



Birchfield PRIMARY SCHOOL

Year 4 Curriculum Overview
Term 1.2

Teaching Team:
Mr Barnes, Miss Beck and Mrs Hickman

SLT: Mr Mazhar

PE Days: Thursday

Homework: Friday

Homework club: Tuesday and Thursday

Please see below an overview of the main themes, knowledge and skills we will be covering this half term.

Enquiry Question	Who won the battle for Britain?
Significant People	- Harold Godwinson - William, Duke of Normandy - Harald Hardrada - Alfred the Great
Class Texts	Anglo-Saxon Boy Magnus is the son of Harold Godwinson, lord of the Southern Saxons and ruthlessly ambitious claimant to the throne of England. Overnight, Magnus finds himself cast centre-stage in the blood-soaked family feud that led to one of history's most famous battles. This is the tragedy behind 1066...
Reading	This half term the children will begin their cycle of the reading domains again, focusing on a new text. The new class text for this half term is <i>Anglo-saxon Boy by Tony Bradman</i>. The children will begin the half term by developing their skills in identifying word meaning and then move onto retrieving from the text. The children will be exposed to different test question styles and techniques and be supported in developing their skimming and scanning skills. The half term will end with a focus on inference to help them read between the lines and make decisions based on clues from the text.
Writing	This term, children will explore life in Anglo-Saxon times through the text <i>Anglo-Saxon Boy</i>. They will develop narrative writing skills by creating prequels and sequels that build on the story, focusing on describing settings and characters with precision using techniques like similes, alliteration, and powerful verbs. Later in the term, pupils will shift to writing biographies, learning to organise information effectively and distinguish between facts and opinions. Grammar work will include expanded noun phrases, possessive pronouns, fronted adverbials, and suffixes such as -ly and -ation, supporting their ability to write with clarity and cohesion.
Maths	Maths this half term will begin by focusing on Measurement. We will be learning about what area is, strategies of counting squares inside a shape, how to make rectilinear shapes and how to compare areas of rectilinear shapes. The children will then begin to focus on Multiplication and Division. We will be recalling multiplication and division facts up to 12x12; using this knowledge we will be able to recognise factor pairs and commutativity in

	mental calculations. We will be using place value and known facts to multiply and divide 3 - digit numbers.
History	In this topic, children will explore life in Britain before and during the Roman era, starting with the Celts and their settlements. They will learn why the Romans invaded, examine Julius Caesar's attempts, and understand key events that shaped the Roman Empire, including the building of Hadrian's Wall. Pupils will investigate the organisation and success of the Roman army, study artefacts, and consider the significance of groups like the Aurelian Moors. Finally, they will research the Roman withdrawal and identify how Roman innovations—such as roads, towns, and calendars—continue to influence modern life.
Science	In this topic, children will learn about the states of matter—solids, liquids, and gases—by exploring their particle structures and how materials change state when heated or cooled. They will investigate melting points through practical experiments, record and present data using comparative bar charts, and understand key processes such as evaporation and condensation within the water cycle. Pupils will also develop scientific skills like making observations, measuring temperature accurately, planning fair tests, and interpreting patterns in data, while applying precise scientific vocabulary throughout their learning.
DT	This half term the children will be focusing on mechanical systems (pneumatics). The children will understand and use mechanical systems in their products. The children will use this knowledge to make a Chinese dragon using pneumatics.
Music	We will have Create Music visiting to deliver ukulele lessons as part of our music curriculum. This will give children the opportunity to learn basic chords, strumming techniques, and play simple songs, helping them develop rhythm, coordination, and confidence in performing music together.
Computing	During children's computing lessons, the children will focus on the topic 'Audio Production'. In this topic we will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally.
PSHE	Relationships – how do we treat each other with respect? Children will be looking at relationships, developing an understanding of respect. They will focus on skills such as courtesy, positive behaviour and mutual respect.
RE	Unit 3 - Being Reflective and Self-Critical Children will explore how to be reflective of themselves and their behaviour whilst being self-critical.

	Unit 4 - Being Curious and Valuing Knowledge Children will explore the importance of being curious and valuing knowledge that they are presented with from others and themselves.
PE	The pupils will take part in game sense invasion; this unit of work will develop pupils' ability to apply the principles of attack vs defence, with a focus on effectively using their passing, moving and dribbling skills to create an attack that results in a shooting opportunity. Pupils will be introduced to defensive principles including marking. The children will then move onto gymnastics, learning basic rolls, balances to build on their strength, flexibility, agility and coordination.

Knowledge organisers:

Year 4: Multiplication and Division

Key Vocabulary

skip counting
number patterns
multiples
recall
multiplication
division
timestables
doubles
halves
commutative law

Counting

I can investigate number patterns of 3, 4, 6, 7, 8 and 9. ☐

3	6	9	12	15
4	8	12	16	20
6	12	18	24	30
7	14	21	28	35
8	16	24	32	40
9	18	27	36	45

I can recall multiplication facts up to 10 x 10. ☐

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

I can solve multiplication and division problems using doubling strategies. ☐

Double = $\times 2$



Double +1 = $\times 3$



Double and double = $\times 4$



Double, double and double = $\times 8$

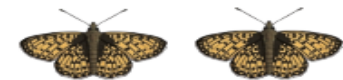


I can solve multiplication and division problems using halving strategies. ☐

Half = $\div 2$



Half and half = $\div 4$



Half, half and half = $\div 8$



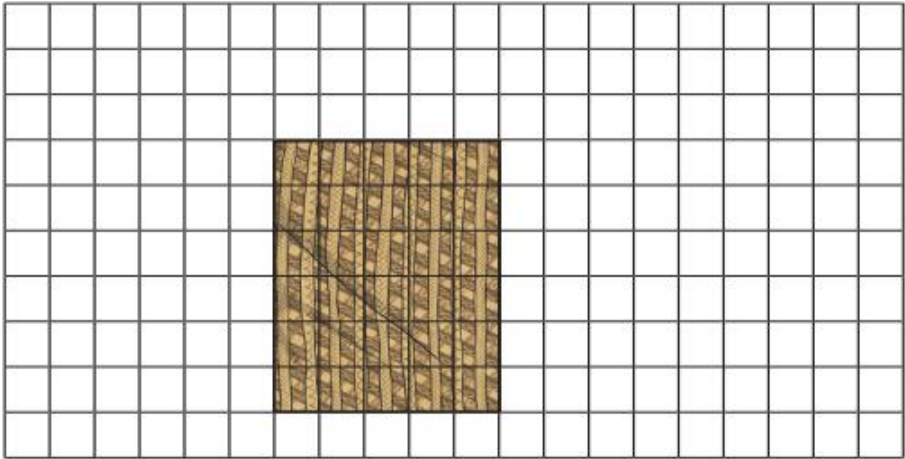
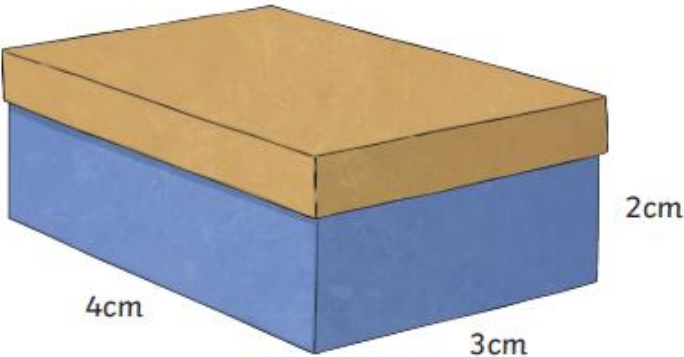
I can solve multiplication and division problems using commutative law strategy. ☐



$$4 \times 2 = 8 = 2 \times 4$$



Year 4: Units of Measurement

Key Vocabulary	Units of Measurement
60 seconds	I can compare objects using familiar metric units of area and volume.  $5\text{cm} \times 6\text{cm} = 30\text{cm}^2$  $4\text{cm} \times 2\text{cm} \times 3\text{cm} = 24\text{cm}^3$
60 minutes	
Half past	
Quarter to	
Quarter past	
Twenty to	
Twenty past	
Ten past	
Ten to	
Twenty-five past	
Twenty-five to	
Five past	
Five to	
Midday	
Midnight	
Noon	
Analogue	
Digital	

Food and the Digestive System

Producers and consumers

A producer is a living thing that makes its own food through the process of photosynthesis. Almost all producers are plants. A consumer is a living thing that feeds on other living things. All consumers fit into one of three groups depending on what they eat: herbivores eat plant parts, carnivores eat meat from other animals and omnivores eat both meat and plant parts. Animals that are hunted and eaten by other animals are called prey. Animals that hunt other animals for food are called predators.

Ecosystems

An ecosystem is a community of living organisms and their environments that interact with each other, such as a rainforest, desert rainforest or ocean. Ecosystems have biotic, or living, features including plants, animals and microorganisms. They also have abiotic, or non-living, features, such as sunlight, water, air, soil and temperature. desert



Interdependence

All living things depend on the biotic and abiotic features of their ecosystems to survive. This is called interdependence.

For example, the hummingbird depends on abiotic features, such as water to drink and oxygen to breathe. It also depends on biotic features, including the hibiscus flower for nutrition and trees for shelter.



Balance and change

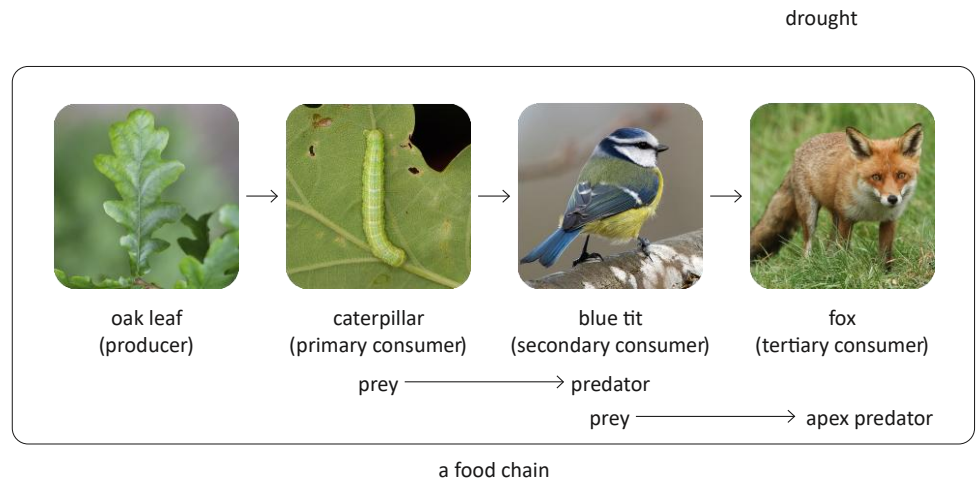
All the biotic and abiotic features of an ecosystem are finely balanced. Any change to one part will affect all the other parts. For example, a drought, or water shortage, can affect a plant's ability to grow. Animals that depend on that plant for food begin to starve and die unless they can adapt or move to a new ecosystem to survive. Human activity, such as deforestation and pollution, and natural events such as disease, floods, wildfires and drought, can damage ecosystems.



Food chains

Plants and animals need energy from food to survive. A food chain is a diagram that shows how food energy is transferred from one living thing to another.

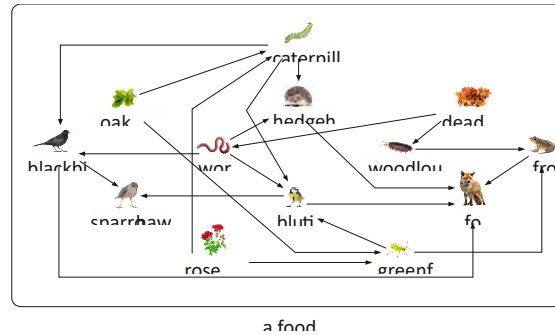
Food chains start with a producer that makes its own food. Primary consumers are herbivores that eat the producers. Secondary consumers can be carnivores or omnivores that feed on primary consumers and producers. Tertiary consumers at the end of the food chain mainly feed on the secondary and primary consumers. They are called apex predators.



Food webs

All the different food chains in a specific ecosystem can be linked together to make a food web.

Food webs show how different plants and animals in an ecosystem are connected through their interdependence.



Digestion

Digestion is the process where food is broken down into small particles that can be absorbed by the body.

The digestive organs all work together to digest food.

Mouth

Digestion starts inside the mouth. The tongue rolls the food around and the teeth break it into smaller pieces by biting and chewing. Digestive enzymes in saliva break down the food further so the food can be swallowed.

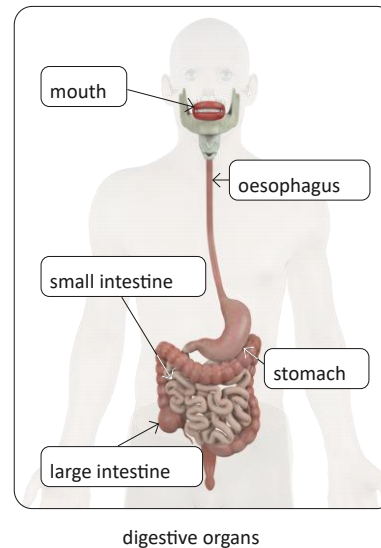
Oesophagus

The food travels through the pharynx, or throat, then into the oesophagus. Muscles squeeze the food along the oesophagus and into the stomach.

Stomach

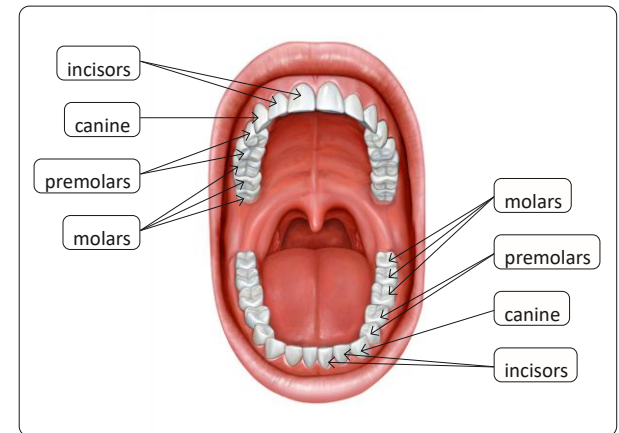
Inside the stomach, the food is mixed with digestive enzymes and digestive acid to chemically break it down into tiny particles.

Muscles also squeeze and churn the food. **Small intestine**



Teeth

Human teeth begin to grow when a baby is around six months old and continue growing until a child has 20 teeth. These are called primary teeth. These begin to fall out at around six years old and 32 permanent teeth then grow. There are four types of teeth:



Carnivore, herbivore and omnivore teeth

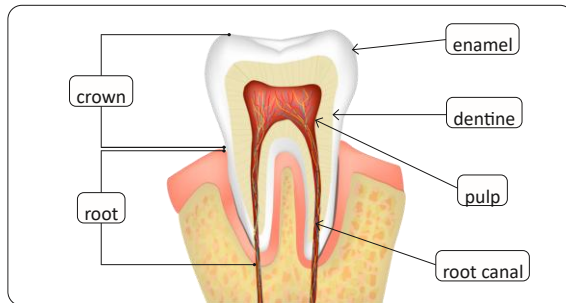
Animals have different types of teeth depending on the food they eat. Carnivores usually have large canines for ripping and tearing meat.

Herbivores usually have sharp incisors for cutting plant material and large flat

teeth: canines for tearing meat and large, flat molars for grinding plants.

Tooth structure

A tooth has a very hard, outer layer called enamel to protect against bacteria and hot and cold temperatures. Dentine under the enamel gives the tooth its structure and colour. Pulp in the middle of the tooth contains nerve endings and a blood supply which continues through a space in the root called the root canal. These nerves send pain messages from the tooth to the brain.



Oral hygiene

Oral hygiene is the practice of keeping the mouth and teeth clean to protect against the buildup of bacteria called plaque, which can lead to tooth decay and gum disease. To ensure good oral hygiene, it is important to:

- Avoid consuming too many sugary foods and drinks.
- Brush teeth twice a day with fluoride toothpaste.
- Visit the dentist at least once a year.

Glossary

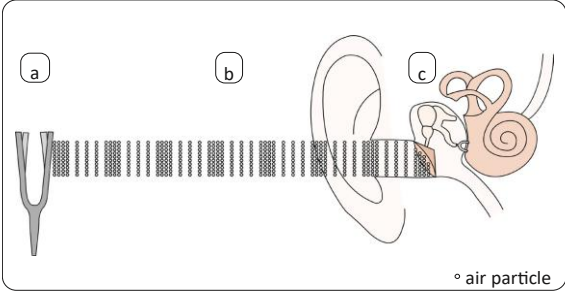
Bacteria	A type of microorganism, some of which can cause disease.
Fluoride	A chemical that can be added to toothpaste to prevent tooth decay.
Microorganism	A living thing that is too small to be seen without a microscope.

Sound

What is sound?

Sound is energy produced by vibrations from a sound source. Sound travels in waves through a medium, such as a solid, liquid or gas, to our ears. Most of the sound waves we hear travel through air, which is a gas. Where there is no medium for sound waves to travel through, such as in space, there is no sound.

How we hear sound



- a. When energy is put into a sound source, it starts to vibrate, quickly moving back and forth repeatedly in a regular pattern.
- b. These vibrations disturb the tiny particles of the medium that is close by, such as air, and they start to vibrate. They collide with the air particles next to them and pass the vibration energy along in sound waves.
- c. When the sound waves enter the ear, they make the eardrum vibrate. These vibrations pass through small bones called ossicles and are turned into electrical signals in the spiral-shaped cochlea. These signals travel through

the cochlear nerve to the brain and are interpreted as sounds.

Volume

The volume of a sound is how loud it is. It is measured in units called decibels (dB). Energy affects volume. The larger the force of energy put into the sound source, the louder the volume; the smaller the force, the quieter the volume. Distance also affects volume. The nearer the sound source, the louder the volume. The further away the sound source, the quieter the volume.

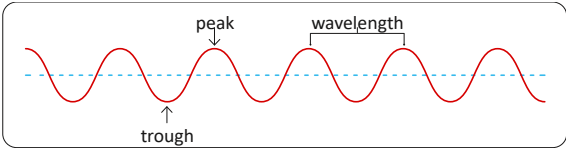
Pitch

The pitch of a sound is how high or low it is. Pitch is measured in units called hertz (Hz). Humans can hear between 20 and 20,000 Hz but dogs can hear higher-pitched sounds. Fast vibrations produce high-pitched sounds, such as the sound of a whistle. Slow vibrations produce low-pitched sounds, such as the sound of a bass drum.



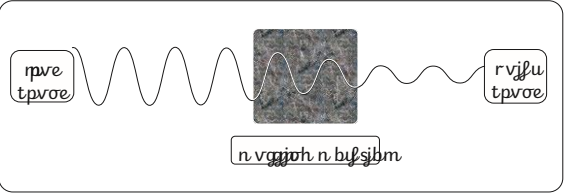
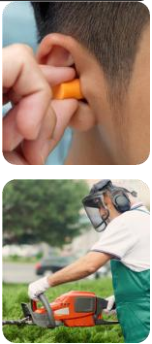
Representing sound waves

Sound waves can be represented by a wavy line in a sound wave diagram. Volume is represented by the size of the peaks and troughs; large peaks and troughs represent a loud volume and small peaks and troughs represent a quiet volume. Pitch is represented by the distance between each peak, called the wavelength. A long wavelength represents a low-pitched sound, and a short wavelength represents a high-pitched sound.



N vggjoh tpvøe

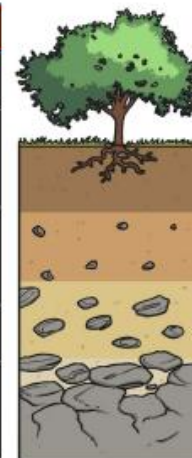
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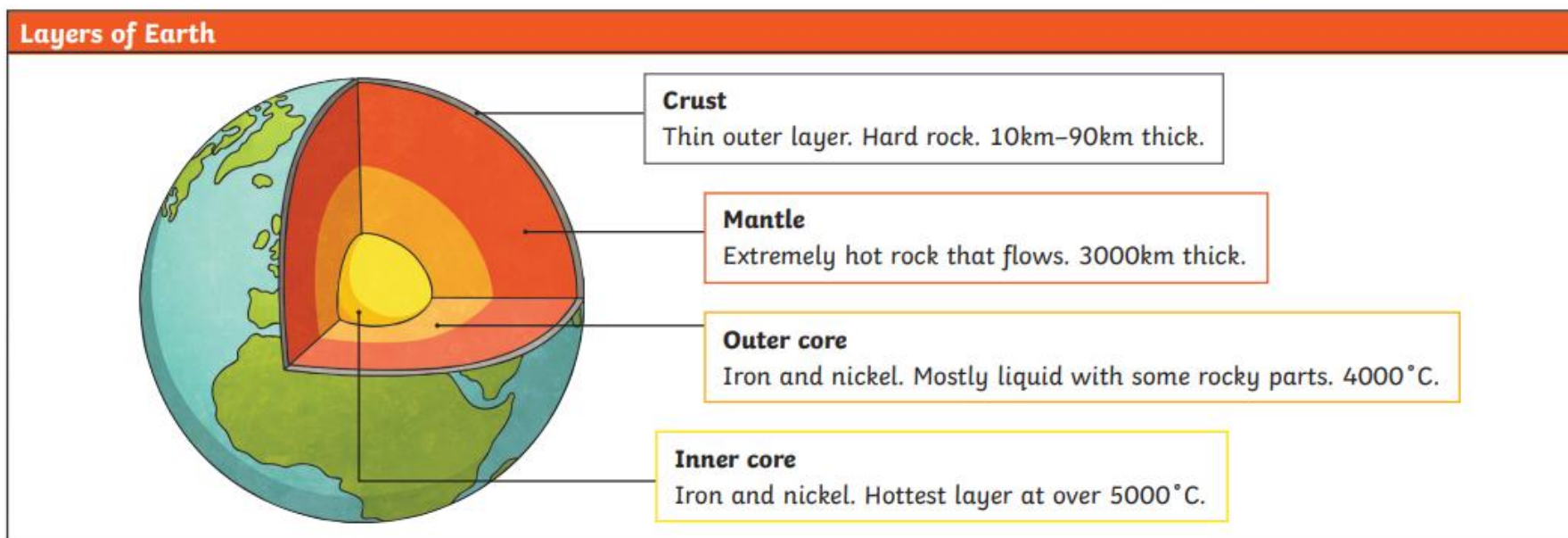
Hpttbsz

cochlea	The spiral-shaped part inside the inner ear that turns vibrations into electrical signals.
eardrum	A thin layer of tissue inside the ear through which vibrations pass.
medium	A material, such as a solid, liquid or gas, that transfers energy from one place to another.

Key Vocabulary	
cumulonimbus cloud	Large thunderstorm clouds.
erupt	To suddenly burst out causing lava to explode out of the earth's surface.
fossils	The remains of plants or animals that lived a long time ago which can be found deep in the earth.
magma	Extremely hot, liquid rock.
tectonic plates	The earth's crust is made up of large areas called tectonic plates that join together.



Layers of Soil	
humus	Rotting dead leaves and animals.
topsoil	Plant's roots grow here. Very few rocks.
subsoil	Rocks and stones. Full of nutrients. Tree roots may reach. Fossils .
bedrock	A mass of rocks. Fossils .



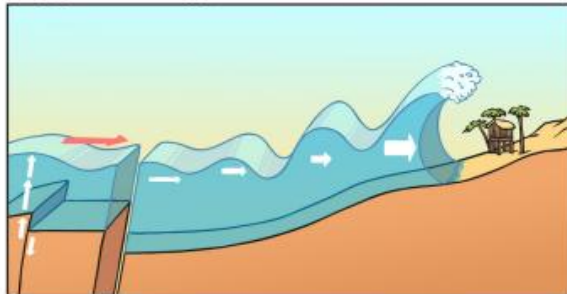
Volcanoes

- Volcanoes are made when pressure builds up inside the earth. This affects the earth's crust causing **magma** to sometimes **erupt** through it.
- Active volcanoes have **erupted** in the last 10 000 years.
- Dormant volcanoes haven't **erupted** in the last 10 000 years but may erupt again.
- Extinct volcanoes aren't expected to **erupt** again.



Tsunamis

- A tsunami is a giant wave caused by a huge earthquake under the ocean.
- The earthquake causes a large amount of water to be displaced very quickly causing a series of waves.
- As the waves travel through shallower water near land, they get bigger and bigger. The wave crashes onto the land causing devastation to buildings and sometimes even lives.



Tornadoes

- A tornado is a swirling funnel of air that forms when warm air rises from near the ground into big **cumulonimbus clouds**.
- There can be thunder and lightning at the same time.
- You can see tornadoes due to the dust and water droplets caught in the clouds.
- Storm chasers are film-makers and scientists who head towards the storms. They film the tornadoes and collect data about them.
- Most tornadoes happen in Tornado Alley in America – more than 500 each year.
- Tornadoes can happen in the UK but only around 30 per year.



Earthquakes

- Earthquakes are caused when the earth's **tectonic plates** suddenly move.
- Most earthquakes occur near the **tectonic plate** boundaries.
- Earthquakes can cause lots of damage to roads, buildings and property.

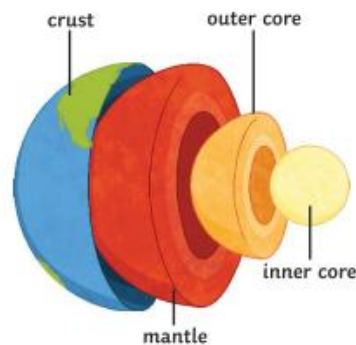


The Challenge of Natural Hazards Tectonic Hazards Knowledge Organiser

- Natural hazards pose major risks to people and property.
- Natural hazards are natural processes which cause damage, injury and death.
- Geological hazards are caused by tectonic processes.
- Different factors affect hazard risk including the severity of the natural hazard, the ability of a place to cope with the hazard and the likelihood that a hazard will occur.

Earthquakes and Volcanic Eruptions

- The crust is divided into tectonic plates.
- They move because of convection currents in the mantle.
- The plates meet at plate boundaries.



There are different types of plate boundaries:

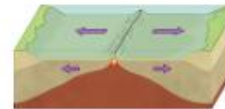
Destructive Margins

Where two plates move towards each other; the oceanic plate will be destroyed as it is forced beneath the continental plate, creating volcanoes and ocean trenches.



Constructive Margins

Where two plates move away from each other. Magma will create new crust.



Conservative Margins

Where two plates slide along each other. No crust is created or destroyed. This can cause earthquakes.



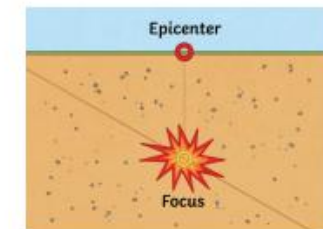
Global Distribution

Most tectonic activity is along plate margins and on the edge of continents. Some volcanoes form over hotspots in the mantle eg. Hawaii.



What Is an Earthquake?

When the plates jerk past each other they send out shock waves from the focus. The epicentre is directly above the focus on the earth's surface.



Management can Reduce the Effects of Hazards

Scientists can monitor tectonic activity, e.g. seismometers can monitor earth movements and equipment can measure escaping gas.

Volcanic activity can be predicted and people can evacuate. Predicting earthquakes is less accurate but people can prepare for them if they live in an area at risk. Buildings can be designed to use reinforced concrete and strengthened foundations. Gas and electricity supplies can have automatic shut-offs to prevent fires.

Areas at risk can plan to reduce the risk by training and educating people.

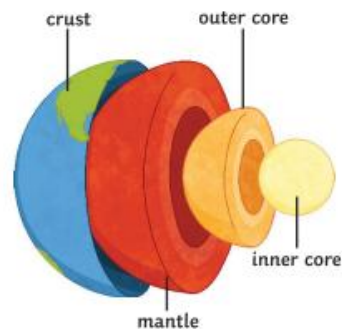
- The strength of an earthquake is called its magnitude. Magnitude is measured on a logarithmic scale (e.g. a magnitude 4 earthquake is 10 times stronger than a magnitude 3 earthquake).
- Earthquakes of magnitude 7 and above can cause serious damage and death.

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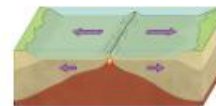
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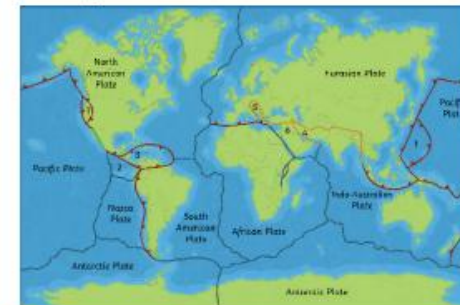
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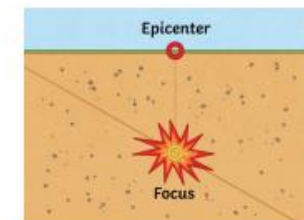
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Home Learning and Useful Links:

Homework Books

At the end of each week, your child will return home with their homework books in both English and Maths. They will be given two pages to complete based on the learning they have completed that week or the learning they will be doing the following week.

Please encourage your child to complete these to the best of their ability and return to school by Wednesday for them to be marked and any issues to be addressed.

Spellings

These are words your child will be using daily and will need to be familiar with. We will also be sending home words with your children that are key in Year 3 and 4.

Please encourage your child to practise their spellings at the weekend and across the course of the week, as they will be tested on these at the end of each week.

Times tables

Each week, your child will receive a sheet of times tables to help prepare them for the Y4 Multiplication Check.

Please encourage your child to practise these times tables ready for a small test at the end of the following week. Your child should now be using Times Table Rock Stars and taking part in competitions between each other and the other Year 4 classes. Please see your child's class teacher for log in details.

Your child should be to completing at least 5 minutes of times table practice daily.

Please use the website below

Times Table Multiplication Check Website:

<https://www.timestables.co.uk/multiplication-tables-check/>

<https://trockstars.com/>

Reading:

At the end of each week, your child will also come home with a reading book.

Please encourage your child to read this book regularly and listen to them read when you can.

Within their reading diary, we ask that you please make a comment on how your child has read, whether they are enjoying their book or even any questions you may have asked them and discussed about their story.

Both the reading book and reading diary need to be returned to school by Wednesday.

Reading:

[Oxford Owl for School and Home](#)

[Reading and comprehension - English - Learning with BBC Bitesize - BBC Bitesize](#)

[Books for Year 4 children aged 8-9 | School Reading List](#)

Phonics:

[Letters and Sounds, English Games for 5-7 Years - Topmarks](#)

[PhonicsPlay](#)

[Phase 2 Games – Letters and Sounds \(letters-and-sounds.com\)](#)

Writing:

[Year 4 English - BBC Bitesize](#)

[Writing in Year 4 \(age 8–9\) - Oxford Owl for Home](#)

[Spelling and Grammar, English Games for 7-11 Years - Topmarks](#)

Maths:

[Year 4 Maths Curriculum Toolkit | 8 & 9 Year Olds | Home Learning \(thirdspacelearning.com\)](#)

[Key Stage 2 Maths - Topmarks Search](#)

<https://www.timestables.co.uk/multiplication-tables-check/>

Science:

[Science KS2 / KS3: Classification of organisms - BBC Teach](#)

[Home | WowScience - Science games and activities for kids](#)

Sound- <https://www.bbc.co.uk/bitesize/topics/zgffr82>

Geography:

[What are volcanoes and earthquakes? | KS2 Topic | Ages 7-11 - BBC Bitesize](#)

Computing:

[Is my child safe online? Parent's questions answered | Barnardo's \(barnardos.org.uk\)](#)

[Parents and Carers - UK Safer Internet Centre](#)

[Parental Controls & Privacy Settings Guides | Internet Matters](#)

PSHE:

[Talk PANTS & Join Pantosaurus - The Underwear Rule | NSPCC](#)

[How to make an emergency 999 call – West Midlands Ambulance Service University NHS Foundation Trust \(wmas.nhs.uk\)](#)

PE:

[Nutrition Based Physical Activity Games - Action for Healthy Kids](#)
[Kids Active Learning & PE at Home – Think Active](#)