Birchfield PRIMARY SCHOOL

Year 6 Curriculum Overview

Term 1.2

Teaching Team:

Miss Fisher, Miss Shakespeare and Mr Barnes

Teaching assistant: Miss West

SLT: Mr J Aldred

PE Days: Tuesday

Homework: Every Friday

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

Class Texts	*A Christmas Carol* by Charles Dickens
Reading	**Reading domain:** 2a – give/explain the meaning of words in context. 2b – retrieve and record information/identify key details from fiction and non-fiction. 2d – make inferences from the text/explain and justify inferences with evidence from the text. 2e – predict what might happen from details stated and implied. **Test techniques:** This half term, pupils will cover the following test techniques: - True or false - Matching - Find and copy - Multiple choice - Short constructed responses
Writing	This half term, the children will begin by completing their non-chronological reports. Whilst writing these, the children shall learn to include the following features: - Technical Vocabulary - Formal Language - Facts & Statistics

	- Parenthesis - Co-ordinating & Subordinating Conjunctions. The next unit they will cover will be writing narratives. During this, children will learn how to include the following features in their writing: - Figurative language - Similes - Personification - Metaphors - Pathetic fallacy - Coordinating and subordinating conjunctions - 5 senses - Descriptive language - Shades of meaning - Colons - Semi-colons - 'Show not tell' Following this unit, the children will then begin writing persuasive speeches. They will learn how to include the following persuasive devices: - Rhetorical Questions - Repetition - Rule of Three - Passive Verbs - Modal Verbs - Emotive Language

Maths	This half term, the children will move on to learning about fractions – simplifying, comparing, and ordering, adding and subtracting with the same denominators and different denominators. Once secure with adding and subtracting mixed numbers and proper fractions they will move on to multiplying fractions by whole numbers, pairs of fractions and division of fractions by whole numbers. They shall then consider the relationships between fractions, decimals and percentages and how to convert from one to the other. Finally, they will look at recognising, reading and writing all metric measures for length, mass and capacity and the relationship between metric and imperial units.
History	In this unit, Year 6 explore the enquiry question: *How has crime and punishment evolved through time?* Pupils investigate how laws, crimes, and methods of punishment have changed from the Roman period to the present day. They learn about key historical periods — including the Anglo-Saxons, Tudors, Victorians, and modern Britain — to understand how ideas of justice have developed. Through case studies and source analysis, children compare past and present attitudes towards crime and fairness, considering what these changes reveal about society and its values.

Science	In Science, the children will resume their learning of the circulatory system. During these lessons, the children shall explore the types of blood vessels, heart rate during exercise and proving a hypothesis. They will then continue their learning about evolution focusing on the theory of evolution by Charles Darwin and Alfred Wallace. Building on this, the children will explore inheritance: looking at natural selection and survival of the fittest, whilst investigating such theories in regard to the adaptations of both animals and plants.
Mandarin	Children will be learning about these topics, this half term: • Countries • Places • Feelings
D&T	This half term, year 6 will be designing and making a bag. This process will begin with an exploration of existing products, investigating how they are made. They will then practise the skills needed to make their product focussing on stitching techniques to join materials and for decorative purposes. Next, they will design and communicate ideas through Computer Aided Design, choose their materials and consider the dimensions of their design. They will begin the making process, creating a product that is strong and fit for purpose, refining their work and techniques as they progress. When their

	product is finished they will test and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
Music	In music, pupils will begin to understand and explore how music is created, produced, and communicated, including through the inter-related dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations. The unit of work is designed to enhance vocal abilities while fostering confidence in musical expression. To deepen learning and add authenticity, children will perform for a wider audience, reinforcing real-world application of their skills during the Christmas concert and exhibition.
Computing	This half term, the children will be introduced to creating websites for a chosen purpose. They will identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process, the children will pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths.
PSHE	Pupils will be exploring how we can keep healthy as we grow. Following on from our learning in the first half term, mental wellbeing, the children will consider what

	constitutes a healthy lifestyle with a focus on five key areas (sleep, screen time, sun, physical activity and healthy food). They will look at the negative impacts an unhealthy lifestyle can have on the body and learn about strategies to help change or break an unhealthy habit or take up a new healthy one. They will then look at the role of hormones in our bodies and how these can affect us as we grow and our bodies change.
RE	Year 6 pupils will be taught about inclusion, identity and belonging. They will discuss how other religions share the same beliefs and values. It will also provide opportunities for children to identify their differences from others.
PE	The focus of the learning is for pupils to begin to understand what makes an effective leader. Pupils will be able to identify the different attributes that make an effective leader. Pupils will start to lead an activity for small groups of their peers. Pupils will understand that the equipment used will influence the task as a whole. Pupils will take responsibility to lead a game / activity applying their prior learning of the STEP principle.

Knowledge Organisers:

Reading

BOOK KNOWLEDGE ORGANISER – THE EXPLORER BY KATHERINE RUNDELL

Important Information

Plot

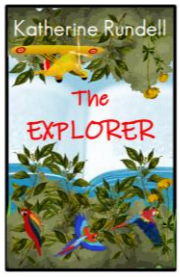
When a plane crashes in the Amazon Rainforest, the group of survivors try to work their way out of the treacherous conditions and back to Manaus. Battling encounters with deadly creatures, plants, insects, rain and constant hunger, they stumble across a map which leads them to a secret they must hold onto forever.

Themes

Environment, Conservation, Friendship, Family, Loyalty, Survival, Trust and Honesty.

Setting

The entire story is set in the Amazon rainforest, the biggest rainforest in the entire world, spanning the northwest of Brazil, Colombia and Peru. It is 5.5million km² and contains the longest river in the world, the Amazon River. The story contains vivid descriptions of the dense forest and the creatures and plants within it. The story itself seems to be set in the 20th century but it has a timeless feel and, therefore, is empty from the interference of technology.







Name of Book: The Explorer
Date Published: 2017
Author: Katherine Rundell
Reading 'Reconsidered'
Spine: Year 5/6 appropriate
Genre: Adventure



Characters

pilot	man who piloted the six-seater plane and crashed it
Fred	young, aspiring explorer with scientist parents
Con	young girl who was orphaned as a young child, raised by her great-aunt and sent to live with nuns each summer
Lila	Brazilian older sister of Max
Max	naïve but loveable Brazilian five-year-old boy who is the brother of Lila
Explorer	mysterious person living in the Amazon
Baca	an orphaned sloth who is rescued and cared for by Lila

What Can the Book Teach Us?

Somethings are better left undiscovered.
Finding ourselves is the greatest exploration of them all.

Quotes

"Heroes don't exist, boy – they're inventions made up of newsprint and quotable lines and photogenic moustaches."

"People think it means brave – and it does – but it also means a heart with claws. That's you. Con the Lion Heart."

Context – Katherine Rundell uses the real explorer Percy Fawcett as inspiration. He spent much of his life searching for the 'City of Z', a city he believed was rich with gold and highly sophisticated. After travelling across the Upper Xingu, a tributary of the Amazon River, he disappeared in 1925, never to be seen again. Many explorers searched for him but to no avail. There are as many as 65 uncontacted, indigenous tribes still left in the Amazon. In the 1500s when Christopher Columbus and the Europeans arrived, there were as many as 2000. Western diseases and the removal of habitats and forest (deforestation) have caused the deaths of most of these indigenous tribes and sadly, few remain. The Mayans were a group of people who formed a large civilisation in Mexico and Central America around 1000 B.C. and built huge temples and cities in the rainforest. Their cities began to decline by 800A.D., possibly due to clearing of the rainforest which led to desertification (when fertile land turns to desert). War or shifting trade routes may also have contributed and, when Europeans arrived in the 1500s, disease spread and killed many more. The idea that people are now clearing the forests at an alarming rate plays an important role in the book too and Katherine Rundell points out that 600,000km² of the Amazon has been destroyed so far.

Key Vocabulary

throttle	device controlling the flow of fuel or power to an engine
grimacing	to frown or sneer in disagreement or pain
luminous	giving off light; bright or shining
devoured	eat (food/prey) hungrily or quickly / destroy completely
brusquely	abrupt or curt in manner, seeming rude and rather blunt
indignantly	a manner indicating annoyance at something unfair
psychoanalyse	to analyse someone's thoughts and motives
concussion	a violent shock as from a heavy blow / to knock out
iridescent	luminous colours that seem to change at different angles
impenetrable	impossible to pass through or enter
canopy	uppermost branches of the trees in a forest
tributary	a river or stream flowing into a larger river
altitude	the height of an object in relation to sea/ground level
adrenalin	a hormone released in the body increasing heart rate
topography	the arrangement of physical features of a certain area
indistinguishable	not able to be identified as different or distinct
eavesdropper	listening in on someone else's conversation
ignition	mechanism for starting an engine
scandalising	shock/horrify someone by doing/saying something immoral
gangplank	moveable plank to enter or leave a boat/ship
hesitated	pause in indecision before saying or doing something

Writing

Spellings...I need to know some of these:

accommodate	correspond	hindrance	recognise
accompany	criticise	individual	recommend
according	curiosity	interfere	relevant
achieve	definite	interrupt	restaurant
aggressive	desperate	language	rhyme
amateur	determined	leisure	rhythm
ancient	develop	lightning	sacrifice
apparent	dictionary	marvellous	secretary
appreciate	embarrass	mischievous	shoulder
attached	environment	muscle	sincere
available	equip(-ped)	necessary	sincerely
average	equipment	neighbour	soldier
awkward	especially	nuisance	stomach
bargain	exaggerate	occupy	sufficient
bruise	excellent	occur	suggest
category	existence	opportunity	symbol
committee	explanation	parliament	system
communicate	familiar	physical	temperature
community	foreign	prejudice	thorough
competition	forty	privilege	twelfth
conscience	frequently	profession	variety
conscious	government	programme	vegetable
controversy	guarantee	pronunciation	vehicle
convenience	harass	queue	yacht

Punctuation Reminders:

A	Capital letters for sentences, initials and proper nouns.
.	Full stops
!	Exclamation marks for exclamations or surprise.
?	Question marks
'	Apostrophes for possession and missing letters.
,	Commas in lists, and to mark parenthesis, fronted adverbials and clauses.
...	Ellipsis to show a long pause for tension.
" "	Inverted commas for speech (Don't forget the commas too!).
-	Hyphen to connect words together.
-	Dashes to show longer pauses or parenthesis.
( )	Brackets for parenthesis.

Splendid Subordination!

Use these conjunctions in varied places in your multi-clause sentences:

if because as
before after until
unless since when

Can you use a subordinate clause in different places in your sentences?

Writing Mat Working towards Year 6

Active and Passive

Use active and passive sentences appropriately:

Active: In front of millions of screaming fans, the star striker missed a vital penalty.

Passive: In front of millions of screaming fans, a vital penalty was missed by the star striker.

Use a mixture of simple, compound and multi-clause sentences.

Use a thesaurus to up-level your vocabulary choices.

Important Links!

Link your sentences and paragraphs using adverbials:

Time

Subsequently, Later that day, Finally,

Place

Deep inside the forest, Below the sea,

Frequency

Occasionally, Often,

Contrast/ Cause

On the other hand, In contrast, As a result, Consequently,

Manner/ Behaviour

Breathing heavily, Waiting anxiously, Without warning, Suspecting the worst,

It's All Relative!

Use a relative pronoun to add a relative clause.

who, which, where, when, whose, that

The Queen, who has reigned for 60 years, has four children.

Hedgehogs eat garden snails, which is important within the food chain.

The stench was so putrid that it made her eyes water.

They had ventured deep into the forest where they began to feel uneasy.

twinkl
visit twinkl.com

Writing Mat

Expected Year 6

visit twinkl.com

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Creating Cohesion Top Tip: Not only can you use pronouns like he, she, it or they instead of repeating a name or names but how about other names or titles too? Here's some examples: the teacher, she, Mrs Smith, the lovely woman or the lady with the long hair.

Be a Punctuation Professional:

A	Capital letters for sentences, initials and proper nouns.
.	Full stops
!	Exclamation marks for exclamations or surprise.
?	Question marks
'	Apostrophes for possession and missing letters.
,	Commas in lists, and sentences.
...	Ellipsis to show a long pause for tension.
" "	Inverted commas for speech (Don't forget the commas too!).
-	Hyphen to connect words together.
-	Dashes to show longer pauses or parenthesis.
( )	Brackets for extra information or asides.
:	Colon to separate clauses.
;	Semi colons to separate clauses.

Perfect Parenthesis!

Use brackets, commas or dashes to punctuate extra information and

The tomb of Tutankhamen (the ancient Egyptian pharaoh) was discovered by Howard Carter.

The advancing alien, who was speaking a Martian language, looked dangerous.

The daffodils – my favourite sign of spring – swayed gently in the woodland breeze.

Use a thesaurus to look for more ambitious synonyms. Why use 'frightened' when you could use...

startled alarmed apprehensive

Or 'show' a character's feelings:

his breathing quickened her heart raced

sweat trickled gasping for air

Spellings... I need to know all of these:

accommodate	correspond	hindrance	recognise
accompany	criticise	individual	recommend
according	curiosity	interfere	relevant
achieve	definite	interrupt	restaurant
aggressive	desperate	language	rhyme
amateur	determined	leisure	rhythm
ancient	develop	lightning	sacrifice
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available	equip(-ped)	necessary	sincerely
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awkward	especially	nuisance	stomach
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bruise	excellent	occur	suggest
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community	foreign	prejudice	thorough
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conscience	frequently	profession	variety
conscious	government	programme	vegetable
controversy	guarantee	pronunciation	vehicle
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Use active and passive sentences appropriately:

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Check for:

- consistent tense and person
- subject/verb agreement
- paragraphs with cohesive links
- genre features
- layout devices

Splendid Subordination!

Use these conjunctions in varied places in your multi-clause sentences:

if	because	as
before	after	until
unless	since	when

Writing Mat

Greater Depth Year 6

... I need to know all of these:

ac	respond	hindrance	recognise
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Punctuation Reminders:

A	.	!	?	'	,	" "	( )	...	:	;	-

Use a full range of punctuation.

Check for:

- consistent tense and person
- subject/verb agreement
- paragraphs with cohesive links
- genre features
- layout devices
- pronouns/ nouns for cohesion

Active and Passive

Use active and passive sentences appropriately:

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Passive: In front of millions of screaming fans, a vital penalty was missed by the star striker.

Create a Mood!

Where appropriate, in formal writing, use the subjunctive mood:

If I were The Queen, ...

Were there to be a change in my circumstances...

Splendid Subordination!

Use these conjunctions in varied places in your multi-clause sentences:

if	because	as
before	after	until
unless	since	when

Use a thesaurus to look for more ambitious synonyms. Why use 'frightened' when you could use...

startled alarmed apprehensive

Or 'show' a character's feelings:

his breathing quickened her heart raced

sweat trickled gasping for air

Perfect Parenthesis!

Use brackets, commas or dashes to punctuate extra information and asides:

The tomb of Tutankhamen (the Ancient Egyptian pharaoh) was discovered by Howard Carter.

The advancing alien, who was speaking a Martian language, looked dangerous.

The daffodils – my favourite sign of spring – swayed gently in the woodland breeze.

Be a Punctuation Professional!

Use semi colons, colons and dashes to mark independent clauses:

It felt like forever- the longest six weeks holiday of all time.

Jack's eyes slowly opened; there was no one to be seen.

They all knew his secret: he was a specialist secret agent.

Important Links!

Link your sentences and paragraphs using adverbials:

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Science

Circulatory System

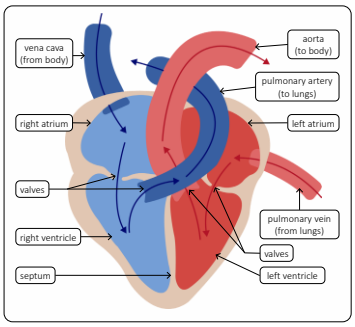
Circulatory system

The circulatory system is the system that moves blood around the body. It has three parts:

- the heart
- blood vessels
- blood



Heart



The heart is a muscular organ that acts as a pump. It pumps blood around the body through the blood vessels. Deoxygenated blood enters the right atrium through the vena cava. It passes through a valve and into the right ventricle. From there, it is pumped through a valve into the pulmonary artery. The pulmonary artery carries the blood to the lungs, where it absorbs oxygen. The pulmonary veins carry the oxygenated blood back from the lungs to the left atrium. It passes through a valve to the left ventricle and is pumped out through a valve into the aorta. Then the blood travels to the rest of the body.

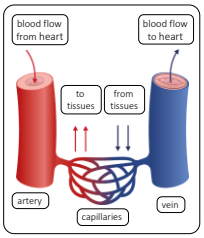
Blood vessels

There are three types of blood vessels.

Arteries carry oxygenated blood from the heart to the body.

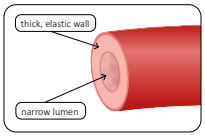
Capillaries connect arteries to the veins. They deliver oxygen and other nutrients to the body's tissues and carry deoxygenated blood and waste products to the veins.

Veins move blood back to the heart, where it is pumped to the lungs and oxygenated.



Structure of arteries

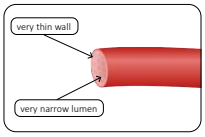
Arteries have thick walls and narrow tubes, called lumen, because the blood is under high pressure as it is pumped from the heart. The arteries are also tough and flexible to withstand this pressure.



artery cross section

Structure of capillaries

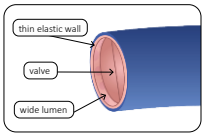
Capillaries are tiny and have very thin walls and narrow lumen so oxygen, other nutrients and waste products can move easily between the blood and the body's tissues.



capillary cross section

Structure of veins

Veins have thin, elastic walls and wide lumen. The walls do not need to be thick because the blood is not under high pressure. Veins contain valves that prevent the blood from flowing backwards.



vein cross section

Blood

The main function of blood is to transport the things the body needs, such as oxygen, other nutrients, hormones, antibodies and heat, around the body. It also transports carbon dioxide and other waste products for excretion. Blood has four components: plasma, red blood cells, white blood cells and platelets.

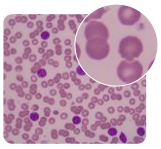
Plasma

Plasma is the yellowish liquid part of blood. It makes up about 55% of blood. It carries red blood cells, white blood cells and platelets around the body. It also helps to distribute heat.



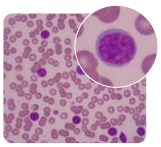
Red blood cells

Red blood cells make up about 45% of blood. Their main function is to carry oxygen from the lungs to other parts of the body and carry waste carbon dioxide from the body's tissues to the lungs so it can be excreted.



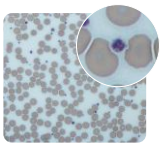
White blood cells

White blood cells only make up about 1% of blood. The main function of white blood cells is to fight infection and other diseases. They are part of the body's immune system.



Platelets

Platelets are small cell fragments that make up less than 1% of blood. Their main function is to clump together, or clot, to stop bleeding.



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Pulse and heart rate



The pulse can be felt each time the arteries expand as blood is pumped through them from the heart. It is especially noticeable where the arteries are close to the skin's surface, such as at the wrist and neck.

Heart rate is measured in beats per minute (bpm). The resting heart rate is the number of times your heart beats per minute when you are at rest. Heart rate increases during exercise.

Exercise and a healthy heart

When the body exercises, it needs more oxygen and other nutrients, so the heart beats more quickly to pump more blood around the body.

Regular exercise makes the heart stronger so it can pump more blood each time it contracts. As more blood is pumped out with each beat, there is a lower resting heart rate.



Smoking, alcohol and drugs



Smoking, alcohol and drugs have many negative effects on the human body. For example, they can cause high blood pressure, heart disease, cancer, stroke, bladder problems, fertility problems and respiratory problems. They can also affect mental health, such as causing anxiety and depression.

Sugar, salt and fat



Some foods, especially processed foods, such as crisps, ready meals and sweets, are high in sugar, salt or saturated fat. Too much of any of these types of foods can have harmful effects on the body.

Sugar



Sugar is added to many foods and drinks we consume, including sweets, cakes, biscuits, chocolate and some fizzy drinks. Eating too much sugar can cause weight gain and tooth decay. It can also cause the body to retain water and raise blood pressure, which can lead to a heart attack or stroke.

Salt



Salt occurs naturally in some foods, including meat and dairy products. It is added to others, including bread, breakfast cereals and ready meals. Too much salt can cause the body to retain water and raise blood pressure. This can lead to an increased risk of heart disease and stroke.

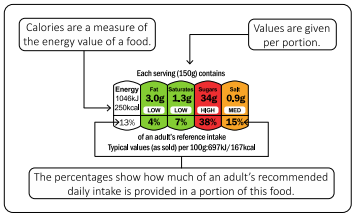
Fat



There are different types of fat in food, saturated fat and unsaturated fat. Saturated fat is found in butter, cheese, fatty meats and some processed foods. Too much saturated fat can cause weight gain and increase the risk of heart disease.

Nutrition labels

Nutrition labels on pre-packaged foods tell us what each food contains. Nutrition labels are often displayed using a traffic light system, so consumers can easily see whether the food has high (red), medium (orange) or low (green) amounts of sugar, salt and saturated fat. It also gives other useful information.



Glossary

antibody	A protein in the blood produced by white blood cells to fight infection and other types of disease.
excretion	The process of expelling waste.
hormone	One of many chemical messengers produced inside the body of an animal or plant that controls growth or other bodily processes.
immune system	The bodily system that offers protection from infections and other diseases.
oxygenated	Contains oxygen.
processed food	Food that has been changed during its preparation.
respiration	A process where oxygen is absorbed by the body and carbon dioxide is excreted.
valve	A structure in the body that prevents blood from flowing backwards.

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Evolution and Inheritance

Classification

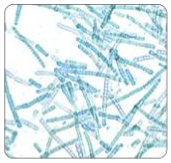
Grouping living things based on their characteristics is called classification. The first classification system developed by the Swedish scientist Carl Linnaeus (1707–1778) divided all living things into two kingdoms, animals and plants. Today, scientists classify all living things into five kingdoms. The members of each kingdom have specific features in common.

Kingdom	animal kingdom	plant kingdom	fungus kingdom	protista kingdom	monera kingdom
					
Features	• multicellular • cannot make food • can move from place to place • live on land or in water • reproduce sexually	• multicellular • make food using sunlight • cannot move from place to place • live on land or in water • reproduce sexually or asexually	• unicellular or multicellular • cannot make food • cannot move from place to place • live on land or in water • reproduce sexually or asexually	• unicellular or multicellular • some make food, others can not • most can move from place to place • live in water • reproduce sexually and asexually	• unicellular • make food • most can move from place to place • live on land or in water • reproduce asexually

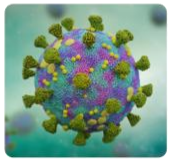
Microorganisms and viruses

A microorganism is a living thing. It is too small to be seen without a microscope. Microorganisms can be found in the fungus, protista and monera kingdoms. Most microorganisms are beneficial. For example, cyanobacteria make oxygen, and a unicellular fungus called yeast is added to bread to make it rise. Some microorganisms are pathogens, which means they cause disease in other living things.

Viruses are not microorganisms as they are not living and need a host to survive. They are not part of any of the kingdoms. Some viruses can be beneficial and others harmful. For example, the virus SARS-CoV-2 causes the illness COVID-19.



cyanobacteria



SARS-CoV-2 virus

Fossils and the fossil record

Fossils are the remains of once-living things or traces of life, such as footprints, tracks, dung or burrows, that have been preserved as rock. Preserved remains and traces of life are called fossils if they are over 10,000 years old.

The fossil record was created by scientists to group and make sense of the vast amount of fossils that have been discovered. It is ordered from the oldest fossils found deepest in the ground to the newest fossils found closest to the surface. It provides a history of the Earth.

The fossil record tells us about:

- the living things that have inhabited Earth
- the Earth's environment over time
- how species have evolved
- extinction events

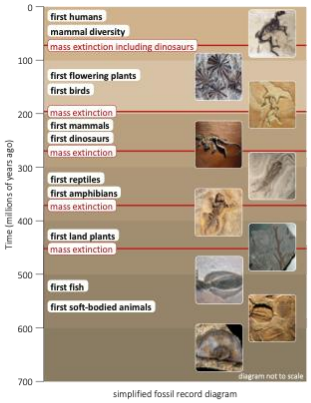
However, the fossil record is incomplete because soft-bodied animals decayed too quickly to be fossilised and fossils are still buried in the Earth's rocky layers.



fossilised turtle



fossilised footprint



simplified fossil record diagram

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The theory of evolution

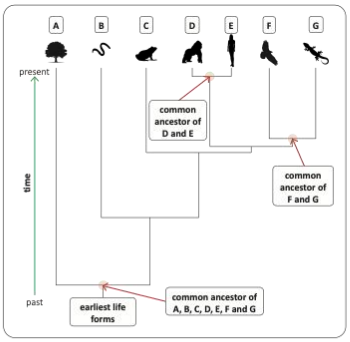
The theory of evolution was first developed by the naturalists Charles Darwin and Alfred Russel Wallace in 1858. The theory states three assumptions:

- All life on Earth has evolved from simple life forms to more complex ones over time.
- All life on Earth has common ancestors and is therefore related.
- Living things with characteristics most suited to their environment are more likely to survive and reproduce.

At first, the theory was controversial. Some saw it as an explanation for the variety of species on Earth, but others saw it as blasphemous as it challenged the Christian belief that God created the Earth and all living things. Today, the fossil record and DNA evidence support the theory of evolution.

Evolutionary tree diagrams

Charles Darwin sketched a branching tree diagram to help explain the theory of evolution. Evolutionary tree diagrams today represent what scientists think they know about the evolutionary relationships between different living things; however, they are not fact. Those living things with a more recent common ancestor, such as D and E, are said to be more closely related than those with a less recent common ancestor, such as F and G.



Simplified evolutionary tree diagram

Inheritance

Living things that sexually reproduce pass on inherited characteristics to their offspring, such as skin colour and eye colour. Offspring inherit one copy of each gene from the female parent and one from the male parent. This mixing of genes means that offspring are unique, differing from their parents and each other.

Variation

Variation is the natural differences in characteristics between individuals of the same species. There are two types of variation: continuous and discontinuous. Continuous variation has a range of values, such as the height or mass of individuals of the same species. Line graphs display continuous variation. Discontinuous variation has a specific number of outcomes, such as eye colour or blood groups. Bar charts show discontinuous variation.

Natural selection, adaptation and survival of the fittest

Natural selection is the process behind the theory of evolution. Variation within a species is caused by small, natural changes in DNA between individuals and the random mixing of parent DNA following sexual reproduction. If a variation positively affects a living thing's ability to survive, they are more likely to live long enough to reproduce and pass on the attribute to their offspring. This process naturally selects those individuals who are better able to survive in their habitat, and is known as 'survival of the fittest.' Over time, positive attributes become common among a species and are seen as adaptations. For example, ancestors of the giraffe had shorter necks, but due to variation and natural selection, individuals with longer necks became common in the species.



There are three different types of plant adaptation:

Structural: Cacti have modified leaves called spines to deter animals from eating them.

Behavioural: Mature sunflowers face the rising Sun in the east because pollinators prefer warm flowers.

Chemical: Stinging nettles have hairs containing chemicals that sting when touched to deter animals.



Artificial selection

Artificial selection, also called selective breeding, is the process where humans breed animals and plants to produce offspring with what they consider to be desirable characteristics.

Examples include breeding cows that produce large quantities of milk or crops that are disease-resistant and produce lots of grain.





Glossary

adaptation	A physical or behavioural characteristic that allows a living thing to better survive in its habitat.
ancestor	A living thing from which others have evolved.
deoxyribonucleic acid or DNA	The inherited material inside all cells that carries the instructions needed for that living thing to develop and survive.
evolve	To change gradually over a long period of time.
gene	A small section of DNA that acts as instructions for a specific inherited characteristic, such as eye colour.
multicellular	Consisting of many cells.
species	A group of similar living things that can reproduce naturally.
unicellular	Consisting of a single cell.

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Home Learning

Reading:

Oxford Owl for School and Home
Reading and comprehension - English - Learning with BBC Bitesize - BBC Bitesize
https://schoolreadinglist.co.uk/reading-lists-for-ks2-school-pupils/suggested-reading-list-for-year-6-pupils-ks2-age-10-11/

Writing:

https://www.bbc.co.uk/bitesize/subjects/zv48q6f/year/zncsscw
Spelling and Grammar, English Games for 7-11 Years - Topmarks

Maths:

https://www.bbc.co.uk/bitesize/subjects/z826n39/year/zncsscw

Science:

https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zkq7wnb

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