



Learning in Form 6 Summer 2025



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Overview of Summer Term Curriculum

Form 6

	Summer 1	Summer 2
English	Wolf Brother by Michelle Paver	Dark Sky Park Poetry by Philip Gross and Jesse Hodgson
Mathematics	Revision of Form 6 and an introduction to Year 7 Maths	
Science	The Environment	Evolution
Knowledge (History)	World War II	The History of Human Rights
Knowledge (Geography)	South America (continued)	Africa
Art	Victorian Art and Architecture	William Morris -Victorian designer.
STEAM	ISEB iPQ Qualification	ISEB iPQ Qualification

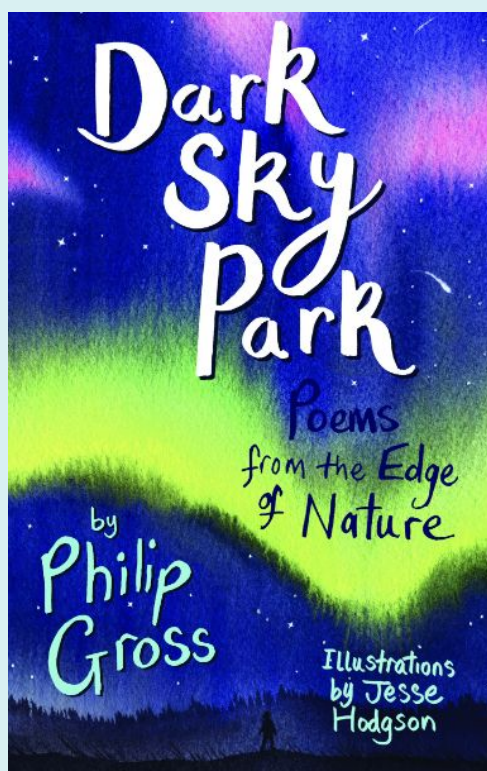
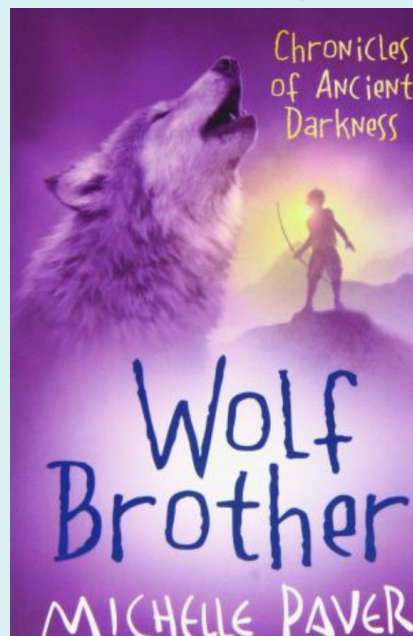


ENGLISH

To support children to read and write with accuracy, we place high quality, challenging children's literature at the heart of our approach to English.

The first in a series *Chronicles of Ancient Darkness*. Following the death of his father, Torak discovers that he must embark on a quest for which he does not feel prepared, pursued by the enormous bear that killed his father. Accompanied by a wolf cub, symbol of the clan from which he has been excluded, Torak's journey through the Forest is atmospherically and convincingly portrayed, combining ancient magic with practical details about how he survives.

Potential Writing Outcomes : Letter in role ▪ Script marking ▪ Note making ▪ Character description ▪ Storyboard ▪ Eyewitness account ▪ Poster ▪ Poetry ▪ Journal
▪ Descriptive writing



Subtitled 'Poems from the Edge of Nature', the poetry in this collection reaches deep into the past and wide across the world, burrowing into the earth and the sea to discover those creatures less observed rather than those that have more often captured the imaginations of our 'invasive species, Homo Sapiens'. Philip Gross keeps returning to the tardigrade, of which he tells us in one of the notes appearing throughout the book: 'There are more than 1,000 species... Sort, plump, eight-legged, they are also known as water bears or moss piglets.' He gives this tiny creature voice: 'I was there from the off – the sound of life revving up all over.' Other small creatures emerge, such as the worms that eat the sunken bones of whale. The first plant on dry land comes 'shuffling out of the cool, the all-providing sea.' Jesse Hodgson's black and white illustrations complement the elemental voices while leaving plenty of room for the imagination to soar.

Potential Writing Outcomes : Poetry performances ▪ Artistic responses to poems read ▪ Notes and annotations exploring language and personal responses to poems read ▪ Persuasive adverts ▪ Own poems inspired by poems read.

SPELLING

Orchard House School follows the Read, Write, Inc programme for the teaching of spelling.



Spelling sounds practised in the Summer term:

Focus	Example Words
The sh sound spelt ti or ci	fraction, direction, information, explanation competition, dictionary, initial official especially appreciate ancient musician politician precious delicious spacious
The sh sound spelt si or ssi	mission session impression permission admission possession profession expression
Silent Letters	crumb climb comb lamb thumb debt doubt subtle salmon calm half calf talk yolk folk hymn autumn column solemn
The spellings ei and ie	Ceiling conceit receive deceive piece niece shriek relief believe achieve
Words ending in -ible and -able	dependable comfortable understandable resistible accessible responsible
Plural nouns	The rule is that if a noun ends in s , ss , x , sh , ch (when pronounced ch) or tch we add -es to make it plural. bus buses address addresses box boxes beach beaches dish dishes ditch ditches Nouns ending in the letter o usually become plural just by adding s . However, if there is a consonant before the o , it is almost always -es that we add. tomato tomatoes echo echoes hero heroes domino dominoes potato potatoes

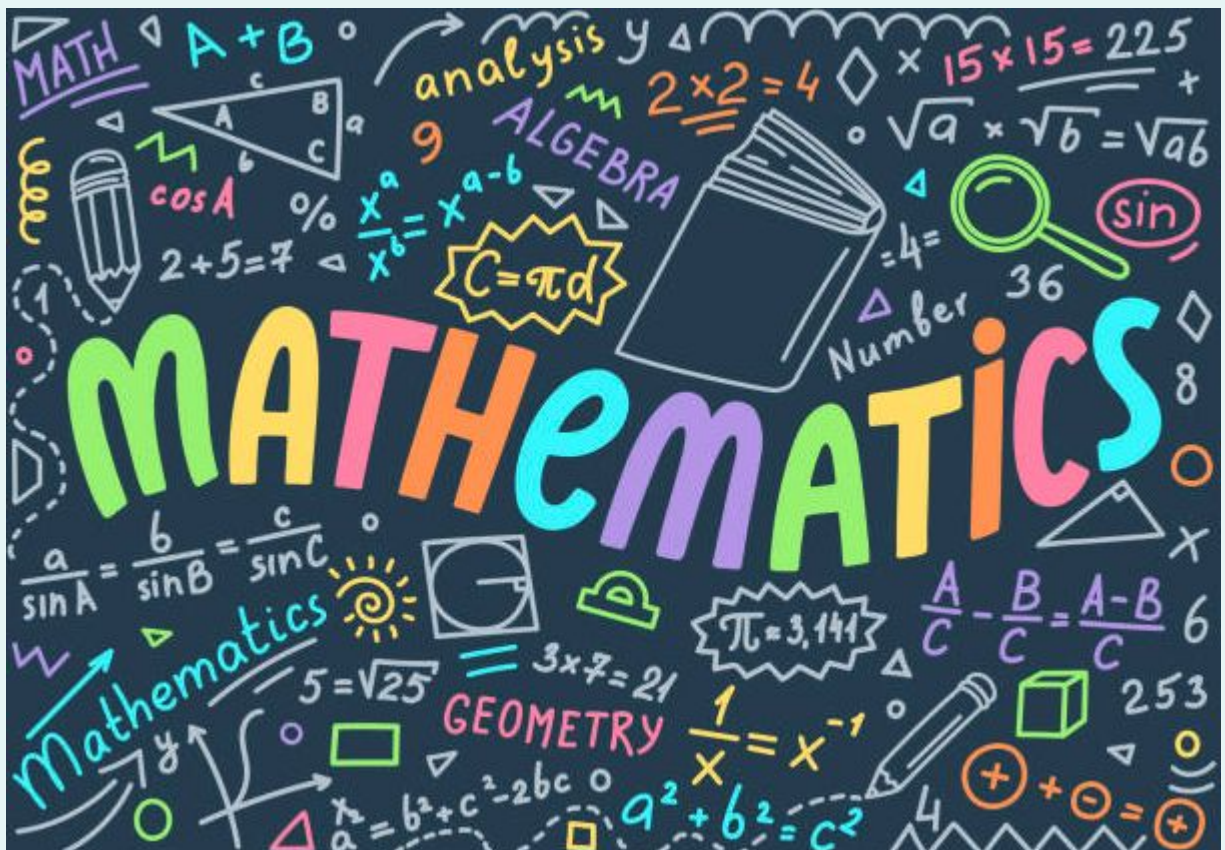


MATHEMATICS

In this final term, Form 6 will secure their understanding of concepts and topics in the Year 6 National Curriculum. Children who are secure with this will progress to an introduction of Year 7 National Curriculum objectives, as well as have the opportunity to apply their understanding to practical and problem solving applications.

Topics in the Summer Term Include:

- Algebraic Sequences
- Understand and use algebraic notation
- Equality and equivalence
- Fraction, decimal and percentage equivalence
- Fractions & percentages of amounts
- Constructing, measuring & using geometric notation
- Developing geometric reasoning
- Developing number sense
- Sets and probability
- Prime numbers and Proof





SCIENCE

The Environment

During this unit, the children will:

- Learn about climate change
- Explore ways to reduce how much rubbish is sent to landfill
- Explore ways to reduce energy consumption
- Explore what happens when fuels are burnt
- Explore the outcomes of COP26
- Compare data associated with the weather



Evolution

During this unit, the children will:

- Understand how offspring vary and are not identical to their parents
- Learn about animal adaptations
- Learn about plant adaptations
- Explore what we can learn from fossils
- Explore the theory of evolution through natural selection
- Explore human evolution





GEOGRAPHY

South America



Topic	Knowledge Goals
An introduction to South America	<ul style="list-style-type: none">• South America is located in the Western Hemisphere.• It is also almost entirely in the Southern Hemisphere, but some parts cross into the Northern Hemisphere. Scientists believe South America and Africa were once joined millions of years ago.• Some of the countries in South America include Brazil, Chile and Argentina.
Past civilisations and empires	<ul style="list-style-type: none">• The Incan Empire covered land in many South American countries, including Peru, Ecuador, Bolivia, Argentina, Chile and Columbia.• The Inca overcame the challenge of geography to build an empire covering deserts, rainforests and mountains.• The Inca were known for their governance of the empire, aided by their communication system of knotted strings, and for their engineering.
The Andes Mountains and the Atacama Desert	<ul style="list-style-type: none">• The highest point of the Andes mountain range is Mount Aconcagua.• The Atacama Desert is one of the driest places in the world.• There are volcanic zones in the Andes mountains.
Brazil (Agriculture and Industry)	<ul style="list-style-type: none">• A large proportion of land in Brazil is dedicated to farming of crops and animals.• Brazil grows cotton, coffee, fruit and sugar cane for export. Brazil is the largest energy consumer in South America.• It also produces coal, oil and hydroelectric power.
The Amazon Rainforest	<ul style="list-style-type: none">• The Amazon Rainforest has more species of plants and animals within it than any other rainforest in the world.• Deforestation and forest fires are a threat to the biodiversity of the rainforest.• Due to the large stores of carbon within the rainforest, its destruction would have global impact.





GEOGRAPHY

Africa	
Topic	Knowledge Goals
The Continent of Africa	<ul style="list-style-type: none">• Africa is a large continent with many different biomes.• Africa is rich in natural resources such as fossil fuels, metals and precious stones.• Scientists believe Africa is the oldest inhabited continent.
Past civilisations and empires – Mansa Musa	<ul style="list-style-type: none">• In Ancient Africa, gold and salt were important commodities for trading.• The Empire of Mali was a powerful merchant empire in West Africa.• Mansa Musa, an ancient, rich emperor of Mali, travelled across Africa to Mecca.
The Sahara Desert and Desertification	<ul style="list-style-type: none">• The Sahara Desert has seen the process of desertification occur for many years.• In recent years, the process of desertification has occurred more rapidly.• Desertification hits the poorest and most vulnerable members of a population hardest.
Food Security	<ul style="list-style-type: none">• When people within a country have access to nutritious food they can afford, the country is 'food secure'.• If people within a country cannot access nutritious food, the country is experiencing food insecurity.• It is challenging for some African countries to produce enough food due to climate factors, conflict and poverty.
Kenya	<ul style="list-style-type: none">• Kenya's environmental regions include savannah, mountain forests, desert and mangroves.• Kenya is known for its tourist industry, particularly for safaris.• Locust infestations can damage farmland and cause food insecurity.





History

World War II

Topic	Knowledge Goals
An Introduction to World War Two	<ul style="list-style-type: none">World War II began in 1939 (when Germany invaded Poland) and ended in 1945.The war was fought between two sides: The Allied Powers (including the UK, the Soviet Union, France, USA) and Axis Powers (including Germany, Italy, Japan).Battles were fought all over the world, including Europe, North Africa, Asia and the Pacific.
The Battle of Britain	<ul style="list-style-type: none">In 1940, Hitler planned to invade Britain, known as Operation 'Sealion'.Britain's RAF withstood the German Air Force (Luftwaffe) in the Battle of Britain.The Luftwaffe heavily bombed towns and cities in Britain (known as the Blitz) in an attempt to get Britain to surrender.
Bletchley Park	<ul style="list-style-type: none">Codebreakers at Bletchley Park were employed by the government to intercept and decode the enemy's secret messages.Alan Turing and his team created a code-breaking machine called a 'Bombe' to read secret German messages sent by their Enigma machines.Intelligence gained at Bletchley was used to win battles on land, at sea and in the air.
The Holocaust	<ul style="list-style-type: none">The Nazis established camps where people were forced to work, kept in appalling conditions and killed.Many people, including millions of Jews, were killed in gas chambers.At the end of the war, the camps were liberated, but many people died after liberation due to their ill treatment.
The Home Front	<ul style="list-style-type: none">Civilians tried to escape heavy bombing by hiding in air raid shelters and evacuating the cities.Over a million men at home volunteered to join the Home Guard to protect Britain if Germany invaded.Women played an important role taking on jobs, previously done by men, working in factories, on farms (the Land Army).The government used propaganda to influence the people to support the war. Campaigns included the 'Dig for Victory' and 'Careless Talk Costs Lives' campaigns.





History

The History of Human Rights

Topic	Knowledge Goals
What are Human Rights?	<ul style="list-style-type: none"> • In 1948 the UN established the Universal Declaration of Human Rights • In the UK, the Human Rights Act 1998 protects human rights • The European Court of Human Rights ensures countries in Europe respect human rights
Women's rights	<ul style="list-style-type: none"> • Before 1918, women in the UK were denied the right to vote. • Before the 1980s, women couldn't open their own bank accounts, were disqualified from certain professions and could legally be paid less than a man for doing the same job. • The Equality Act 2010 replaced a number of anti discriminatory laws with one Act
Children's rights	<ul style="list-style-type: none"> • The UNCRC grants all children a set of rights • The UN Convention on the Rights of the Child came into force in the UK in 1992 • The UNCRC has been agreed by countries all over the world (196 countries to date)
Racial Equality	<ul style="list-style-type: none"> • Britain has been ethnically diverse for centuries • In the 1960s, while the Civil Rights Movement was taking place in the USA, the Bristol Bus Boycott took place in Britain in response to the bus company refusing to employ anyone who wasn't white. • The Race Relation Acts in the 1960s and 70s made race discrimination illegal
Freedom of thought, belief and religion	<ul style="list-style-type: none"> • Before the 1530s, England was predominantly Catholic. Following the Reformation, many laws discriminated against Catholics • People of different faiths have lived in Britain for hundreds of years. • The Human Rights Act 1998 and the Equalities Act 2010 protect people from religious discrimination today





STEAM

Skills & Competencies:

Our STEAM curriculum consists of a series of projects that aim to develop a set of fundamental competencies, that empower pupils to effectively navigate personal, cultural, economic, and societal obstacles they will inevitably encounter throughout their lives:

1. **Curiosity:** The ability to ask questions and explore how the world works
2. **Creativity:** The ability to generate new ideas and apply them
3. **Criticism:** The ability to recognise information and ideas and to form reasoned arguments and judgements
4. **Communication:** The ability to express thoughts and feelings clearly and confidently in a range of forms
5. **Collaboration:** The ability to work constructively with others
6. **Compassion:** The ability to empathise with others and to act accordingly
7. **Composure:** The ability to connect with the inner life of feeling and develop a sense of personal harmony and balance
8. **Citizenship:** The ability to engage constructively with society and to participate in the processes that sustain it.



ISEB IPQ Qualification - Level 2

Play to pupils' strengths – the iPQ is about the process, not the outcome, so pupils can select topics, investigations, talents, or activities in which they are interested in or excel at. The iPQ is an excellent complement to traditional exams, developing additional skills that add to a child's portfolio of recognised achievements.

The iPQ framework takes pupils through five defined learning stages, in which they explore a question and present their findings. The flexibility built into the design gives schools broad scope to fit the project and assessment to their curriculum and pupils' needs.





PSHCEE / RSE

Orchard House School has been implementing the PSHCEE /RSE Programme across the school since September 2020. We would like to reassure you that all the online Jigsaw teaching materials meet the current statutory expectations for RSHE (DfE, 2019) and if and when any new guidance is published, you can be fully confident that our materials will be updated and reviewed to ensure that they are compliant and reflect the needs of our children.

We follow a scheme of work called Jigsaw, a mindful approach to PSHCEE / RSE. The lessons aim to build children’s emotional literacy, self- esteem and knowledge of who they are and how they relate to each other and the world in a positive and healthy way.

Relationships	Changing Me
<ul style="list-style-type: none"> Mental health Identifying mental health worries and sources of support Love and loss Managing feelings Power and control Assertiveness Technology safety Take responsibility with technology use 	<ul style="list-style-type: none"> Self-image Body image Puberty and feelings Conception to birth Reflections about change Physical attraction Respect and consent Boyfriends/girlfriends Sexting Transition





PHILOSOPHY & ORACY

Philosophy and oracy are integral disciplines at Orchard House School. They are woven throughout the curriculum and we encourage a thoughtful, talk-rich culture within every classroom and incorporate both disciplines into lesson planning. In addition to the opportunities to nurture these elements at school, we invite families to take part in our weekly “Sticky Questions” school initiative.

What is Sticky Questions?

The aim of sticky questions is to get parents and children talking about interesting questions. Every Wednesday, your child will come home with a Sticky Question stuck to their uniform. There’s no writing involved. Just take the time to talk with them about it and see what you each think and why.

What makes Sticky Questions “sticky” is that you can keep arguing about them. It’s not like a maths worksheet where a teacher is looking to see a particular answer. What matters is that you and your child talk and think together. If you disagree, so much the better. If you think alike, you might play at disagreeing for the sake of argument.

On Thursday, the class will carry on the talk during Form time, bringing in ideas heard from home. Part of the point of this exercise is to celebrate differences in thinking between children and within families.

Whole Class Philosophy Lessons

Debating Planet	Topic : How Humans Should Be Theme: Equality
	Topic : How Humans Should Be Theme: Scales of Justice
	Topic : How Humans Should Be Theme: Right and Wrong
	Topic : How Humans Should Be Theme: How We Run the World
	Topic : How Humans Should Be Theme: Prejudice
	Topic : How Humans Should Be Theme: I Want to Break Free
The Ethics of Time	An enquiry based on the theme of time exploring questions such as: Can you own your own time? In what ways is time like money? If you invest time in something, do you earn interest?
Horrible History	Looking at the Horrible Histories TV programme and books to discuss: Is it more acceptable to joke about the past than the present? When should jokes be taken seriously? Is it right to make jokes about sad things to increase people's' interest in them?
The Ring of Gyges	The locus classicus for this story is Book II of Plato’s republic, where it features in a dialogue whether people only act rightly in response to social pressure. This story is used to stimulate discussion on : Why are people good? Why do we do the right thing when nobody's watching? If you believe in God, is someone always watching?



Art

Art is highly valued at Orchard House School. Topics promote creativity and self-expression alongside ambitious teaching of artistic periods, mediums and movements. Learning is interconnected with the Knowledge curriculum, adding colour and texture to people, places and moments in time.

Summer 1	Summer 2
Victorian Art and Architecture	William Morris -Victorian designer.
<p data-bbox="41 591 639 628"><u>Victorian Homes. Line, Shape & Texture</u></p> <ul data-bbox="73 683 778 1072" style="list-style-type: none"> ● To learn about geometric shapes and use a ruler to create a Victorian house with a pencil. ● To learn about symmetry and draw Victorian houses that have sections that are the same on both sides. ● To learn about repetition and create interesting decorative details and patterns in my Victorian house. <p data-bbox="41 1122 724 1203"><u>Victorian Fashions. Figure drawing and mixed media.</u></p> <ul data-bbox="73 1297 759 1814" style="list-style-type: none"> ● To learn about figure drawing and draw a figure that has realistic human proportions by using my fold lines as a guide. ● To learn about Victorian fashions and draw Victorian Era clothing by observing images of fashions that were popular in 19th-century Great Britain. ● To learn about mixed media and choose from a variety of media, which type is most appropriate for each area of my artwork. 	<p data-bbox="815 591 1246 628"><u>Create a design for printing.</u></p> <ul data-bbox="842 683 1549 1731" style="list-style-type: none"> ● To draw around the polytile and put my design inside the shape. ● To use single lines and fill the space with my design. ● Add details using lines, textures, or patterns. ● Add details using lines for textures or patterns. ● To decide which details to include. ● Finish the design for printing and trace it onto tracing paper and transfer the design onto my polytile and print it. ● To use single lines and fill the space with my design. ● To add details using lines for textures or patterns. ● To trace the design. ● To push holes through the tracing paper into the polytile and follow the lines of the design. Then join up the dots on my polytile to reveal my design. ● To ensure that my lines are deep enough, by feel them. Print the polytile design.





BEYOND THE ORCHARD



SPORT



PHYSICAL EDUCATION

Rowing

- To learn the importance of safety on the river.
- To gain a basic understanding of the correct rowing technique in a quad.
- To understand how to work with others on a boat.

Athletics

- To be able to confidently lead a relevant whole class warm up.
- To develop and refine their sprinting technique.
- To revisit sprint starts and their importance in sprinting events.
- To understand the main phases and teaching points for long jump.
- To understand the key teaching points for overarm throw using a variety of equipment.
- To understand what pacing means and why it is important in middle and long distance running.
- To look at a smooth and consistent baton changeover in a relay.

GAMES

Cricket

- To be able to confidently bat using the correct technique.
- To understand different types of batting attacking and defensive batting.
- To improve and demonstrate the correct bowling technique.
- To improve fielding practise and positional play.
- To enjoy working as part of a team and participate in competitive games.

SWIMMING

- To continue to develop technique across all four strokes.
- To improve diving technique and confidence with entry into the water.
- To understand and learn the technique of turns.
- To improve confidence and stamina in the water.



BEYOND THE ORCHARD

Computing



Online Safety

- Pupils will continue to learn about keeping themselves safe online. They will also look at self-identity, privacy and

Inventing a product

- Designing a product, pupils: evaluate, adapt and debug code to make it suitable for their needs and designing products in CAD and creating a website and video.

French



- Epiphany- la galette. To listen and understand longer and more challenging texts
- The imperative form of ER verbs
- Pancake day - understanding a recipe. To use vocabulary learnt from reading and use the bilingual dictionary to find a wide range of words.
- To engage in a conversation using familiar language (hobbies and school subjects)
- Describing hair and eyes colour (adjective agreement and position of the adjective)
- Writing letters to our French penpals
- To read an authentic text and use different strategies to make meaning (René Magritte)
- To write a range of longer and more complex sentences to describe a painting (René Magritte)

Music & Performance

Drama

Throughout the summer term, Form 6 will start rehearsals for their end-of-year production of Shrek the Musical. Students will enhance their performance abilities while learning to combine dance, song and acting. The term will conclude with a grand performance at the POSK Theatre in Hammersmith, in front of an audience of 300 people.

Music

Form 6 will concentrate on their summer production, Shrek Jr which will require singing in harmonies and counterpoint at various times. Particular attention will be brought to delivering the lyrics and melodies whilst acting and dancing.



Knowledge Organisers

What is a Knowledge Organiser?

A knowledge organiser shows the key factual knowledge that we want our children to use and remember to have basic knowledge and understanding of a topic. These are a one page overview of each topic taught over a half term and can include:

- Key vocabulary and technical terms
- Images such as maps, diagrams or photographs
- A timeline
- Famous quotations
- Essential knowledge laid out in easily digestible chunks

The Benefits of Knowledge Organisers

- They help children learn and retain the knowledge of the curriculum.
- They give children the 'bigger picture' of a topic, subject area or concept.
- It provides opportunities for regular retrieval which aids long term retention
- They make the knowledge explicit.

How You Can Use Knowledge Organisers to Help Your Children with Their Learning.

- Using them as a springboard for discussion - Talk to your child about what's on the knowledge organisers.
- Quizzing - Crucially, all information on a knowledge organiser is quizzable. Fun, low stakes quizzes of the information will help children learn and remember the knowledge.
- Displaying them somewhere at home will enable your child to become more familiar with the knowledge.



South America

KEY VOCABULARY

Pangea	a supercontinent that broke apart 175 million years ago forming the continents we recognise today
rainforest	a dense forest, rich in biodiversity , that is often found in tropical areas and receives high levels of rainfall
subduction zone	an area where one tectonic plate is being forced under another , often creating mountain ranges
plateau	a flat area of land with high altitude
altitude	the height of a location , often relative to sea level
deforestation	the process of removing forest
biodiversity	the variety of plants and animals within a habitat



Atacama Desert



a desert plateau in South America located along the Pacific coast, west of the Andes Mountains

the Atacama Desert is the driest non-polar desert in the world

THE INCA EMPIRE

location	dates	places	language and communication
the Inca Empire spread along the Pacific coast from Ecuador to Chile	began in 1100 CE reached its height in 1530 declined in 1535	Cuzco: the Inca Capital located in Peru built in the shape of a puma Machu Picchu: high in the Andes mountains	Quechua (Ketch-wah): the single Inca language, spread across the empire, to encourage clarity of communication Quipu (Key-poo): lengths of knotted string, used to keep records and pass messages around the empire



factors leading to Amazon forest fires: dry weather with little rain, deforestation and logging, slash and burn forest removal



Africa



Mansa Musa

ruler of the Ancient Kingdom of Mali, thought to be the **richest man the world has ever known**





World War II



KEY VOCABULARY

encryption

a practice that involves codes and systems for changing messages so they **cannot be read by other people**

the Blitz

the name given to **Hitler's bombing campaign against the United Kingdom** that lasted for eight months in 1940 and 1941 (blitz is the German word for lightning)

evacuation

in World War II many children were **required to leave their homes, or evacuate, and move to safer places**, often in the countryside

the Holocaust

the name given to the **mass killing of European Jews** during World War II

genocide

the **deliberate killing, or murder, of a large number of people**, especially from the same ethnic group or religion

Enigma Machine

a **machine used by Nazi Germany during World War II** to code messages so they could not be read by the Allies: Alan Turing and his team cracked the Enigma Machine and the messages could be intercepted

Operation Sealion

Nazi Germany's **code name** for their plan to attack and invade the United Kingdom during the Battle of Britain

propaganda

information, of a biased or misleading nature, used to promote a political cause or point of view

the war was fought between

axis powers

Germany



Adolf Hitler

Italy



Benito Mussolini

Japan



Hideki Tojo

allied powers

United Kingdom



Winston Churchill

France



Charles De Gaulle

Soviet Union



Joseph Stalin

USA



Franklin D Roosevelt

English codebreakers



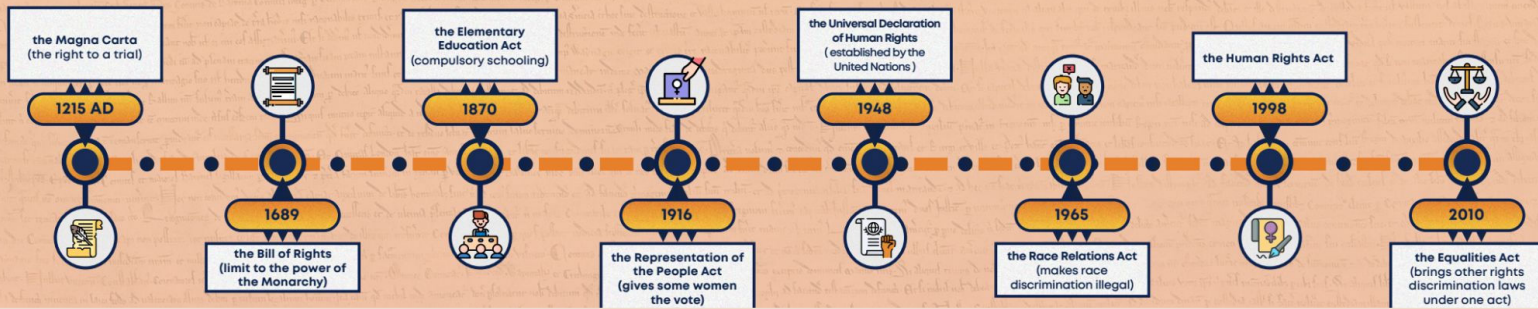
Alan Turing



Mavis Batey



Human Rights and Equality in Britain



KEY VOCABULARY

human rights	human rights are the basic rights and freedoms that belong to every person in the world: they include the right to life, freedom from slavery, and the right to work and education
discrimination	unfair treatment of someone or a group of people usually based on a person's gender, religion, nationality, ethnicity, race or other personal traits
race	a group of people who share some of the same distinctive traits , such as skin colour
ethnicity	the word ethnicity is derived from <i>ethnos</i> , a Greek word meaning "nation": an ethnic group usually shares common culture, background, religion, language
equality	equality is about ensuring everybody has an equal opportunity , and is not treated differently or discriminated against because of their characteristics
feminism	the belief that men and women should be treated equally and have the same rights and opportunities
treaty	an agreement
convention	an agreement

KEY LEGISLATION

Slavery Abolition Act 1833	abolished slavery throughout most of the British Empire
Race Relations Act 1968	a second law relating to race that made it illegal to refuse housing, employment or public services to a person on the grounds of race/ethnicity
Equal Pay Act 1970	gave women the right to equal pay as men
Convention for the Protection of Human Rights and Fundamental Freedoms	an international convention to protect human rights and political freedoms in Europe
UN adopted the Convention of the Rights of the Child 1989	an international human rights treaty that grants all children (aged 17 and under) a comprehensive set of rights (it came into force in UK 1992)




an organisation set up in 1945 to promote international cooperation and prevent and end wars: the UN also attempts to improve social conditions, promote economic development, public health, environmental conservation, and human rights

Knowledge Organiser: Light

Careers connected to Light: Photonics, Lighting technician, Optometrist, Photographic Processor

How We See



Light travels in **straight lines**. The light **rays** from a light source **reflect** off the object we are looking at. The light travels in a **straight line** and enters the eye through our **pupil**.

Bending Light



REFLECTION



Reflection

Light reflects off shiny, bright or light surfaces. That is why you can see your reflection when you look in a mirror.

Refraction

Water and bent shiny surfaces cause light rays to be reflected at different angles, meaning the reflection of the image is distorted.



Refraction



Shadows



Opaque objects block the light rays so they can only travel around the edges of the object in straight lines. That is why a shadow is the same shape as the object.

The **closer** an object is to the light source, the **bigger** the shadow.

The **further away** the object is from the shadow, the **smaller** the shadow.

Colours

Absorption and reflection of light



White light is made up of the colours of the rainbow. When light is refracted through a transparent object, a rainbow is formed.



A red object reflects red and absorbs others colors of white light



A white object reflects all colors of white light equally



An object is seen as black if it absorbs all colors of white light

Knowledge Organiser: Electricity

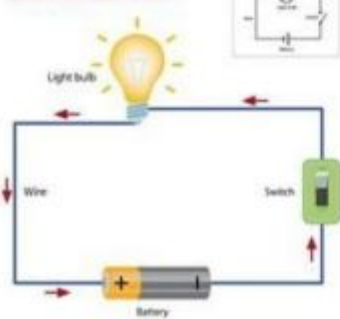
Careers connected to Electricity: mechanical engineering technician, electrical engineer, energy engineer, electricity distribution worker

Circuit Symbols



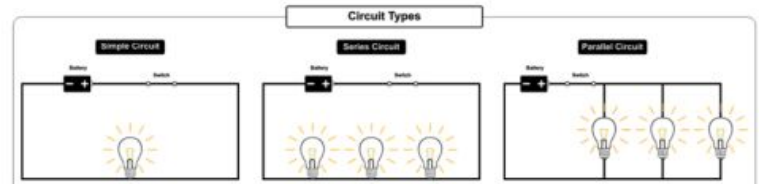
Wires are always drawn with a **straight line** using a **ruler** in scientific diagrams.

SIMPLE CIRCUIT

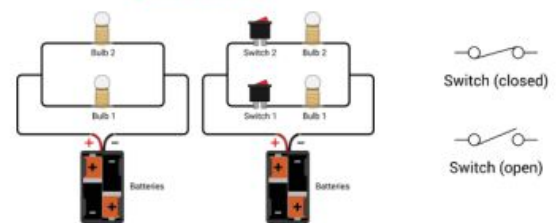
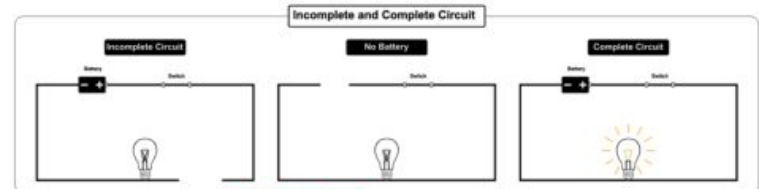


The **current** flows from negative to positive. There are no gaps - it is a **complete** circuit and the bulb lights up.

Different Circuits



Adding more cells (batteries) to a circuit will make bulbs **brighter**, buzzers **louder** and motors **faster**.



Switches can be placed in a **parallel circuit**, so that 1 light can be turned on while another is off (just like in a house).

Assessments

Summer Term

Understanding Standardised Scores

Pupil performance in assessments is measured using a standardised age score (SAS). Standardised age scores can range from 58 at the lowest end, to 142 at the highest end (depending on the test). The average standardised age score is 100. Please note that a child's score is an indication of their ability on any one occasion, as performance can be affected by a number of factors and should be considered together with other indicators of ability. Standardised age scores allow for a fair comparison of results, as they take into account:

- The number of questions answered correctly
- The difficulty of the questions answered
- The pupil's age at the time of assessment
- The pupil's performance compared to a national sample

Assessments taken by Form 6 children at Orchard House School in the Summer Term

PTM (Progress Test in Maths)

The Progress Test in Maths (PTM) is an attainment test that reflects current approaches to the assessment of Mathematics. Each test assesses key aspects of Maths appropriate to the age of the students, including Mental Maths for students. PTM measures students' mathematical skills and knowledge in areas such as number, shape, data handling and algebra, as well as their mathematical reasoning and problem solving. This paper based test yields both raw scores and standardised scores, which provides teachers with much useful information that can be used for both formative and summative purposes. This test will be taken in weeks 6-7 of the Summer term during Maths lessons.

PTE (Progress Test in English)

The Progress Test in English (PTE) is a test designed to assess each student's attainment in English. It is a paper based test and is tailored to the age of the child. For example, phonic knowledge and skills will be tested in the youngest age groups; spelling, punctuation and grammar will be tested in later years. This test will be taken in weeks 6-7 of the Summer term during English lessons.

NGRT (New Group Reading Test)

This is a standardised, adaptive, termly assessment to measure reading and comprehension skills against the national average. It is used to identify where intervention may be needed and to monitor progress made. This test will be taken termly in paper form during the 3rd-4th week of term during English lessons.

NGST (New Group Spelling Test)

The New Group Spelling Test (NGST) is an adaptive, digital assessment which allows termly monitoring of spelling skills, benchmarked against the national average. Questions are delivered via audio and the assessment is adaptive – meaning that questions change based on pupil's responses, so more able pupils can be challenged while weaker pupils are kept engaged. This test will be taken termly in its digital form during the 3rd-4th week of term during English lessons.