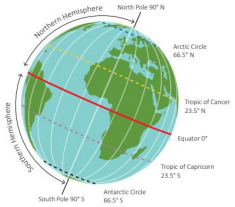


compact	**cross-shaped**	**demographic**	**dispersed**	**economic**	**hierarchy**
linear	**patterns**	**rural**	**settlement**	**statistics**	**urban**

Year 6 Geography - Spring Term 1: Frozen Kingdoms

1. What are the features of the Earth?

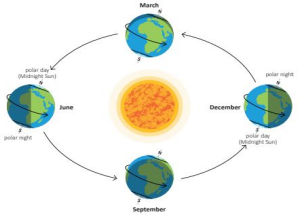
The **Northern Hemisphere** north of the equator. The **Southern Hemisphere** is south of the equator. The **Arctic Circle** and **Antarctic Circle** are 66.5° north and south of the equator.



2. What are the similarities and differences between the arctic and the antarctic?

The **Arctic region** has cold winters and cool summers. Average Arctic temperatures range from -43°C to 13°C.The **Antarctic region** has cold winters and cool summers. Antarctica is the coldest, windiest and driest place on Earth. Average **temperatures** range between -60°C and -20°C .

What are the polar regions like?



3. What is polar day and night? Why do they happen?

The **polar regions** experience the largest differences in **daylight** , as the effect of Earth's tilt is much more pronounced. It is the tilt towards the Sun that creates near-constant daylight, known as **polar day** or Midnight Sun. The tilt away from the Sun creates near constant darkness, known as polar night.

4. What are the polar oceans like?

The **polar oceans** are significantly colder than other world oceans. This **influences** the presence of sea ice, glaciers and icebergs.

5. What are the polar landscapes like?

Icebergs are large pieces of frozen freshwater that have calved from glaciers, ice shelves or larger icebergs. **Glaciers** are slow-moving **masses** of ice that are made of compacted snow. **Ice fields** are large areas of connected glaciers.

Antarctic	**Arctic**	**daylight**	**circle**	**iceburg**	**ice field**
influences	**glaciers**	**Northern Hemisphere**	**region**	**Southern Hemisphere**	**temperature**

Year 6 Geography - Summer Term I: Climate Change

1. What is climate change and how is it caused?

Climate change is the long-term change in expected patterns of weather that contributes to the melting of polar ice caps, rising sea levels and **extreme** weather. It is caused by **global warming.**

2. How does climate and extreme weather affect how people live?

Climate change can intensify natural weather events such as storms, heatwaves, floods, sandstorms and droughts to make them more extreme and more destructive.

3. What resources are traded by different countries?

Countries worldwide **trade** with each other. They **export** and **import** goods, such as fossil fuels, metal ores and food. North America, Europe and East Asia are the main industrial regions of the world due to a range of factors.

What is climate change and how can it be prevented?

4. What are natural resources?

Natural resources include food, minerals (aluminium, sandstone and oil) **energy sources** (water, coal and gas) and water. Natural resources in the Arctic include oil, gas, metals, minerals, fish, wood and freshwater.

5. How does tourism affect Antarctica?

Visitor numbers are currently low in Antarctica, cruise ships are well regulated, there are no hotels or facilities for permanent residents, and tourists are asked to follow strict guidelines to ensure the land and wildlife isn't damaged.

climate change	deforestation	energy sources	export	fossil fuels	global warming
import	natural resources	overpopulation	raw materials	tourism	trade