

Knowledge Organiser



YEAR

7



7 Ash Performing The Lion, the Witch and the Wardrobe

Using props to create their train carriages and thinking carefully about the colours of lighting they wanted to use to create the right atmosphere.

THE ENGAGED MIND STAYS SHARP.
BE ENGAGED IN THE HERE AND NOW.

Contents Page

Knowledge Organisers	3
How We Learn	4-6
Literacy Proofreading	7
English	8-10
Maths	11-12
Science	13-16
French	17-18
History	19-20
Geography	21-22
Computing	23-24
Art/ Design	25-28
Drama	29
Philosophy	30
Music	31
Literacy	32
PE	33-36



Equipment

all students must have...



Mobile phones are not to be used in lessons without staff permission

No photos or videos to be taken without permission

No school related images or videos to be uploaded on to social media

Black or blue pen
Pencils
Ruler - 30cm
Protractor
Compass
Rubber
Pencil Sharpener
Purple pen
Scientific calculator
Coloured crayons
Student Organiser
Knowledge Organiser
Locker Key

Knowledge Organisers at Redmoor Academy

WHY?

Why do we have knowledge organisers?

Your knowledge organisers help you to be successful in many ways. Firstly, they make the key elements of each topic clear, showing you what you need to have an excellent understanding of in order to be successful. If you know these elements, your teacher will help you to understand them.

WHAT?

What are my teachers' expectations of me?

In Year 7 and 8 your teachers will give you homework. You will be spending 20 minutes a week learning information from your knowledge organiser for each subject, with Sparx used for Maths and Literacy. In Year 9 this will increase to 30-40 minutes. Teachers will test you regularly to make sure that you are completing the homework and remembering your knowledge.

HOW?

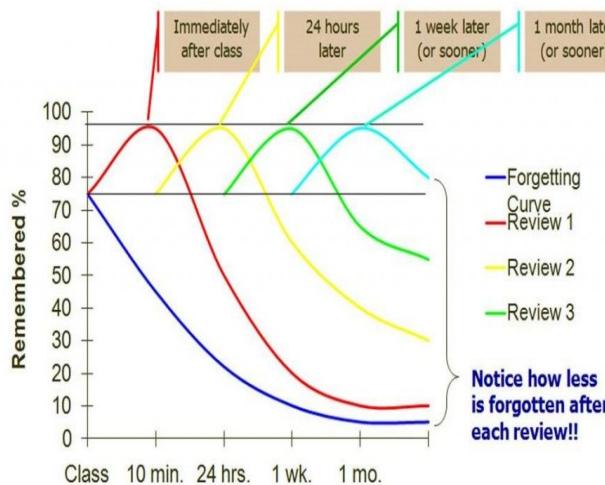
How will my teachers use them?

Core subjects will set homework once a week (others less often). This will help you to learn the most important knowledge for each topic. Teachers will also test you regularly to see how well you have remembered it. Research tells us that this practising is a really good way of helping you make sure that the knowledge stays in your memory. Over time, you will build on this knowledge to make sure that you know everything you need to for your subject. Sometimes you may have high stakes quizzes, where teachers will set a certain score that you have to reach to be successful.

How will they help me to be successful later on?

When it comes to GCSEs, you have lots of information to remember. Your knowledge organisers will gradually build up this knowledge over 5 years to help support you in Year 11. This means that when you revise you will just be recalling knowledge that you have already stored. Also, all of this practice with lots of different revision techniques now will help you when it comes to your final exams.

How we learn at Redmoor



Why reviewing your learning is so important

As soon as we are told a new piece of information, most of that information is 'lost' and forgotten. Hermann Ebbinghaus found that repeating information helps us remember more of it. This means we need to be reviewing and going over what we learn in order for us to remember and be able to use the information after a period of time has passed.

This resource summarises some proven strategies that you can use to review your knowledge.

Common methods of revision that are the **least effective**:

- Highlighting key points
- Re-reading
- Summarising texts



Retrieval practice

Testing what you know is a powerful tool in revision; the effort to remember something really strengthens your memory. Apps such as Memrise and Quizlet allow you to use or create your own quizzes based on topics. Create them, test yourself or get someone to test you. It works!

Learn more about retrieval practice here: [Link to the Learning Scientists](#)

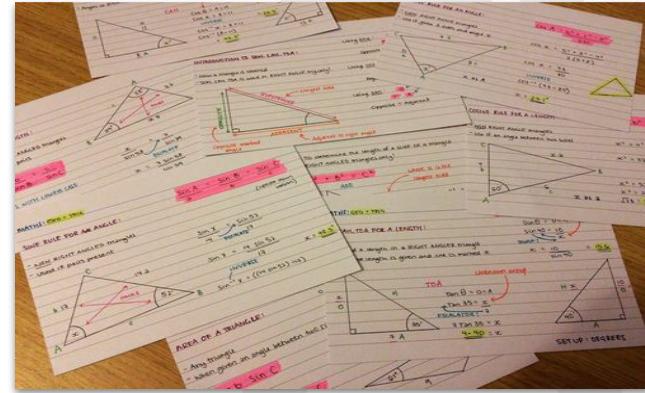
How we learn at Redmoor

Flash Cards

You can use these simply to create questions on one side and answers on the other. You might colour-code the cards for specific topics, and even include keywords and timelines.

Once you have created your flashcards you need to think about how you will use them effectively. There is a link below to a video helping you understand the Leitner system of using flashcards:

[YouTube: The Leitner Method](#)



Dual Coding



Dual coding is the process of combining verbal materials with visual materials.
You simply take information that you are trying to learn and draw visuals to go with it.

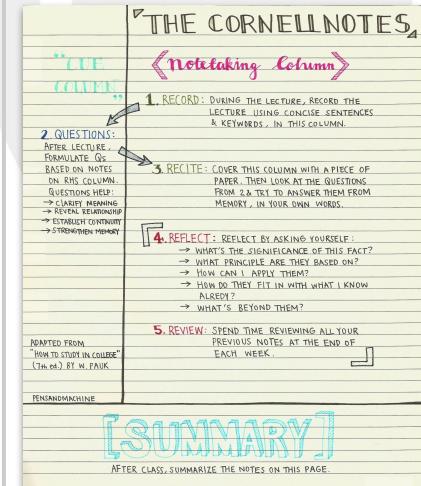
You can learn more about dual coding here:
[Link To The Learning Scientists](#)

Try to come up with different ways to represent the information. For example, you could draw a timeline, a cartoon strip or a diagram of parts that work together.

Cornell Notes

This method can be used in your revision books as a great method to get you to 'think' about your revision. You simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary

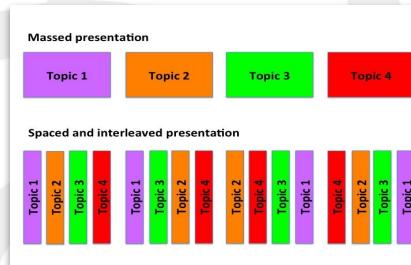


How we learn at Redmoor

Spacing and Interleaving

You shouldn't revise all of your topics in one go - this is called cramming. Instead, you should revise 'chunks' of a topic for small amounts of time, spending around 15-30 minutes on each. You should then move onto another 'chunk' from a different topic.

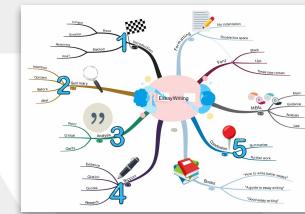
Eg. topic 1 is 'cells',
topic 2 is the 'digestive
system'.
This will improve your
memory!



Mind Maps

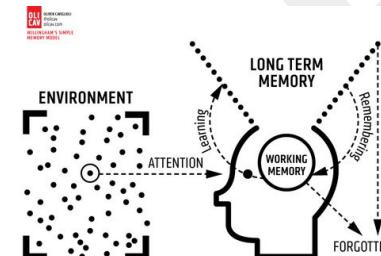
Mind mapping is simply a diagram used to visually represent or outline information. It is a powerful graphic technique you can use to translate what's in your **mind** into a visual picture.

Mind maps help with memorisation of key knowledge as they help to organise information and allow you to begin to make links and connections to different pieces of information. The use of visual images helps your brain to memorise the information with simple words next to them - and this links to dual coding!



Useful links:

- The learning scientists: <https://www.learningscientists.org/>
- Memrise: <https://www.memrise.com/>
- Quizlet: <https://quizlet.com/en-gb>
- Seneca: <https://www.senecalearning.com/>



Literacy

Proofreading Guidance

Full Stops & Commas

- A full stop gives a strong pause. It goes at the end of a whole sentence.

e.g. Jake had four brothers.
He got on best with Dan
who shared his sense of
humour.

- A comma gives a short pause and is used to separate items in a list e.g.

Bring some milk, eggs,
butter and flour.

After introductory words e.g.
However,

Between the different parts
of a sentence: Gran, who had
been a champion boxer in
the sixties, stepped forward.

Paragraphs

- Change in time, e.g. Later that day, an important letter arrived.

- Change in place, e.g. Back at home things were just as bad. / Chile, however, has a population of...

- Change of subject, e.g As well as mountain biking, I also enjoy swimming...

- Each time a different person speaks:

"Hey, that's my phone!"

"No it isn't - I had it for my
birthday."

When we write, we know what we're trying to say, so our brains might skip out words or punctuation. It is important that we proofread to avoid making silly mistakes.

Spelling Homophones

Words that sound the same but are spelt differently.

there , their , they're

They're silly to have left their coats over there where there is wet grass.

your , you're

You're such a good friend to lend me your phone.

to , two , too

Two of my friends are coming to Alton Towers too.

Grammar Errors

I have played tennis. ✓ I of played tennis. ✗

I should have / should've played tennis.

✓

I should of played tennis. ✗

I/she/he were late. ✗ I/she/he was late.

✓

They were late. ✓ They was late. ✗

You were late. ✓ You was late. ✗

I ran quick, passing the ball brilliant. I played amazing. ✗

I ran quickly, passing the ball brilliantly.

I played amazingly. ✓

Apostrophes

- Use an apostrophe to show possession e.g. John's football is flat.

- Also use an apostrophe for omissions (the apostrophe shows where a letter or letters are missing) e.g. I didn't do it. It wasn't me!

Capital Letters

- At the start of every sentence
- For days, months and celebrations, e.g. Wednesday, April, Easter
- For proper nouns (names of people and places) e.g. James, London, Rutland Water
- For Titles (except the small words) e.g. The Hunger Games, Match of the Day
- For abbreviations e.g. BBC, RSPCA

Correct Tense

Are you using the correct tense? Do not switch from one to another. - For days, months and celebrations,

Past: e.g. I ran to the shops.

Present: e.g. I am running to the shops

Future: e.g. I am going to run to the shops.

Literacy Marking Code:

sp	Spelling mistake
^	Missing word/letter
O	Capital letter/Punctuation
~~~~~	Unclear/poorly worded
//	New paragraph
<b>th</b>	Use a thesaurus
<b>w</b>	Wrong word

# Redmoor English: Articles

<b>BIG QUESTION:</b> What does it mean to analyse a text?	
<b>Comprehension</b>	The ability to read and understand the text.
<b>Deduction</b>	The conclusions made based on evidence you gather.
<b>Inference</b>	Use the information given to come to your own conclusions.
<b>Analysis</b>	Exploring the way a text has been put together through the language and structure.
<b>Literal</b>	Taking words at their most basic level.
<b>Figurative</b>	The metaphorical, symbolic meaning of a word or phrase.
<b>Language</b>	The words, phrases and techniques
<b>Structure</b>	The way ideas are organised in a text.
<b>Techniques</b>	Elements which the writer uses to emphasise certain ideas, themes or characteristics.

<b>BIG QUESTION:</b> How do I structure my articles?	
<b>Heading / Headline</b>	A short, catchy phrase designed to grab the reader's attention and summarise the content.
<b>Byline</b>	The name of the writer.
<b>Subheading</b>	A short introductory paragraph that is sometimes used underneath the heading.
<b>Hook</b>	An opening sentence that makes the reader want to continue.
<b>Summary</b>	A final paragraph that summarises the main points and often includes a final thought, a call to action, or a link back to the first paragraph.

<b>BIG QUESTION:</b> What literary techniques do articles use?	
<b>Metaphor</b>	Comparing something to something else.
<b>Simile</b>	Comparing something like it is something else using like or as.
<b>Irony</b>	When you expect something, but the opposite happens.
<b>Hyperbolises</b>	Exaggerates.
<b>Analogy</b>	A comparison between two different things to explain or clarify a complex idea by linking it to something familiar.
<b>Anecdote</b>	A short, personal story used as an example.
<b>Rhetorical Question</b>	A question asked, where you don't expect a response. Used to make a point.
<b>Juxtaposition</b>	Placing two opposing ideas side by side to highlight their differences.

<b>VOCABULARY TO ANALYSE...</b>	
<b>Word</b>	<b>Definition</b>
<b>To imply</b>	To suggest
<b>To connote</b>	To suggest
<b>To amplify</b>	To exaggerate
<b>To justify</b>	To reinforce
<b>To highlight</b>	To exaggerate
<b>To reinforce</b>	To strengthen
<b>To criticise</b>	To disapprove with
<b>To expose</b>	To share

# Redmoor English: Shakespeare's *The Tempest*

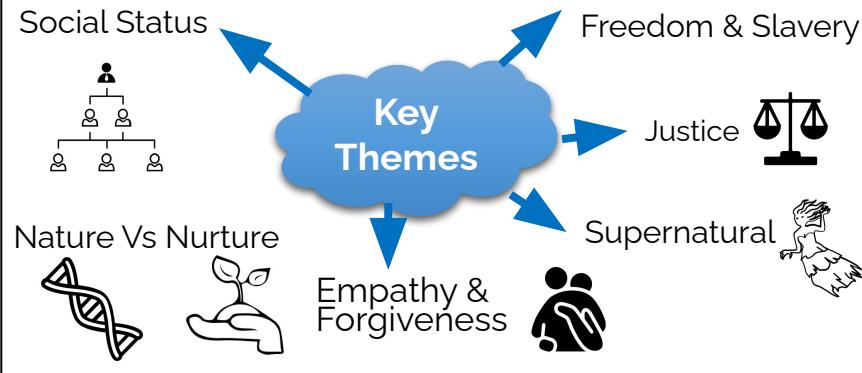
BIG QUESTION: Who are the characters?			
	<b>Prospero</b> – The rightful Duke of Milan.		<b>Ariel</b> – an airy spirit; a slave of Prospero's who earns his freedom.
	<b>Miranda</b> – Prospero's daughter.		<b>Caliban</b> – a savage and deformed slave of Prospero's; a native of the island.
	<b>Antonio</b> – Prospero's usurping brother.		<b>Stephano</b> – a drunken butler.
	<b>Alonso</b> – King of Naples.		<b>Trinculo</b> – a jester.
	<b>Sebastian</b> – Alonso's brother.		<b>Ferdinand</b> – Alonso's son.
	<b>Gonzalo</b> – the old counsellor to the king.	<b>MINOR CHARACTERS:</b> <b>Adrian, Francisco</b> – Lords Master of the Ship, <b>Boatswain</b> , Mariners <b>Spirits</b> – <b>Iris, Ceres, Juno, Nymphs, Reapers</b> (in the masque).	

Famous sayings from *The Tempest*:

'into thin air'  
 'brave new world'  
 'in a pickle'  
 'sea change'



## BIG QUESTION: What are the key themes?



## BIG QUESTION: What is the key vocabulary?

<b>Colonialism</b> (noun)	When one country establishes itself in another country. When someone colonises (verb) a new country, they are called a coloniser (noun).
<b>Natives</b> (noun)	The original inhabitants of the land.
<b>Usurp</b> (verb)	To take control of someone else's power when you do not have the right to. Someone who usurps is called a usurper (noun).
<b>Tempest</b> (noun)	A violent storm.
<b>Treason</b> (noun)	A crime that harms your country or government. Someone who commits treason is a traitor (noun).
<b>Callous</b> (adjective)	When someone is cruel and does not care about other people.
<b>Pathos</b> (noun)	A situation that makes us feel sympathy or sorrow.
<b>Duality</b> (noun)	Having two sides.
<b>Nurture</b> (verb)	To encourage or support the development of someone or something.
<b>Tragedy</b> (noun)	A play that has some features of a tragedy and some features of a comedy.

# Redmoor English: Shakespeare's *The Tempest*

BIG QUESTION: What dramatic devices are used in <i>The Tempest</i> ?		BIG QUESTION: What historical and cultural context shaped <i>The Tempest</i> ?	
<b>Dramatic irony</b>	This is when the audience knows something that the characters don't. We see that Ariel pretends to be a monster to scare Antonio, King Alonso and their men.	<b>Shakespearean Era</b>	Shakespeare was born in the Elizabethan era, named after Elizabeth I. After she died, James I became king. This period of history is called the Jacobean era, because Jacob is Latin for James. Shakespeare lived and worked in both eras. <i>The Tempest</i> is believed to be one of Shakespeare's last plays (first performed 1611) so was written in the Jacobean era.
<b>Stage directions</b>	The stage directions tell the actors what to do and how to do it. We are told who enters and when, as well as what they do: 'Lays down his mantle.'	<b>The Great Chain of Being</b>	The Great Chain of Being is a medieval metaphor illustrating the hierarchy of being from God to the lowliest non-being. The 'chain' stretches from the foot of God's throne to the tiniest particle of sand: a place for everything, and everything in its place.
<b>Set Design</b>	The sets are used to tell us about the locations to demonstrate the action and exciting locations. For example, the play opens with ' <b><i>On a ship at sea: a tempestuous noise of thunder and lightning heard.</i></b> '	<b>Italian City States</b>	A city-state is an area that is ruled by a major city. During the Elizabethan and Jacobean era, Italy wasn't one unified country, but a number of city-states, Milan being one.
<b>Soliloquy</b>	When a character speaks their thoughts aloud when by themselves or regardless of any hearers, especially by a character in a play.	<b>Exploration</b>	Sea exploration was booming in the Elizabethan era as people 'discovered' new parts of the world. Queen Elizabeth I was obsessed with their discoveries and was happy to pay for their travels. Led by her example, the rest of the country was also fascinated by their stories and goods.
<b>Comedy</b>	<b>Shakespeare comedies</b> are plays full of fun, irony and dazzling wordplay. They also have disguises and mistaken identities, with happy endings.	<b>Shipwreck</b>	Shakespeare is thought to have based his play <i>The Tempest</i> on a real-life shipwreck. William Strachey's <i>A True Reportory of the Wracke and Redemption of Sir Thomas Gates, Knight</i> , an account of his experience during the wreck of the ship <i>Sea Venture</i> on the island of Bermuda, was written in 1609, and many scholars believe that the Bard read this account and used it as inspiration for <i>The Tempest</i> .
<b>Dialogue</b>	<b>Dialogue</b> is the exchange of spoken words between two or more characters in a book, <b>play</b> , or other written work.	BIG QUESTION: What are the key quotations?	



1. "in my **false** brother / Awaked an **evil** nature." (Prospero, I.ii)
2. "You taught me **language**, and my profit on't / Is I know how to **curse**." (Caliban to Prospero, I.ii)
3. "**abhorred slave... vile race**" (Miranda to Caliban, I.ii)
4. "My **strong** imagination sees a **crown dropping** upon thy head." (Antonio to Sebastian, II.i)
5. "I'll show thee every fertile inch o'th'island; And I will **kiss thy foot**: I prithee, **be my god**." (Caliban to Stephano, II.ii)
6. "I am **your wife**, if you will marry me. / If not, **I'll die your maid**." (Miranda to Ferdinand III.i)
7. "Be not afraed. The isle is **full of noises, / Sounds, and sweet** airs, that give delight and hurt not." (Caliban, III.ii)
8. "You are **three men of sin**, whom Destiny, / That hath to instrument this **lower world...** / Hath caused to belch up you;... you 'mongst men / Being most unfit to live." (Ariel III.iii)
9. "help to celebrate a **contract of true love**" (Prospero, IV.i)
10. "I'll **break my staff... I'll down my book**" (Prospero, V.i)

# Y7 Spring MATHS – Mastery

Sparx Code	TOPIC	Covered in lessons	R/A Reviewed
		RAG	
M269	Finding the area of compound shapes		
M996	Finding the area of compound shapes containing triangles		
Q566	Negative temperatures and scales		
M527	Ordering negative numbers		
M106	Adding and subtracting with negative numbers		
M681	Value for money		
M892	Using clocks		
M515	Converting units of time		
M627	Calculating with time		
M747	Using calendars		
M963	Using timetables		
M813	Algebraic notation		
M830	Algebraic terminology		

Sparx Code	TOPIC	Covered in lessons	R/A Reviewed
		RAG	
M795	Simplifying expressions containing a single variable		
M531	Simplifying expressions containing multiple variables		
M949	Simplifying expressions containing non-linear terms		
M175, M428	Function machines		
M707	Solving equations with one step		
M634	Solving equations of the form $ax+b=c$ * Link with perimeter and area		



<b>60</b>	seconds	<b>=</b>	<b>1</b>	minutes
<b>60</b>	minutes	<b>=</b>	<b>1</b>	hour
<b>24</b>	hours	<b>=</b>	<b>1</b>	day
<b>7</b>	days	<b>=</b>	<b>1</b>	week
<b>52</b>	weeks	<b>=</b>	<b>1</b>	year

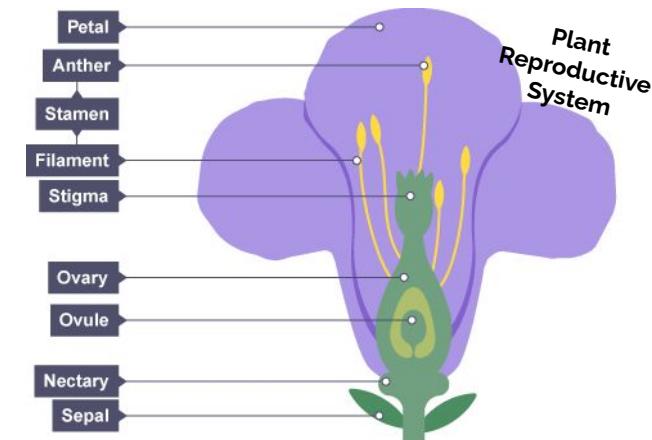
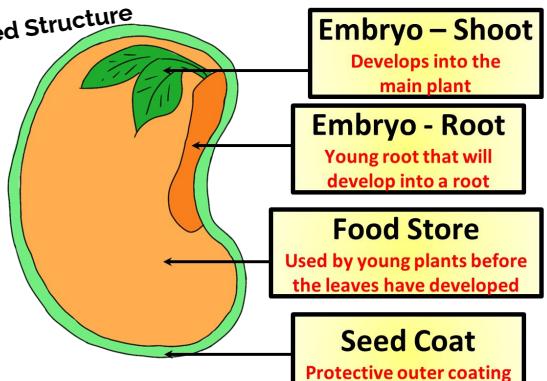
# Y7 MATHS Spring - Stretch

Sparx Code	TOPIC	Covered in lessons	RAG	R/A Reviewed
M390	Finding the area of rectangles			
M269	Finding the area of compound shapes			
M610	Finding the area of triangles			
M996	Finding the area of compound shapes containing triangles			
M618	Reading and plotting coordinates			
M230	Solving shape problems involving coordinates			
M227	Finding the lowest common multiple			
M823	Finding factors and using divisibility tests			
M698	Finding the highest common factor			
M322	Finding prime numbers			
M108	Prime factor decomposition			
M158	Finding fractions of shapes			
M939	Constructing fractions			
M410	Finding equivalent fractions			
M671	Simplifying fractions			
M601	Converting between mixed numbers and improper fractions			

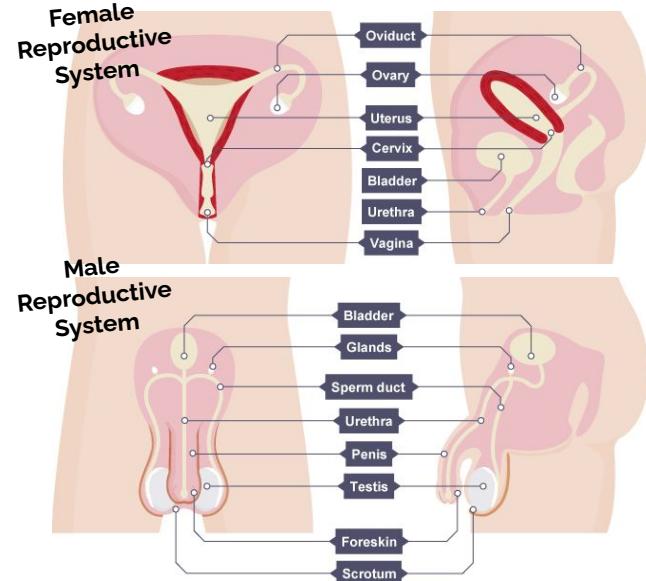
Sparx Code	TOPIC	Covered in lessons	RAG	R/A Reviewed
M335	Ordering fractions			
M901	Adding and subtracting fractions and			
M835	Adding and subtracting mixed numbers			
M792	Expanding single brackets and simplifying expressions			
M637	Using the distributive law			
M237	Expanding single brackets			
M100	Factorising into one bracket			
M901	Financial terminology and calculations			
M502	Types of angles			
M541	Estimating angles			
M780	Measuring angles			
M331	Drawing angles			
M818	Angles on a line and about a point			
M163	Vertically opposite angles			
M351	Angles in triangles			



# Science: Reproduction

BIG QUESTION How are new plants made?	
<b>Anter</b>	Part of the stamen that produces the pollen grains containing the male gamete.
<b>Pollination</b>	Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma. This results in Fertilisation.
<b>Seed dispersal</b>	The transport of seeds from the plant to another area in order to grow.
<b>Germinate</b>	The process controlled by enzymes in which the seed begins to develop into a new young plant.
<b>Stigma</b>	The top of the female part of the flower which collects pollen grains.
<b>Pollination</b> <b>Pollen lands on the stigma</b>	
<b>A pollen tube forms in the style</b>	
<b>The pollen nucleus travels down the tube to the ovary</b>	
<b>The pollen nucleus joins with the ovule nucleus</b>	
<b>After fertilisation a seed will form</b>	

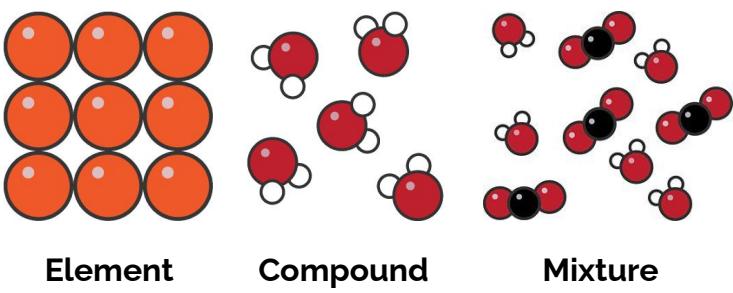
BIG QUESTION How are new humans made?	
<b>Embryo</b>	An organism in the early stages of development.
<b>Fertilisation</b>	When a male and female gamete join together. This takes place in the oviduct.
<b>Foetus</b>	Unborn baby.
<b>Gamete</b>	Sex cell (sperm in males and ova/eggs in females).
<b>Menstruation</b>	Also called a 'period'. The loss of blood and tissue from the lining of the uterus through the vagina during the menstrual cycle.
<b>Placenta</b>	The organ in the uterus of pregnant mammals that allows the transfer of nutrients and waste products between the mother and the fetus through the umbilical cord.
<b>Puberty</b>	The stage in life when a child's body develops into an adult's body. The changes take place gradually, usually between the ages of 10 and 16.
<b>Sexual reproduction</b>	The formation of a new organism by combining the genetic material of two organisms.
<b>Umbilical Cord</b>	The cord that connects the fetus (foetus) to the placenta. It contains blood vessels.
<b>Uterus</b>	Also known as a womb. This is where the fertilised egg (ovum) develops.
<b>Zygote</b>	A fertilised egg cell.





# Science: The Periodic Table

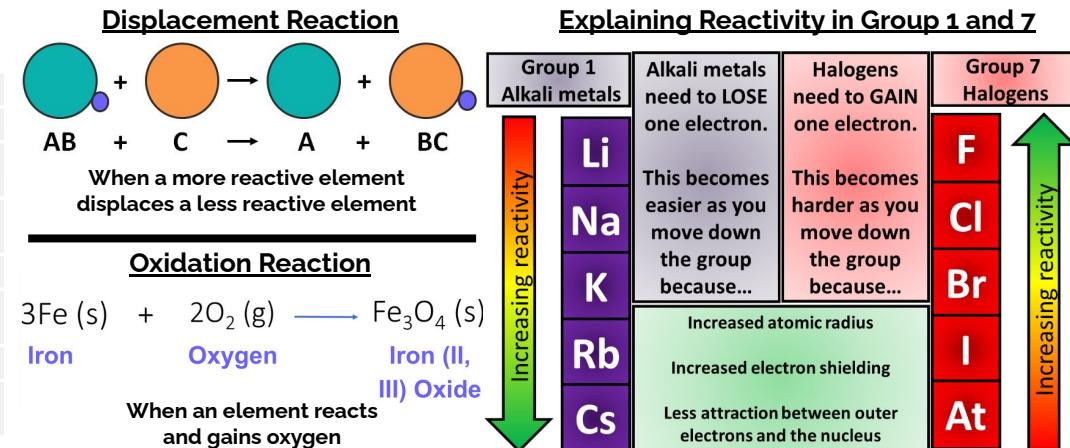
BIG QUESTION What are atoms and elements?	
<b>Atom</b>	Smallest part of an element
<b>Element</b>	Substance made of one type of atom
<b>Compound</b>	Substance made of more than one type of atom chemically bonded together.
<b>Proton</b>	Positively charged particle found in nucleus of atom
<b>Neutron</b>	Neutrally charged particle found in nucleus of atom
<b>Electron</b>	Negatively charged particle found on shells surrounding the nucleus of atom.

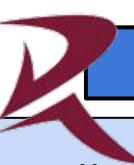


## The Properties of Metals and Non-Metals

	Metals	Non-metals
<b>Appearance</b>	Shiny	Dull
<b>State at room temperature</b>	Solid (except mercury, which is a liquid)	About half are solids, about half are gases, and one (bromine) is a liquid
<b>Density</b>	High (they feel heavy for their size)	Low (they feel light for their size)
<b>Strength</b>	Strong	Weak
<b>Malleable or brittle</b>	Malleable (they bend without breaking)	Brittle (they break or shatter when hammered)
<b>Conduction of heat</b>	Good	Poor (they are insulators)
<b>Conduction of electricity</b>	Good	Poor (they are insulators, apart from graphite)

BIG QUESTION What are the patterns in the properties of elements?	
<b>Reactive</b>	When a substance chemically bonds with another easily.
<b>Unreactive</b>	A substance that will not chemically react with another easily.
<b>Trend</b>	Pattern of reactivity of elements.
<b>Chemical properties</b>	Properties that are observed during a chemical reaction.
<b>Physical properties</b>	A property of a material that you can observe or measure.
BIG QUESTION How can we use the Periodic table to predict element properties?	
<b>Period</b>	A horizontal row in the periodic table.
<b>Group</b>	A vertical column in the periodic table containing elements with similar chemical properties.
<b>Melting point</b>	Temperature at which a substance melts.
<b>Reactivity</b>	How readily a substance reacts with another substance.
BIG QUESTION Describe the reactions of different elements?	
<b>Alkali metals</b>	Group 1 elements that are very reactive.
<b>Halogens</b>	Group 7 elements that are reactive and toxic.
<b>Noble gases</b>	Group 0 elements that are unreactive.
<b>Displacement reactions</b>	When a more reactive metal takes the place of a less reactive metal in a compound.
<b>Oxidation</b>	When an element reacts and gains oxygen.





# Science: Energy

$$\text{Efficiency} = \frac{\text{Useful energy/power output}}{\text{Total energy/power input}}$$

## BIG QUESTION: How is energy stored and transferred?

<b>Energy</b>	The ability to do work.
<b>System</b>	An object or group of objects.
<b>Transferred</b>	When something has been moved from one place to another.
<b>Work done</b>	Energy transferred.
<b>Energy store</b>	Different ways in which energy can be stored, including: chemical, thermal, gravitational potential, elastic potential, kinetic.
<b>Conservation of energy</b>	Energy cannot be created or destroyed. Energy can be transferred between energy stores or dissipated.
<b>Dissipation</b>	Process of energy being transferred, or lost, to the surroundings.
<b>Energy transfer</b>	The different ways in which energy can be transferred between stores, including: by force (mechanically), by heating, by radiation (waves) and by electrical current.

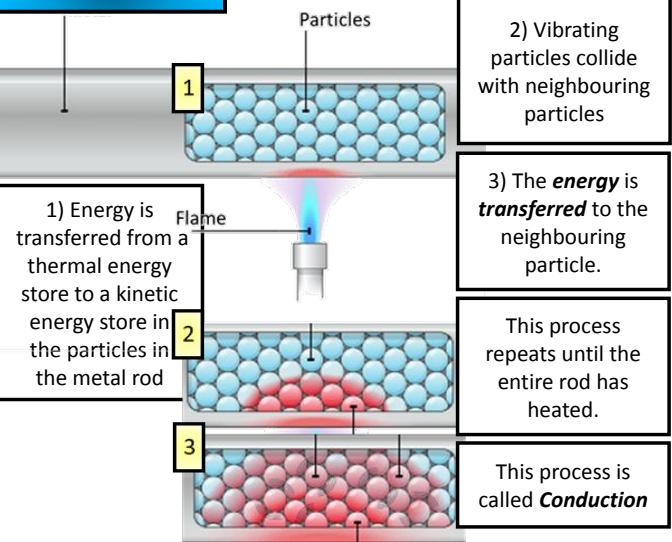
## BIG QUESTION: Are all energy transfers useful?

<b>Thermal conductivity</b>	A measure of how well a material conducts energy when it is heated.
<b>Conductor</b>	A material that allows thermal energy and charge to transfer through it easily. Has a high thermal conductivity.
<b>Insulator</b>	A material that does not allow thermal energy or charge to transfer through it easily. Has a low thermal conductivity.
<b>Conduction</b>	The transfer of thermal energy through a material by transferring kinetic energy from one particle to another.
<b>Convection</b>	The transfer of thermal energy through a liquid or gas.
<b>Infrared radiation</b>	Electromagnetic radiation emitted from an object.
<b>Emitted</b>	Process of sending out energy.
<b>Reflected</b>	When waves bounce off of a surface.

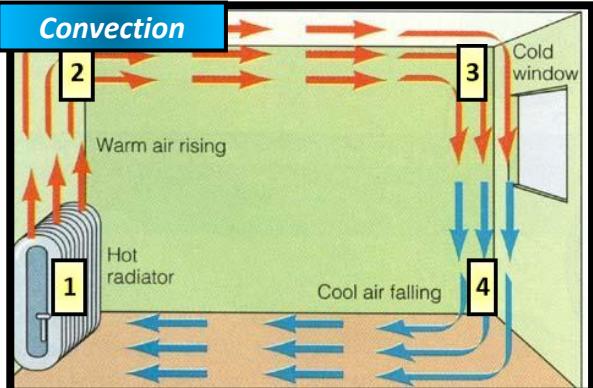
## BIG QUESTION: How can we compare different energy resources?

<b>Energy resource</b>	Useful supply or store of energy.
<b>Finite</b>	Something that has a limited number of uses before it is depleted.
<b>Renewable</b>	A resource that is replenished at the same rate it is used.
<b>Non-renewable</b>	A resource that is used up faster than it is replenished.
<b>Fossil fuel</b>	Natural resource formed from the fossilised remains of dead animals and plants. Examples include: oil, coal and natural gas.

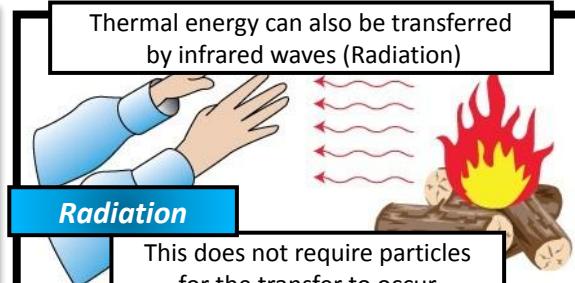
### Conduction



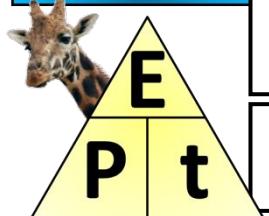
### Convection



Thermal energy can also be transferred by infrared waves (Radiation)



$$\text{Power} = \text{Energy} \div \text{Time}$$

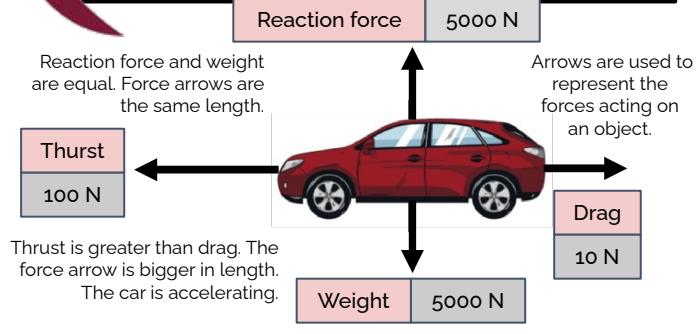


**Power** is the **energy** that is **transferred per second**

**Power** is measured in **Watts (W)** and **Kilowatts (kW)**



# Science: Forces



$$\text{Weight (N)} = \text{Mass (kg)} \times \text{Gravitational field strength (N/kg)}$$

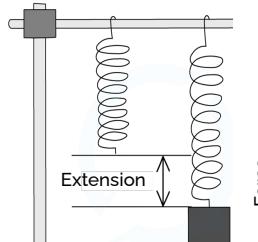
## BIG QUESTION

### How can forces affect the rotation and shapes of objects?

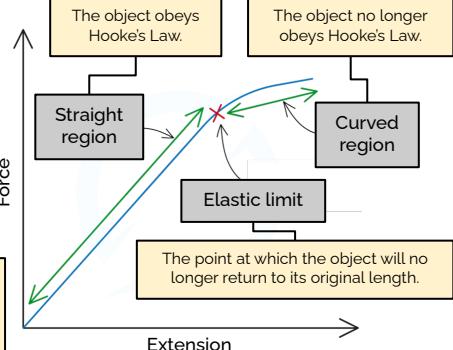
<b>Moment</b>	The turning effect of a force about a pivot, measured in Newton-metres (Nm).
<b>Elastic</b>	Materials that return to their original shape once the force is removed
<b>Hooke's Law</b>	The extension of an elastic object (like a spring) is directly proportional to the force added.

$$\text{Moment (Nm)} = \text{Force (N)} \times \text{Perpendicular distance (m)}$$

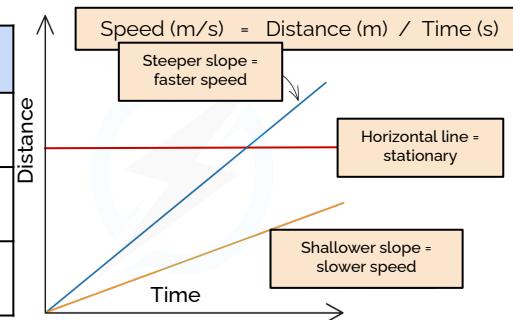
$$\text{Force (N)} = \text{Spring constant (N/m)} \times \text{Extension (m)}$$



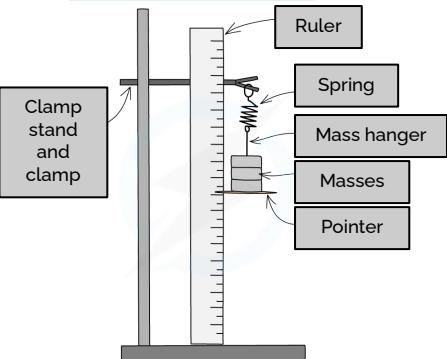
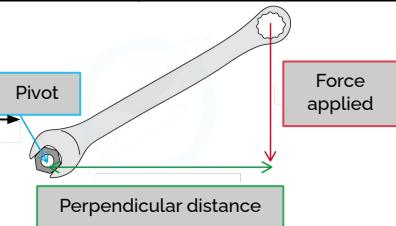
$$\text{Extension} = \text{Final length (m)} - \text{Original length (m)}$$



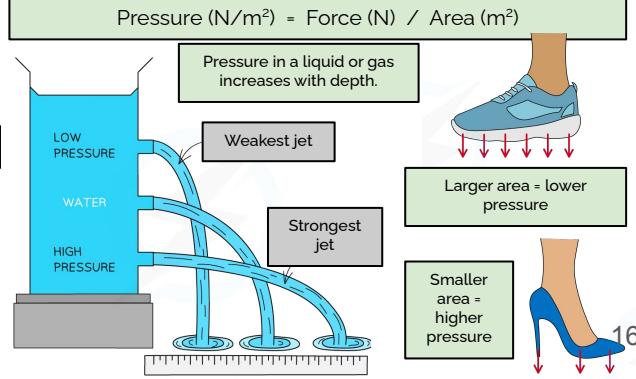
BIG QUESTION	
What is meant by resultant force and what are its effects?	
<b>Force</b>	A push or a pull that acts on an object, measured in Newtons (N).
<b>Contact force</b>	A force that acts between two objects that are physically touching.
<b>Non-contact force</b>	A force that acts between two objects that are not physically touching.
<b>Resultant force</b>	The overall force acting on an object when multiple forces are acting on the object.
<b>Friction</b>	A force that opposes the movement of an object.
<b>Weight</b>	A force that acts on an object that is within a gravitational field. Measured in Newtons (N).
<b>Mass</b>	A measure of the amount of matter (stuff) an object is made out of. Measured in kilograms (kg).



BIG QUESTION	
What is the relationship between speed, distance and time?	
<b>Speed</b>	Speed is a measure of how fast an object is moving.
<b>Distance</b>	How far an object has travelled, measured in metres (m).
<b>Acceleration</b>	Describes an object which is increasing in speed.



BIG QUESTION	
How is pressure different in solids, liquids and gases?	
<b>Pressure</b>	Force applied per unit area.
<b>Upthrust</b>	Force that pushes objects upwards in a liquid or gas.



# Year 7 French Spring 1 Ma famille

Quelle est la date de ton anniversaire?  
When is your birthday?

Mon anniversaire est le (number) (month) My birthday is the (number) (month)  
Son anniversaire est le (number) (month) His / her birthday is the (number) (month)

Comment est ta famille ? Describe your family.
Dans ma famille, il y a <i>in my family there are</i>
__ personnes: __ people:
Mon (beau) père, ma (belle) mère, mon (beau) frère, ma (belle) soeur mes frères, mes soeurs <i>my brothers / my sisters</i> et moi <i>and me</i>
Il / elle s'appelle __ he / she is called __ Ils / elles s'appellent __ they are called __

1st of the month = le premier					
2 deux	3 trois	4 quatre	5 cinq	6 six	7 sept
8 huit	9 neuf	10 dix	11 onze	12 douze	13 treize
14 quatorze	15 quinze	16 seize	17 dix-sept	18 dix-huit	19 dix-neuf
20 vingt	21 vingt-et-un	22 vingt-deux	23 vingt-trois	24 vingt-quatre	25 vingt-cinq
26 vingt-six	27 vingt-sept	28 vingt-huit	29 vingt-neuf	30 trente	31 trente-et-un

janvier	juillet
février	août
mars	septembre
avril	octobre
mai	novembre
juin	décembre

Décris-toi Describe yourself. Comment est _____ ? Describe your _____.

Verb	Build	Eyes	Eye colour	And hair	Colour	And style
Je suis I am	grand(e) tall	J'ai les yeux I have __ eyes	bleus blue	et les cheveux and __, __ hair	bruns brown	et longs long
Mon père est My Dad is	petit(e) small	Il a les yeux He has __ eyes	marron brown		blonds blonde	et courts short
Ma mère est My Mum is	de taille moyenne average height		verts green		noirs black	et raides straight
Mon frère est My Brother is	mince thin		noisette hazel		roux red / ginger	et bouclés curly
Ma soeur est My Sister is	gros(se) fat	Elle a les yeux she has __ eyes	gris grey			et ondulés wavy

Je l'aime I like him OR I like her

car **il** est because he is

car **elle** est because she is

sympa nice

drôle funny

généreux / généreuse generous

intelligent(e) clever

calme calm

travailleur / travailleuse  
hard-working

Remember word order when translating: J'ai les yeux bleus et les cheveux bruns et courts = I have blue eyes and short, brown hair

# Year 7 Spring 2 KO: Je m'entends bien avec...

Tu es de quelle nationalité ? What is your nationality?				
Verb	nationality	and / but	my __ is	nationality
Je suis <i>I am</i>	anglais(e) <i>English</i>	et and	mon grand-père est <i>my grandad is</i>	indien(ne) <i>Indian</i>
Mon père est <i>My Dad is</i>	écossais(e) <i>Scottish</i>		ma grand-mère est <i>my grandma is</i>	chinois(e) <i>Chinese</i>
Ma mère est <i>My Mum is</i>	irlandais(e) <i>Irish</i>	mais but	mon ami est <i>my friend is</i>	polonais(e) <i>Polish</i>
	gallois(e) <i>Welsh</i>		mon amie est <i>my friend is</i>	roumain(e) <i>Romanian</i>
	français(e) <i>French</i>			italien(ne) <i>Italian</i>
	espagnol(e) <i>Spanish</i>			allemand(e) <i>German</i>

C'est quoi, un bon ami ? What are the qualities of a good friend?			
Opinion phrase	A good friend	Is someone who	Rest of phrase
À mon avis <i>In my opinion,</i>	un bon ami	est quelqu'un qui	écoute bien <i>listens well</i>
Je pense qu' <i>I think that</i>	une bonne amie		est patient(e) <i>is patient</i>
Je dirais qu' <i>I would say that</i>		est une personne qui	est <i>is</i>
Pour moi <i>For me,</i>			généreux/généreuses <i>is generous</i>

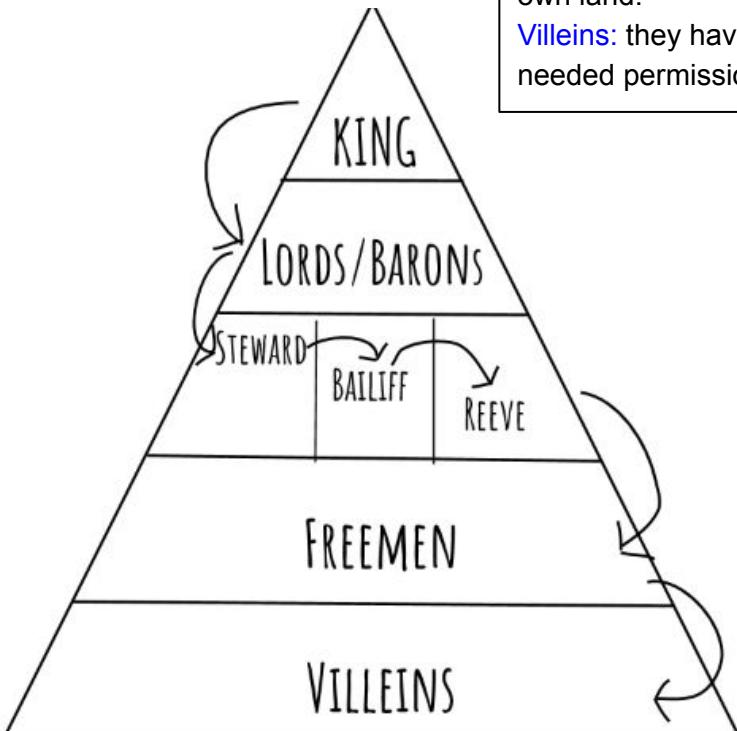
Tu t'entends bien avec _____ ? Do you get on well with _____ ?						
Relationship phrase	Family member	Because	s/he is	intensifier	adjective	However...
Je m'entends bien avec <i>I get on well with</i>	mon père <i>my Dad</i>	car because	Il est <i>he is</i>	vraiment <i>really</i>	sympa nice	cependant
	ma mère <i>my Mum</i>	parce que because		très <i>very</i>	drôle funny	
Je ne m'entends pas bien avec <i>I don't get on well with</i>	mon frère <i>my Brother</i>	puisque since		patient(e) <i>patient</i>	patient(e) patient	pourtant
	ma soeur <i>my sister</i>	donné que given that	elle est <i>she is</i>	un peu <i>a bit</i>	agaçant(e) <i>annoying</i>	
Je me dispute avec <i>I argue with</i>	mon ami <i>my friend (m.)</i>			assez <i>quite</i>	méchant(e) <i>mean</i>	
	mon amie <i>my friend (f.)</i>				égoïste selfish	

After using this word, loop back to the beginning of the SB to extend your work.

# YEAR 7 HISTORY: MEDIEVAL LIFE & POWER



## THE FEUDAL SYSTEM



### THE FEUDAL SYSTEM:

**Lords / Barons:** how society was organised

**Steward:** appointed by the lord, tells the bailiff what to do and punishes peasants who don't work hard.

**Bailiff:** I tell the reeve what work the peasants must do and report back to the lord.

**Reeve:** Makes sure the peasants work hard, will report those who don't to the bailiff. Is given extra land

**Freeman:** rent strips of land from the lord, they have to work for the lord and have time to farm their own land.

**Villeins:** they have to work for the lord but get strips of land in return, freedom was limited and they needed permission from the lord for many things, including leaving the village.

### EVERYDAY LIFE:

**Feudal System:** how society was organised

**Week-work:** work for the Lord that would have had to be completed by a villein each week.

**Boon-work:** work for the Lord that would have had to be completed by both villeins & freemen.

**Duties:** extra jobs for the Lord of the Manor which peasants could pay to get out of.

**Open Field System:** three-field system, where wheat and oats would be grown.

**Strip Farming:** land was divided into strips and given out to peasants to farm.

**Fallow:** a field left empty after being ploughed to restore its fertility.

**Enclosure:** the practice of fencing off common land to farm sheep, ended strip farming.

# YEAR 7 HISTORY: MEDIEVAL LIFE & POWER



## RELIGION:

**Heaven:** the place believed souls would go, after death, if they lived good lives.

**Hell:** the place believed souls would go, after death, if they lived bad lives.

**Sins:** doing something that God would not agree with.

**Doom Paintings:** paintings in churches throughout Medieval England to remind peasants of what would happen if they lived good lives (Heaven) and what would happen if they lived bad lives (Hell).

**Purgatory:** a place between heaven and hell where souls go to have their sins burnt away.

**Church Courts:** Could try any churchman (clergy) accused of crime.

**Benefit of clergy:** priests tried in church courts, no death penalty

**Right of sanctuary:** a criminal could not be arrested in church, if confessed could leave the country.

## JUSTICE:

**Tithing:** A group of 10 males over 12 who were responsible for each other in the eyes of the law.

**Hue and Cry:** a loud cry calling for the pursuit and capture of a criminal. Everyone in the village would be expected to pursue the criminal.

**Manorial Court:** The court within each Lord's land that would deal with law and order.

**Jury:** A group of peers who would hear cases at court and decide if innocent or guilty.

**Trial by Ordeal:** a painful/extreme trial to decide innocence/guilt through the judgement of God.

**Trial by Combat:** a trial (fight) to settle disputes with no witness or confessions.

**1066:** Trial by Combat introduced.

**1215:** Trial by Ordeal abolished.



## POWER:

**Divine Right of Kings:** The belief that God gave complete control to the King.

**Henry II:** A Plantagenet King of England.

**1154-1189:** Henry II reign.

**The Pope:** Head of the Catholic Church.

**Thomas Becket:** A Churchman who was Henry's friend.

**1161:** Becket was appointed as Archbishop of Canterbury.

**John I:** Henry II's son

**1199-1216:** John I's reign.

**Barons:** a different term for the Lords.

**1214:** John I cannot raise an army and loses the Battle of Bouvines to the French King. .

**1215:** The Magna Carta signed

**Magna Carta:** a 'charter' that limited the King's power.

**1216:** Civil War between the Barons and the John I.

## THE BLACK DEATH:

**Black Death:** A plague that devastated Europe in the fourteenth century. Spread by fleas.

**Buboes:** Onion shaped swellings that were usually the first symptom of the Black Death.

**Bubonic plague:** the most common type of plague, named after the buboes.

**1347:** Black Death hits Venice (Italy)

**June 1348:** Black Death arrived in England (Dorset).



## THE PEASANTS' REVOLT.

**Statute of Labourers:** a law which fixed peasant wages at the pre-Black death rate.

**Peasants' Revolt:** major uprising across England in 1381.

**Wat Tyler:** Leader of the Peasants' Revolt

**1351:** Edward III introduces the Statute of Labourers

**1377:** Poll tax - peasants had to pay more money to pay for a war with France.

**May 1381:** Peasants refused to pay. Peasants' Revolt began.

**15 June 1381:** Richard II meets the rebels. Wat Tyler was killed

# Year 7 Geography - Africa

The average age across the population of Africa is 19 years. With only 15% of the world's people, Africa produces less than 5% of carbon dioxide emissions.

**Largest Country: Algeria.** This country is among the ten largest countries in the world.

The most populous country in Africa, however, is Nigeria, with more than 185 million people, but the country is only a third of the size of Algeria.

**Largest City:** Lagos in Nigeria. With more than 21 million inhabitants, Lagos is also one of the biggest metropolitan cities in the world and is estimated to become the world's largest city by 2100.

**Smallest Country: Seychelles, which is an archipelago (nation of islands) in the Indian Ocean. On the African mainland, the smallest country is The Gambia.**

## KIBERA - Kenya

- Largest slum in Kenya
- 60% of the people that live in Nairobi live in slums
- Between 800,000 and 1 million people live in Kibera
- 255 ha (around the size of 255 football pitches)
- Extremely high population density
- 1 meter of floor space per person
- There are around 100,000 orphans - this is due in part to the AIDS epidemic in Kibera

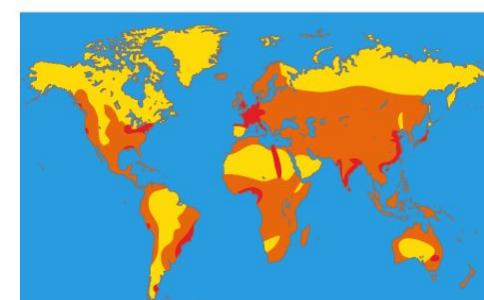
## Africa is Not A Country! It's a Continent of 54 countries



## 16 Subject Specific Key Terms

Africa	One of the seven continents.	Population Density	The number of people in a given area. Usually measured in square km.
Consumers	Those who will purchase the finished product, e.g. someone who buys a chocolate bar from a shop.	Population Distribution	The spread of people across a given area; where people live.
Country	Humans have divided continents up into political units called countries. Africa contains 54 countries.	Producers	Those involved in supplying raw materials to sell on to companies who manufacture a product from this. Usually a farmer, e.g. cocoa producer.
Equator	The imaginary line that divides the northern hemisphere from the southern hemisphere. The equator runs through Africa, including Kenya, Uganda, Somalia and the DRC.	Biome	A biome is a specific geographic area notable for the species living there. A biome can be made up of many ecosystems.
Fair Trade	Trade between companies in richer countries and producers in poorer countries in which fair prices are paid to the producers.	Pull Factors	Reasons that attract people to the cities.
Manufacturer	The company who will turn the raw material into the finished product ready to sell on to the consumer, e.g. Cadbury's.	Push Factors	Reasons for people to leave rural areas.
Migration	The movement of people from one place to another.	Safari	An expedition to observe animals in their natural habitat, especially in East Africa.
Population	All the inhabitants of a particular place. In Geography, we normally mean people as the inhabitants.	Tourism	The commercial organisation and operation of holidays and visits to places of interest.

## Skills: Choropleth Maps



**Densely populated areas have a high number of people per km²**  
**Sparsely populated areas have a low number of people per km²**

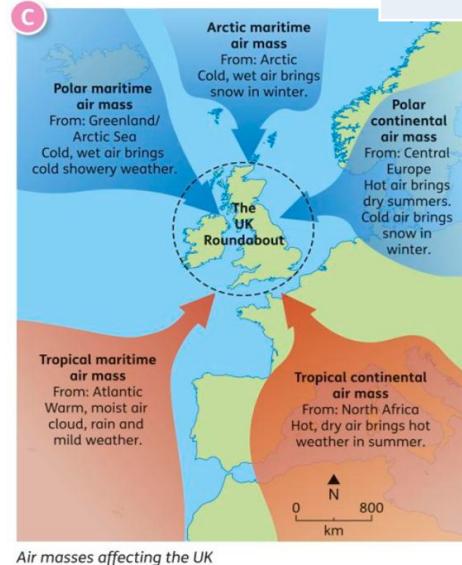
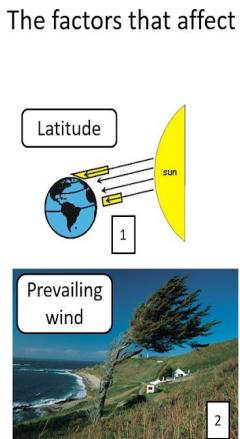
## Welcome to Africa



# Year 7 Geography: Weather & Climate

Key Term	Definition	Key Term	Definition
Weather	The day to day, hour to hour state of the atmosphere.	Tropical Storm	A tropical storm is a very powerful low-pressure weather system which results in strong winds (over 120km/h) and heavy rainfall (up to 250mm in one day). In the US and Caribbean they are known as <b>hurricanes</b> , in South Asia - <b>cyclones</b> and in East Asia - <b>typhoons</b> .
Climate	The average weather conditions over a long period of time.	Primary Effects	Things that happen immediately as a result of a natural hazard.
Global Warming	The rise in the average temperature of the earth's surface.	Secondary Effects	Things that happen in the hours, days and weeks after the initial hazard.
Greenhouse Effect	The retention of the heat in the atmosphere caused by the build-up of greenhouse gases.	Short-term or Immediate Response	A response in the days and weeks immediately after a disaster has happened. Short-term responses mainly involve search and rescue and helping the injured.
Greenhouse Gas	The gases responsible for global warming - carbon dioxide, methane, nitrous oxide and CFCs (chlorofluorocarbons).	Long-term Response	Responses that go on for months and years after the disaster. It involves rebuilding destroyed houses, schools, hospitals etc. It also involves kick-starting the economy.
Precipitation	Rain, snow, sleet, or hail that falls to or condenses on the ground.	Extreme weather	Extreme weather is when a weather event is significantly different from the average or usual weather pattern.

## What affects the UK's weather?



# Year 7 Computing

## Introducing Computers

### Different Types of Computer

Desktop	Embedded Devices	Embedded Devices
Laptop		Embedded devices are machines that aren't normally thought of as computers but have a computer chip in them to help them do their job better.
Tablet		Examples: Smartphone, Smart doorbell, Dishwasher, Digital Microwave, Smart Fridge, Car SatNav
Server/ Supercomputer		
Games Console		

### INPUT DEVICES



### OUTPUT DEVICES



### A Computer is made up of...

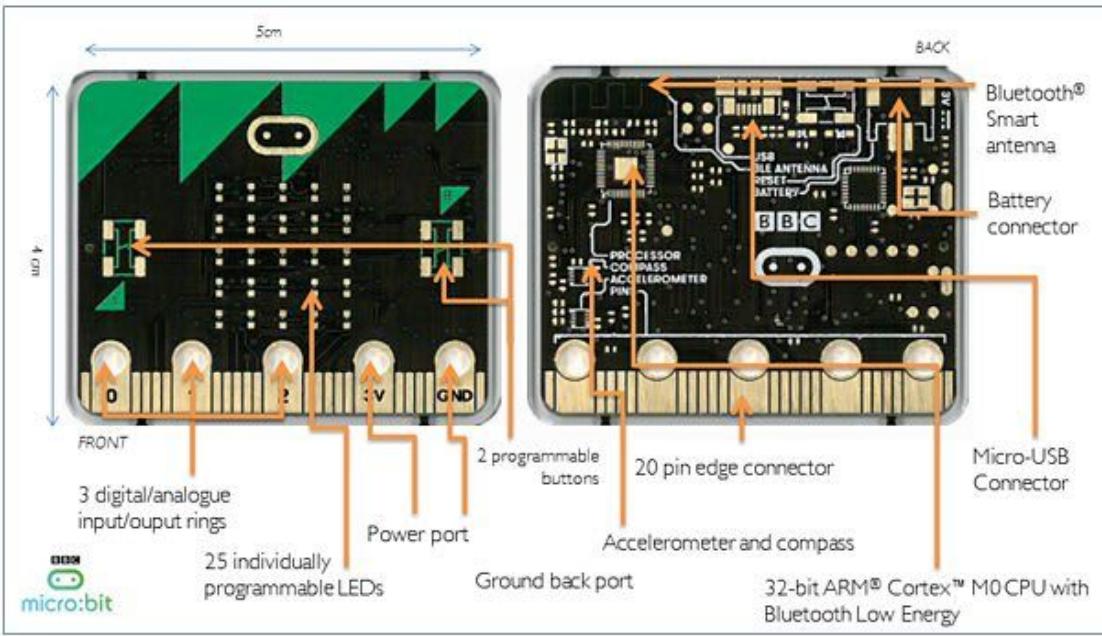
Hardware	Anything to do with the computer that can be touched. E.g. Disks, monitor, keyboards, motherboard.
Software	Code that makes the hardware do something useful.
Input device	A device that allows a person to put data into the computer. E.g. Mouse, keyboard.
Output device	A device that allows a person to get data from a computer. E.g. printer, speakers.
Storage device	A device that lets you save your data, even when the power is turned off on your computer.

### Internal Parts of a Computer (Inside the box)

Motherboard	The main circuit board of a computer that holds all of the other parts together.
Processor/CPU	This carries out all the instructions in the computer.
Random Access Memory (RAM)	Short term storage for the computer. It stores things you haven't saved and apps you have open.
Hard Drive	A storage device that holds data permanently for when the computer is switched off.
Graphics Card	Is in charge of what appears on your screen. Any instructions or code to do with the video or picture on your screen is done by the graphics card.
Power Supply	Provides electricity to all of the internal parts of the computer

# Year 7 Computing

## Python Programming on the BBC Microbit



### BBC Microbit

Sensor	An input device for a computer that can measure part of the outside world. We can use these in programming to trigger part of our code to work when something in the outside world happens.
Accelerometer	A type of sensor that can measure if the device has moved or not and how far it has moved and in what direction.
Thermometer	A type of sensor that can measure the temperature.

### Key Terminology

Python	A text based programming language that is very close to written English.
Algorithm	A set of steps or instructions to complete a task.
Variable	A place to store a single piece of data.
Input	Where data is entered into a computer by a user/human.
Output	Where data is displayed by the computer. Examples include: text, images, sound or video displayed on a monitor or through speakers.
Assignment	When one variable is set equal to another e.g. <code>x = y</code>
Sequence	When code is run in a specific order, usually from top to bottom.
Selection	Also called a decision, when a program takes a course of action based on an answer. <code>if answer == 0:     print("Even") else:     print("Odd")</code>
Loops	When one or more lines of code are repeated. <code>for i in range(11):     print ("The count is: " + str(i))</code>

# Year 7 Art - Visual Art Elements

## Why are the Visual Art Elements the foundation of all artwork?

The Visual Elements of line, shape, tone, colour, pattern, texture and form are the building blocks of **composition** in art. When we analyse any drawing, painting, sculpture or design, we examine these different parts to see how they combine to create the overall effect of the artwork.

Visual Art Elements

Line	Line is the beginning of all drawing. Line in an artwork can be used in many different ways. It can be used to create shape, pattern, form, structure, growth, depth, distance, rhythm, movement and a range of emotions.
Shape	Shape can be shown in a number of ways. Sometimes we can recognise the shapes, at other times, they can look like something we haven't seen before. This could be called ' <b>abstract</b> '.
Tone	Tone is the lightness or darkness of a color. Tone can be changed by using white or black to make a colour lighter or darker.
Colour	Colour is the visual element that has the strongest effect on our emotions. We use color to create the mood or <b>atmosphere</b> . For example, artwork that uses mainly reds and oranges, might make you feel angry.
Pattern	Pattern is made by repeating parts of the work. There are two basic types of pattern in art: Natural Pattern and Man-Made Pattern. The patterns could be made by repeating something in a certain way or completely random.
Texture	Texture is the surface effect used in art - the roughness or smoothness of the materials used to make the art.
Space	Space is an element of art by which positive and negative areas are defined or a sense of depth achieved in a work of art .

## What is the significance of Escher's work?

### 5 facts about the artist

1. Escher (1898-1972) is one of the world's most famous graphic artists. His art is enjoyed by millions of people all over the world.
2. His work features mathematical objects including impossible objects, reflection, symmetry and **perspective**.
3. Early in his career, he drew inspiration from nature, making studies of insects, landscapes, and plants
4. The prints Escher produced from 1941 on are his most well-known. He continued experimenting with repeating patterns and **geometric** mathematical concepts,
5. More recently, Escher's mind-bending visions have provided inspiration for the film *Labyrinth* 1986



## What is Colour Theory?

The colour wheel helps us understand the relationships between colours.

The **primary colours** are red, yellow and blue. They cannot be made by mixing other colours together. All other colours can be mixed from red, yellow and blue.

**Secondary colours** are made by mixing equal amounts of primary colours together:

- Blue and red mixed together make purple
- Yellow and red mixed together make orange
- Blue and yellow mixed together make green

A **tertiary** colour is made by mixing equal amounts of a primary colour and a secondary colour together. There are six tertiary colours.

**Harmonious** colours sit beside each other on the colour wheel. These colours good for mixing together.

**Complementary** colours sit across from each other on the colour wheel. These are often referred to as opposite colours and even **contrasting** colours.

A **tint** is where an artist adds a colour to white to create a lighter version of the colour. An example of a tint is pink. Pink is a tint created by adding white to red.

A **shade** is where an artist adds black to a colour to darken it down.

# Year 7 Art - Pop Art

## Why was Andy Warhol successful?

1. His birth date was never recorded at a hospital. Andy Warhol liked to change his birthday and make up stories about his youth when doing interviews with the press.
2. He once said that "good business is the best art."
3. In 1961 Andy Warhol came up with the **concept** of using mass-produced **commercial** goods in his art. He called it Pop Art. He would use commercial images and reproduce them over and over. One early example of this was a series on Campbell's Soup cans.
4. Andy Warhol also used pictures of famous people. He would repeat the same portrait over and over, but use different colors and effects in each picture. Some of the celebrities he had as subjects include Marilyn Monroe.
5. He was also interested in film and music. He produced around 60 films and supported a band called the Velvet Underground. One of his movies was a 6 hour film of his friend sleeping called *Sleep*.

## How does tone impact art?

The lightness or darkness of something – this could be a shade, or how dark or light a colour appears. When we add white to a colour it's called a tint - this lightens the base colour.

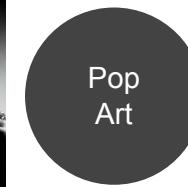
When we add black to a colour it's called a shade - this darkens the base colour

Tone can be used to make something look **three dimensional** by blending tints and shades in specific areas.

Shade



Creating tone in pop art was often created using screen printing. A method where ink is applied directly to the surface to be printed. The image to be printed is transferred to a very fine fabric (the screen). The parts that are non-printing areas are blocked off and the fabric becomes a stencil. The ink is wiped across the screen to pass through the unblocked areas and reach the underneath surface. For each colour to be printed a separate screen is prepared and the **process** is repeated. This is a process to **mass produce** an image.

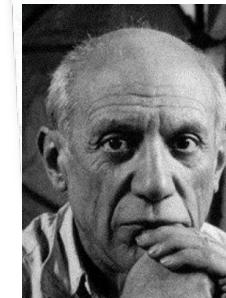
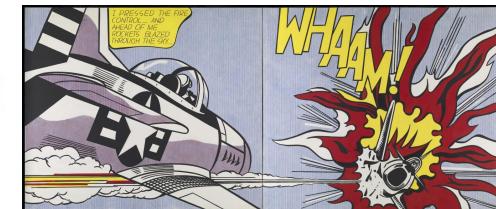


## How did Pop Art influence culture?

Pop art is an art movement that started in the 1950s and was very popular in the 1960s in America and Britain. It was revolutionary for its use of bright and bold colours, particularly after the end of the war.

- Pop art was normally related to everyday objects or people that were popular at the time.
- It made use of **popular** imagery, such as comics, films, advertising and household objects.
- It often used bright colours such as red, blue and yellow, as well as images of celebrities or **fictional** characters from TV or comics.
- Another well known pop artist was Roy Lichtenstein. His paintings and prints looked just like comic strips, including his most well known work entitled *Whaam!*

Pop Art influenced the way people lived their lives. They wanted to take risks, wear bright colours and be extraordinary!



# Year 7 Design - 2D vs 3D

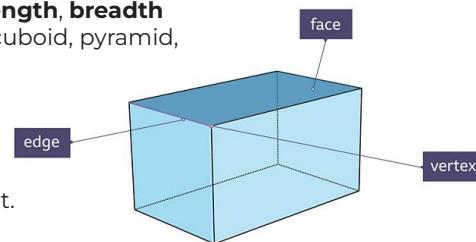
## Do all 3D ideas start from a 2D form?

A shape is **2D** if it is **flat**. 2D means it has **two dimensions: length and breadth** or **length and height**. 2D shapes include circle, triangle, square, rectangle, pentagon, hexagon.

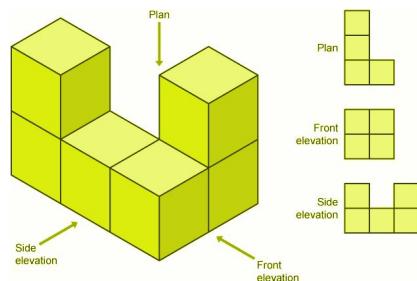
An object is **3D** if it has **three dimensions: length, breadth and height**. 3D objects include sphere, cube, cuboid, pyramid, cone, prism, cylinder.

### 3D shapes have faces, edges and vertices:

- A **face** is a flat surface.
- An **edge** is where two faces meet.
- A **vertex** is a corner where edges meet.
- The plural of vertex is **vertices**.



A cuboid has 6 faces, 12 edges and 8 vertices



When architects design buildings, they often sketch 2D drawings to show what the building will look like from each side. These drawings are called **plans** and **elevations**.

- The view from the **top** is called the **plan**.
- The view from the **front** and **sides** are called the **elevations** (front elevation and side elevation).

Some 3D shapes, like cubes and pyramids, can be opened or unfolded along their edges to create a flat shape.

The unfolded shape is called the **net** of the solid.

## What is 3D Design?

3D designing means planning and creating art projects that have height, width and depth. **Planning** out a design and making a small-scale model, also known as a **maquette**, is useful for visualising the final design. There are some key things to think about when designing in 3D:

- the **size and scale** of the piece
- the **materials** that will be used
- the **cost** of creating the piece
- the **tools** needed
- any **health and safety** requirements
- the materials needed for **final touches** and the finish

## 3D Design

## How do you choose the right materials?

### Metals

Most metals are strong, hard and shiny materials that can be hammered into different shapes without breaking. They are good conductors of heat and electricity and some are magnetic. Their properties make them useful for objects such as cutlery, saucepans, cars and coins.



### Plastics

Plastics are materials made from chemicals and are not found in nature. They are strong and waterproof. They can be made into any shape by applying heat. Plastics are not magnetic. They are good insulators and don't conduct heat or electricity. They're used to make things like bags, bottles and toys.



### Glass

Glass is made by melting sand and other minerals together at very high temperatures. It is normally transparent and can be made into different shapes. Thick glass can be strong, but thin glass breaks easily. It's used for objects that need to be transparent, such as windows and spectacles.



### Wood

Wood comes from trees. It is strong, flexible and long-lasting. It is an insulator of heat and electricity. It's used to make things such as furniture.



### Fabrics

Fabrics are made from thin fibres woven together. Different fabrics have different properties. They can be stretchy (a pair of tights), insulating (a woollen coat) or absorbent (a towel). Fabrics are used to make clothes as they are flexible, warm and do not wear out easily.



### Clay

Clay is a type of fine-grained natural soil material containing clay minerals. A firm but soft and sticky material, it can be moulded when wet as it becomes malleable, and is dried and baked to make bricks, pottery, and ceramics.



# Sculpture Design

## Why was Louise Nevelson's work monumental?

1. Louise Nevelson was an American sculptor known for her **monochromatic**, wooden wall pieces and outdoor sculptures.
2. Nevelson experimented with art using found objects, she often collected materials discarded on New York City streets to make her textured sculptures.
3. Usually created out of wood, her **sculptures** appear puzzle-like, with multiple cut pieces placed into wall sculptures or independently standing pieces, often 3-D.
4. One unique feature of her work is that her figures are often painted in monochromatic black or white.
5. Her work is seen in major collections in museums.. Nevelson remains one of the most important figures in 20th-century American sculpture.



"New York is my mirror"



## Inspiration or imitation, what's the difference?

Inspiration is the process of being mentally **stimulated** to do or feel something, especially to do something creative.

**Inspiration** gives us the energy to create new designs and to work hard to ensure they fit with our image or vision. It is when we are inspired that we produce our best work.

**Inspiration** assists us with brainstorming, mapping out new ideas and with bringing these new ideas to life.

In design, inspiration can be sourced from many places. Some examples are:

- A theme or topic eg. nature
- An era or time in history
- Looking at the work of others eg. Using a source like Pinterest
- Our surroundings and environment



## How can designers execute their ideas?

Three-dimensional work is made by one of four basic processes: carving, modelling, casting, constructing

### Carving

Carving is a sculptural technique that involves using tools to shape a form by cutting or scraping away from a solid material such as stone, wood, ivory or bone.

### Casting

Casting involves making a mould and then pouring a liquid material, such as molten metal, plastic, rubber or fibreglass into the mould.

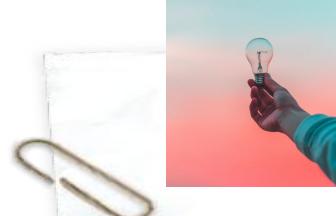
A mould can be cast more than once, allowing artists to create editions of an artwork.

### Modelling

Modelling is an additive process. This means a soft material is worked by the artist to build up a shape or form.

### Constructing and assembling

These are still life subjects made from scrap (found) materials glued together. Artists have used techniques including bending, folding, stitching, welding, bolting, tying, weaving, and balancing to construct sculptures from a wide variety of materials and found objects.



A **relief** is a sculpture in which the three-dimensional elements are raised from a flat base. The term relief is from the Latin verb *relevo*, meaning 'to raise'. To create a sculpture in relief is to give the idea that the sculpted material has been raised above the background.

The opposite of relief sculpture is **counter-relief**, intaglio, or cavo-rilievo, where the form is cut into the field or background rather than rising from it.

Reliefs are common throughout the world on the walls of buildings and a variety of smaller settings, and a sequence of several panels or sections of relief may represent an extended story.

## Drama Keywords

Stimulus	A starting point for a piece of Drama which gives you ideas. It could be a picture, a story, a poem or a song.
Mime	Acting out a moment/action/feeling without WORDS.
Physical Theatre	Use of the body & movement to show a story/feeling/situation/object.
Split-staging	Two scenes performed at the same time on stage, but the technique of this needs to be used to help the audience know where to focus.
Transitions	A change from one scene to another. Smooth Transitions in Drama are key!
Gesture	Body or facial movements of a character during a play.
Body Language	To show your emotion towards others with your body.
Facial Expression	Using your face to show the emotions of the character.
Pace	The speed the dialogue is delivered to the audience, or the speed of the movement.
Wash	Covers the whole stage in light, allowing the audience to see everything.
Spotlight	A 'Spot'/Circle of Light in a small area - to focus on less actors. You could use a torch to do this.

Drama techniques, skills and lighting

## Year 7 Drama - Spring Term 1 Darkwood Manor

### Key Knowledge

- Step inside Darkwood Manor where you will discover a long history of strange events, spooky stories and things that go bump in the night!
- You will learn how to create mood and atmosphere on stage - not only through your acting skills, but also with a bit of help from lighting, sound and props.
- You will create group pieces which aim to uncover the truth about Darkwood Manor, to find out what really happened there!



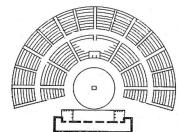
## Year 7 Drama - Spring Term 2 History of Theatre

### Key Knowledge

- Theatre started in Ancient Greece and we are still influenced by many of these original practices today
- Tragedy* and *Comedy* were the two **genres** used - this is where the symbol of the masks for drama originates
- Masks** were worn by the actors to show character
- Chorus work** is used by a group of actors to **narrate** the play instead of **Dialogue** used by the characters
- Some Greek theatres still exist and we can learn from them what going to the theatre in Ancient Greek times was like



**Amphitheatre** - A type of stage from Ancient Greece where the seating is tiered in a semi circular arena around the stage. The space around it is open and it is outside.



# Philosophy

## British World Views -

from prehistory to modern day

**Paganism** - prehistory: religions based upon reverence, respect and worship for nature.

**Roman Influence** - 43CE to around 400CE; the Romans first brought their gods such as Jupiter and Mars and later introduced Christianity.

**Christianity** - disappeared with the Romans. From the late 6th Century, missionaries were sent from Rome and Ireland to re-introduce Christianity

**Viking Influence** - from the late 8th century, Vikings raided and then settled. They brought gods such as Thor.

**The Reformation** - Christianity prevailed and the Roman Catholic Church was the dominant worldview in Britain until Martin Luther and Henry VIII.

**The Enlightenment** - 1685-1815: a time of reasoning and science which led to changing beliefs and worldviews.

**Changing Population** - Britain's population has continued to grow and change, and so have our worldviews.

## Ways of reading Religious Sources of Authority

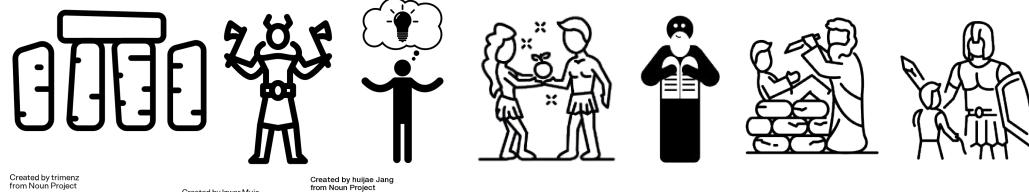


**Non-literalist**  
- believing something has a symbolic meaning

**Literalist** - believing something to be true, word for word



**Historical source** -  
We can learn about ancient societies and gain insights about historical events - some of which have shaped today's world. Archeology plays an important role in verifying certain facts.



**The Big Story** - Old Testament of the Bible. It is made up of 39 books, compiled from c500 BCE; language - Hebrew, oldest man - Methuselah 969 years.

We study some of the key characters and events which have had a lasting impact on our world (including the Middle East) and our country.

**The Fall** - believed by many to be the reason there is evil in the world

**Abraham** - seen as a key founder of Judaism, Islam and Christianity. He was given the promise of a land to live in. This promise has shaped the world we live in.

**Moses** - introduced the Ten Commandments that were embedded in English law.

**David** - a shepherd boy, who fought Goliath and became king.

## Key Terms- including for Sikhi (Sikhism)



**Covenant** - a contract or special agreement

**Laws** - rules made by an authority and that must be obeyed.

**Truth** - that which is genuine

**Interpretation** - how something is understood

**Socrates** - Socrates was the first philosopher to argue that everything should be questioned.

**Gurdwara** - Sikh place of worship; doorway to the Guru

**Guru** - spiritual teacher

**Guru Granth Sahib** - Sikh holy book

**Mool Mantar** - the beginning of the Guru Granth Sahib, it starts with; there is one supreme being

**Waheguru** - 'Wonderful Lord'. 'Wahe' means wonderous, 'gu' means darkness and 'ru' means light. God

**Khanda** - the symbol of Sikhi

**Reht Maryada** - keep God in mind, earn an honest living, give to charity and care for others

# Year 7 Music: The Elements of Music



## Types of Texture

Type	Definition	Diagram
Monophonic	a single, unaccompanied melodic line	
Homophonic	melody with accompaniment	
Polyphonic	more than one melody performed at the same time	
Heterophonic	two melodic lines that follow each other, but with more ornamentation in the main melody	

Type	Definition	Diagram
Monothematic	a piece of music based on a single melodic idea	
Binary	a piece of music with two main sections: A B or A A B B	
Ternary	a piece of music with three sections, the third is a return to the first: A B A	
Rondo	a piece of music with a return to the first section with a different section in between: A B A C A	

There are 8 elements of music. Silence is also an element.

## Musical Elements

<b>Timbre</b>	Sound quality	
<b>Pitch</b>	High or low sounds	
<b>Texture</b>	How many sounds?	
<b>Tempo</b>	Fast or slow?	
<b>Duration</b>	Long or short?	
<b>Structure</b>	The musical plan	
<b>Dynamics</b>	Loud or quiet?	

TEMPO	
<b>Largo</b> very slow (40-60)	<b>Moderato</b> medium (106-120)
<b>Adagio</b> slow (66-76)	<b>Allegro</b> quickly and bright (112-124)
<b>Andante</b> at a walking pace (76-106)	<b>Presto</b> very fast (166-200)

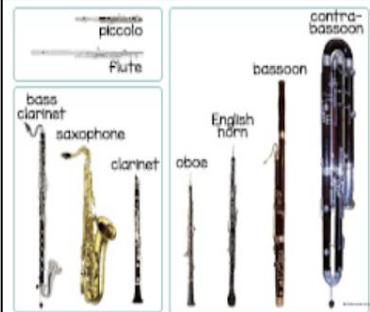
## STRING FAMILY



## BRASS FAMILY



## WOODWIND FAMILY



## PERCUSSION FAMILY



<	crescendo getting louder
<b>ff</b>	fortissimo very loud
<b>f</b>	forte loud
<b>mf</b>	mezzo forte medium loud
<b>mp</b>	mezzo piano medium quiet
<b>p</b>	piano quiet
<b>pp</b>	pianissimo very quiet
>	diminuendo getting quieter

## Note Values - Duration



1 semibreve  
(whole note)



2 minims  
(half notes)



4 crotchets  
(quarter notes)



8 quavers  
(eighth notes)



16 semiquavers  
(16th notes)

# Literacy

“IF YOU ARE GOING TO GET ANYWHERE IN LIFE, YOU HAVE TO READ A LOT OF BOOKS.”

Roald Dahl

## Questions to become an active reader...

Which sentences could help you to sum up the entire passage?

What do you think is going to happen next?

What did you think about as you read?

What else do you know about the topic?

What questions do you have about the book?

Which words do you not know or understand?

What clues from the passage help you to remember what has already happened?

How could you describe what you have just read to someone else?



## Key Vocabulary for our book discussions

Deduce	What you can understand based on the evidence in the text.
Skim	To read over the text quickly to get the main idea of what is going on.
Critic	A person who makes or gives a judgment of the value, worth, or quality of a book or text.
Recommend	To suggest that a book would be good or suitable for a particular person.

## Key Vocabulary for Talking Points

Human Nature	The characteristics of humans
Greed	Intense and selfish desire for something, especially wealth, power, or food.
Curiosity	A strong desire to know or learn something.
Envy	Wishing you could have the same thing or quality that someone else has.
Idle	Avoiding work; lazy.
Prideful	having an excessively high opinion of oneself.

## ABC Sentence Starters

**ADD:** To add a new idea to what someone else has been saying:

I would like to add to this...

I would have to agree with you because...

We might also consider...

Adding on to the previous comment...

**BUILD:** To build on what someone else has been saying:

This could be developed by considering...

This links to...because...

Building onto this...

Taking this one step forward...

**CHALLENGE:** To challenge someone's ideas and offer the opposite viewpoint:

I would challenge this idea because...

From another perspective you might argue that...

Although I can see why ___ thinks... I disagree because...

On the other hand this idea could be challenged because...

# YEAR 7 PE - TABLE TENNIS KNOWLEDGE ORGANISER

## Key Words

Push shot	Backhand
Forehand	Serve
Let	Follow through
Umpire	Angle



## TABLE TENNIS SKILLS

### Serving

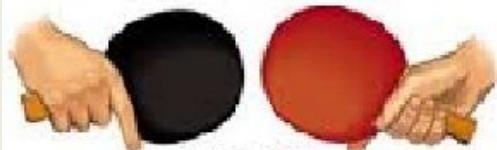
- Hit the ball without it bouncing into your side of the table.
- Angle your bat diagonally down when striking the ball so the ball doesn't bounce really high over the net.
- Roughly aim for the middle of your side of the table

### Push shot

- Stand side on with your knees bent.
- Keep your eyes on the ball and your head still.
- Angle your bat slightly off flat the net so it's facing towards the ceiling.
- Push the ball over the net, trying to keep as close to the net as possible

### Grip and Stance

- Stand with bent knees and the bat in a neutral position, up and in front of you (not in a forehand or backhand position).



### Return of Serve

- Be on your toes with your knees bent and your bat in a neutral position so you can play on either the backhand or forehand.
- Have a small backswing as the ball approaches you.
- Push the ball in the direction you want the ball to go, keeping it as low to the net as possible.

## TABLE TENNIS RULES

### Serve

Stand behind the table

Hold the ball in a flat palm so your opponent can see it.

Throw the ball a minimum of 6 inches in the air.

Hit the ball behind the white line, at the back of your table

Hit the ball on your side the table and then your opponents.

You only get one attempt.

If it hits the net and lands over the net, it is a 'let' and you'll need to retake the serve

### Open Play

The ball can only bounce once on your side of the table.

You must hit the ball once so it lands on your opponent's side of the table.

If you touch the net, it is your opponent's point.

If it hits the net and lands in, it is seen as a lucky shot.

### Scoring

The winner is the player who reaches 11 first but if gets to 10:10, you have to win by two clear points.

Each player takes two serves each.

You can score points on both your serve and your opponents serve.

A point is awarded if:

- The ball bounces twice on your side of the table
- Volley the ball
- Don't return the ball to your opponent's side of the table

# Year 7 PE - Gymnastics

## KEY TERMS

**Sequence:** A sequence is a series of movements which flow together. When composing a sequence it must have a clear start and end. Think of this at the Capital letter to start a sentence and a full stop to end it.

Any gymnastics routine should aim to be aesthetically pleasing and display the following;

- Extension
- Body tension
- Control
- Clarity of shape
- Resilience
- Flow

## PERFORMANCE

### Apparatus

Pommel horse, rings, high bar, parallel bars, vault, balance beam, asymmetric bars.

### Floor routine

Create a sequence combining and linking key shapes and skills.

### Rhythmic routine

Ball, Clubs, Rope, Ribbon, Hoop

WHAT COMPONENTS OF FITNESS ARE NEEDED FOR GYMNASTICS?



## RULES AND REGULATIONS

A gymnast must create her own routines at an appropriate skill level for his/ her degree of difficulty.

No jewellery, body piercing or adornments of any kind are permitted

A judge panel usually scores gymnastics competitions.

**Gymnasts** have two different **scores**, the **D score** (difficulty of the routine) and the **E score** (execution of the routine aka how neat and tidy it is!).

All **gymnasts** begin with a 10.0 execution **score** which then has points removed for faults such as bent legs, arms and falls.

## SKILLS IN ISOLATION

### Key Shapes

- Tuck
- Straddle
- Pike
- Dish
- Arch
- Puck
- Star
- Straight

### Key Skills

- Forward roll
- Backwards roll
- Cartwheel
- Summersault
- Headstand
- Handstand
- Round off
- Walk over

# YEAR 7 PE - HANDBALL KNOWLEDGE ORGANISER

## What is handball?

Handball is a team sport played with two opposing teams. Each team has 7 players in total, with 6 outfield players and one goalkeeper. The players are allowed to handle and throw the ball using their hands, but they must not touch the ball with their feet.

The objective of the game is to score and avoid getting goals. The team that scores more goals in a given period of time wins the match. The game is played at a very high speed and body contact is permitted. As a result, Fair Play has a central importance.

## HANDBALL SKILLS

### Passing

- Start the ball in one hand at shoulder height
- Pull your throwing shoulder back, maining a bent elbow.
- Step forward with the opposing foot to your shoulder and extend your arm in the direction you want

### Dribbling

- Dribble with one hand at a time
- Use the finger tips to help control the bounce
- Bounce the ball waist height and away from the defender.
- Keep your head up as much as you can.

### Shooting

- Use the same technique as passing
- Aim for the corners of the goal
- You can jump off the opposing leg to your throwing arm to get above/around the defenders.
- If jumping into the GK's area, you must release ball before landing.

### Defending

- Use the same technique as passing
- Aim for the corners of the goal
- You can jump off the opposing leg to your throwing arm to get above/around the defenders.
- If jumping into the GK's area, you must release ball before landing.

## HANDBALL RULES

### Attacking – DO's

Throw and catch the ball using hands & arms.

Pass the ball to a teammate.

Take a maximum of 3 steps with the ball.

Bounce the ball with one hand and catch it again.

Play outside the goal area.



### Defence – Do's

Use your hands to block the ball.

Use open palms to take the ball away from the opponent.

Make body contact with an opponent (ONLY IN A FACE TO FACE POSITIONS).

Fair play

Stay outside the goal area



### Attacking – DON'T'S

Block or kick the ball using your feet.

Hold the ball for more than 3 seconds.

Take more than 3 steps with the ball.

Double dribble – bounce the ball, catch it and bounce again.

Enter the goal area with the ball.

Charge an opponent or run into a defensive player.



### Defence – DON'T'S

Pull or hit the ball out of the hands of an opponent.

Hold, push, run, jump into an opponent.

Endanger the opponent.

Interfere in with a free throw.



# Year 7 OAA

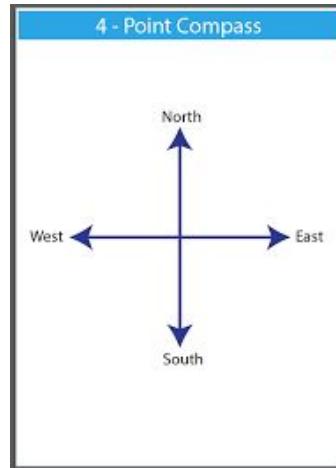
## Outdoor and Adventurous Activity

Orienteering is an outdoor navigation sport where participants use a map and compass to navigate from point to point in diverse and often unfamiliar terrain.



### Key Aspects of Orienteering:

- Map & Compass:** A detailed topographic map and a compass are essential tools.
- Control Points:** Participants must locate specific checkpoints in order.
- Route Choice:** There is no set path, so competitors must decide the best way to move between points.
- Time-Based:** The fastest person or team to visit all the required checkpoints wins.



## What skills are needed?

### Navigation Skills

- Map Reading** – Understanding topographic maps, symbols, and scale.
- Compass Use** – Knowing how to take and follow a bearing.
- Route Planning** – Choosing the most efficient path between control points.
- Spatial Awareness** – Recognizing terrain features and relating them to the map.

### Physical Fitness

- Endurance** – Running, hiking, or biking over long distances and rough terrain.
- Agility & Balance** – Moving efficiently through forests, hills, or obstacles.
- Speed & Strength** – Helpful in competitive events, especially sprint orienteering.

### Decision-Making & Problem-Solving

- Quick Thinking** – Adjusting routes on the go if obstacles or mistakes happen.
- Risk Management** – Deciding between a longer, easier route or a shorter, tougher one.

### Situational Awareness

- Recognizing Landmarks** – Identifying key features like rivers, hills, or trails.
- Pacing & Distance Estimation** – Knowing how far you've traveled without relying on GPS.

