Knowledge Organisers
Summer Term – Year 8

Name: _____

Please remember:

- It is to be kept inside your knowledge organiser book
- It is to be brought into school every day

Regular retrieval throughout a scheme of learning (daily, weekly and monthly) has been proven to **reduce the rate of forgetting**, supporting you to **retain more** in long term memory- making assessments/ exams way easier! The challenge for you as a student is to make sure you use your knowledge organiser for each subject properly to help you to know more and remember more over time. We've created this walk through to support you in using your knowledge organiser- for more support speak to your subject teachers.

Using your Knowledge Organiser

1	2	3	4	5
Look	**Cover**	**Write**	**Check**	**Repeat**
Start with a **small section of knowledge** that you want to remember *e.g Henry VIII's wives in History.* Read through this section of the knowledge organiser (a couple of times if it helps)	Now **cover up this section** of your knowledge organiser with a post it note or scrap paper.	**Self quiz- what can you remember** and rewrite? Make sure you do this without looking back at your knowledge organiser.	**Remove the post it and check for accuracy**- did you get the key terminology? Was it spelt correctly? Was the order correct? If you drew a diagram, how much of this did you get correct? Most importantly- what did you miss out?	After a short break away from your knowledge organiser repeat the look, cover, write, check **until you can recall all of the facts correctly without prompts.** This process can be used for any new knowledge that you want to acquire. It is good idea to do this on a regular basis, once a week.

Strategy 1- Look, cover, write, check – A really simple but effective way to use your knowledge organiser. Focus on a specific area of your knowledge organiser.

1	2	3	4	5
Focus	**Big ideas**	**Explain it**	**Link it**	**Record it**
Make it manageable by selecting an area of your KO where your learning is not secure. Don't waste time going off something you can already do!	Pick out the main points or the **big ideas** in this section.	**Explain what you know** about the main points (this could be written or shared verbally – a friend, a family member.	Now, see **how it links to other areas** within the subject. *E.g Eating meat – causes global warming. Cows produce methane which is a greenhouse gas.*	**Write down as many 'think it, link it' ideas** as you can in your book. See if you can beat others in you class!

Strategy 2- Think it, link it – Great for connecting the big ideas in your subject. How does 'x' relate to 'y'. What are the key factors which make an equation/ experiment/ process work? Challenge yourself to see how many links you can make!

1	2	3	4	5
Select topic	**Prepare quiz**	**Answer it**	**Self check**	**Repeat**
Decide **which area you want to be quizzed** on (this might build up over time)	Get someone else to **prepare 10 random questions** on that topic to challenge you.	**Set a time limit** (depending on the number of questions) and answer the questions without looking at your KO.	Now look at your KO to **self check**- make a note of your score. Celebrate your successes and make a note of anything you missed or got incorrect.	**Return to this section** in 2/3 weeks- see if you can improve your score! Re-do those questions that you missed or got incorrect.

Strategy 3- Knowledge quiz – You might try this after a few weeks of using your knowledge organiser. Get someone to set you 10 questions using your knowledge orgainser. These could be spellings, key words, processes, equations etc to see how much you can remember! Record your score and see if you can beat your personal best each half term!22

Contents Page

Year 8 – English – Mastery Writing 1

Mastery Writing One Rules

Capital letter rules:

- For certain letters, **the capital letter is a bigger version of the lower case letter.**
- You must be very careful to clearly write the correct size for these letters.
- Use a capital letter **if a word is the name for a specific person or place.**
- Otherwise, do not use a capital letter.
- When I is used by itself in a sentence, it should always be a capital letter.

Tense rules:

- **When you tell what happened, you put "ed"** on the end of the action.
- Some verbs (l) can't be changed from what happens to what happened by adding 'e' or 'ed'. You have to learn how these words change.
- In the past, change the verb "to be" to "was". If the subject is singular (o), change it to "were" if the subject is plural (o) or you.

When Ashraf went around the corner, he bumped into his teacher. Mr Smith dropped his papers on the floor and was not happy. "Watch where you're going, Ashraf," he said.

Sentence rules:

- A complete sentence must contain a subject (n)and a verb. If it does not, it is a mistake called an incomplete sentence.
- Start a new sentence when the next subject (n) appears. If you do not, it is a mistake called a fused sentence (g).
- You can correct an incomplete sentence by adding either a subject or a verb to make it a complete sentence.
- Do not start a sentence with 'and'. If you see a sentence starting with 'and', delete it and tidy the sentence.
- Join two sentences that have the same subject (n) by replacing the full stop and second subject with 'and'.

Verb and subject rules:

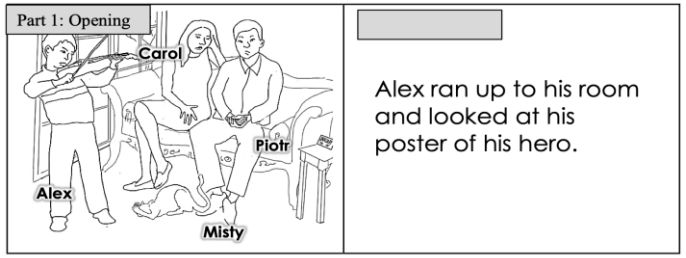
- Words like **was and were are verbs** even if they don't look like verbs (l). They are the verb "to be".

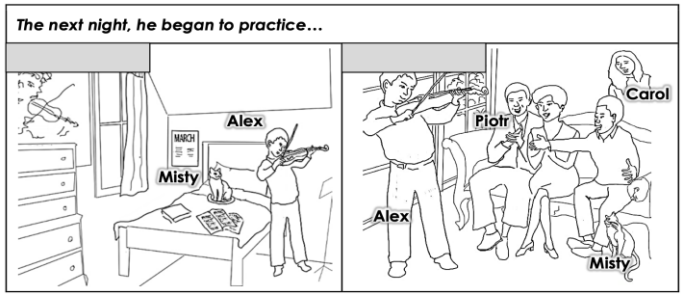
A singular subject (n) should use 'was' as in 'I was going to the shops.' A **plural (o) subject involves more than one person or thing** and should have 'were' as in 'We were going to the shops.'

Y8 – English – Mastery Writing 1 – Story Writing Model Example.

You will receive a set of pictures like these. You will need to **practice your writing working on the rules** you've been doing in **that lesson, and the lessons before**.

You must include all the Mastery Checks.





I have introduced my **main subject** (n).I have told the audience where they are.

I have structured my story in paragraphs. I have **indented** (h) my **paragraphs**.

I have written in **complete sentences (d).**

I have used **simple sentences (j)** throughout my work.

Aa

Alex was playing the violin for his parents, Carol and Piotr and his cat, Misty in their living room. Alex was trying really hard, but his audience thought he sounded terrible.

Devastated, Alex ran up to his room and looked at his poster of his hero. The next night, he began to practice in his bedroom. He practiced to Misty, who seemed to enjoy his violin playing now.

The next day, Alex plucked up the courage to play for his family again. Carol, Piotr, Misty and their friends were delighted at how good the piece of music sounded.

Alex was happy too.

I have written in the **past tense.**

I have a **complication** (m) in my story.

I have used **verbs** (l) to show how my character is feeling.

I have **solved the problem**.

I have used **complex sentences** (d) throughout my work.

	Key terms	Definition
A	**Adjective**	A word which describes a noun: **Example:** sweet, short, bitter, stinky
B	**Adverb**	Describes a verb or adjective. An adverb answers how, where, when how much, how often. **E.g.: quickly, easy and never.**
C	**Complete Sentences**	A sentence which contains a subject and a verb. **Example:** She went to the shop
D	**Complex Sentences**	A sentence containing a subordinate clause
E	**Conjunctions**	A conjunction is a part of speech that connects words, phrases, or clauses. **Example:** for, and, but.
F	**Dialogue**	Speech between teo or more people.
G	**Fused Sentences**	A sentence which has not used punctuation between the next subject. **Example:** She went to the shop she bought some milk.
H	**Indent**	Starting the first line of a paragraph further away from the margin than other paragraphs.
I	**Personal Pronoun**	A first person word which replaces a name, like "we, I" etc.
J	**Simple Sentences**	A sentence with one clause, one subject and one verb. **Example:** Jack likes fishing.
K	**Subordinate Clause**	A clause which does not make sense on its own. (e.g. 'when it rang' in 'she answered the phone when it rang').
L	**Verb**	A word which describes an action **Example:** read, write, drive, walk.
M	**Complication**	Something which causes a difficulty for a character.
N	**Subject**	The person or thing doing the verb in the sentence.
O	**Singular/plural**	Singular means one and plural means more than one.

Year 8 – English – Mastery Writing 2

Mastery Writing Two Rules

¶ Paragraph rules:

- New paragraphs start **two finger spaces** from the margin. All other lines start at the margin.
- This is called **indenting (h)** a paragraph.

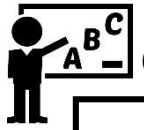
Tense rules:

- When you tell what **happened**, you put "ed" on the end of the action.
- When you put actions in the past simple, you say what happened, not what was happening.
- When you start with when it happened, you put a **comma** right after when it happened.
- You don't use a comma if when it happened is at the end.

¶ *As Benedict left his home, he was filled with joy. His mother had let him finally wear his new football boots. That afternoon, he returned home and his boots were ripped.*

Sentence and subject rules:

- If the next sentence uses the same **subject** (n)**(thing or person that the sentence is talking about)**, you should use a **pronoun (i)** to replace it.
- You can only use the **pronoun** (i) to replace a subject you have used in the sentence before.
- When you list two things a subject did in one sentence, **you only name the subject (n) once**.
- If there are two **objects** in a sentence, you **can't use it** in the next sentence.



Grammar and punctuation rules:

- If a person said more than one sentence, put everything they said inside the **'inverted commas'** (f).
- If the part that starts with 'although', 'unless' or 'if' is at the start of the sentence, it is followed by a comma

  e.g. Although Cerys did not receive the puppy she wanted for her birthday, she was grateful for all the other gifts she received.

Y8 – English – Mastery Writing 2 – Story Writing Model Example.

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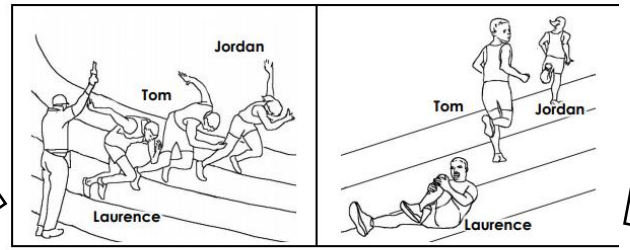

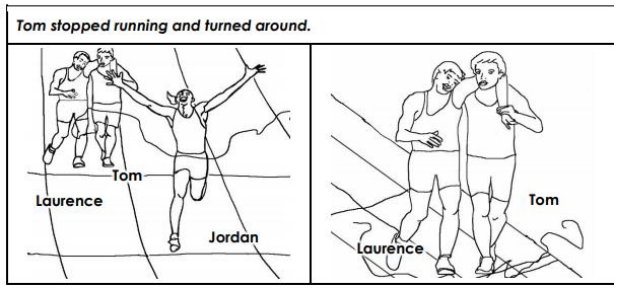

I have **inferred** p) from the four boxes what the most likely set of events are and will write them into a story.

I have introduced my **main subject** (n).I have told the audience where they are.

I have written in the **past tense.**

I have structured my story in paragraphs. I have **indented** (h) my **paragraphs**.

I have a **complication**(m) in my story.

Tom, Jordan and Laurence had started to race each other. Tom and Jordan had begun to take the lead. Laurence tripped over his laces and fell onto the ground.

¶ Devastated, Laurence held his knee in agony. Just when he thought he was all alone, Tom turned around to help him up.

Although Jordan technically won the race, Laurence and Tom finished together and they won each other's friendship.

I have used **verbs**(l) to show how my character is feeling.

I have written in **complete sentences (c).**

I have **solved the problem**.

I have used **complex sentences** (d) throughout my work.

	Key terms	Definition
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F	**Inverted commas**	The punctuation which indicates when speech has happened. " and ".
G	**Fused Sentences**	A sentence which has not used punctuation between the next subject. **Example:** She went to the shop she bought some milk.
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M	**Complication**	Something which causes a difficulty for a character.
N	**Subject**	The person or thing doing the verb in the sentence.
O	**Singular/plural**	Singular means one and plural means more than one.
P	**Infer**	When you work out information from the evidence you have.

Year 8 – English – Animal Farm – Plot and Key Quotations

Old Major's speech :

A. Mr Jones falls asleep, drunk.
B. Old Major delivers a speech arguing the case for a rebellion.

The Rebellion:

A. Old Major dies and the pigs create Animalism.
B. The rebellion happens when Mr Jones forgets to feed the animals.
C. Milk disappears.

Pigs as Leaders:

A. Snowball sets up meetings but Napoleon and Snowball argue.
B. Snowball brings literacy to the animals.
C. Squealer gives milk and apples to the pigs.

Battle of the Cowshed:

A. A group of men try to seize the farm.
B. Led by Snowball, the animals repel the attack.

Snowball's Expulsion :

A. Mollie leaves the farm.
B. The pigs gain power and make the animals vote.
C. Snowball and Napoleon continue to disagree.
D. Snowball is expelled from Animal Farm.

Building the Windmill:

A. Napoleon trades with humans.
B. The pigs begin sleeping in beds.
C. Muriel and Clover notice a change in the commandments
D. A storm topples the windmill, Napoleon blames Snowball.

Rebuilding the Windmill and the Execution:

A. The animals begin to go hungry.
B. The hens are told to give up their eggs. They refuse.
C. Napoleon stops feeding them and nine hens starve.
D. Several 'traitors' are executed,
E. 'Beasts of England' is outlawed.

Destruction of the Windmill:

A. Another change in the commandments. Frederick tricks Napoleon. Frederick and others attack the farm. Several animals die, Boxer is injured.
B. Napoleon says that drinking alcohol is punish able by death.

Boxer's Fate:

A. Animal Farm is a republic.
B. Boxer is injured and Napoleon sends for a vet.
C. A van arrives but Benjamin reads the side and learns that Boxer is being slaughtered.
D. Squealer tells them otherwise.

Pigs and Humans Come Together:

A. The pigs walk on two legs.
B. The commandments are replaced.
C. The pigs carry whips and wear Mr Jones' clothes.
D. Animals cannot tell the difference between pigs and humans.

Chapter 1 and 2 → Chapter 3 and 4 → Chapter 5 and 6 → Chapter 7 and 8 → Chapter 9 and 10

"THE SEVEN COMMANDMENTS:
1. Whatever goes upon two legs is an enemy.
2. Whatever goes upon four legs, or has wings, is a friend.
3. No animal shall wear clothes.
4. No animal shall sleep in a bed.
5. No animal shall drink alcohol.
6. No animal shall kill any other animal.
7. All animals are equal."

"All men are enemies. All animals are comrades."

"I will work harder!"

"Four legs good, two legs bad."

"I have no wish to take life, not even human life,' repeated Boxer, and his eyes were full of tears."

"Napoleon is always right."

"All that year the animals worked like slaves. But they were happy in their work."

"The human beings did not hate Animal Farm any less now that it was prospering; indeed, they hated it more than ever."

"They were always cold, and usually hungry as well."

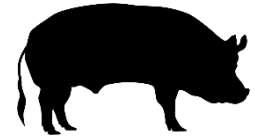
"No one dared speak his mind, when fierce, growling dogs roamed everywhere, and when you had to watch your comrades torn to pieces."

"Some of the animals remembered -- or thought they remembered."

"'No animal shall kill any other animal.' And though no one cared to mention it in the hearing of the pigs or the dogs, it was felt that the killings which had taken place did not square with this."

"They had been slaves and now they were free, and that made all the difference, as Squealer did not fail to point out."

"All animals are equal but some are more equal than others."



"The creatures outside looked from pig to man, and from man to pig, and from pig to man again; but already it was impossible to say which was which."

Year 8 – English – Animal Farm – Context and Characters

Leadership — Napoleon's treatment of the animals is similar to how the Soviet Union treated its citizens in 'The Great Purge' during the 20th Century. — **Corruption (k)**

Power and Control — Originally, the move to Communism (i) under Trotsky was a big improvement on the Russian royal family but it was soon over when, in 1923, Stalin took over and flipped the Communist (i) attitudes for his own benefit. — **Manipulation**

Lies and False Truths — Soviet Union and the use of fear and propaganda to control others. Ideals of communism (i) created by Marx. Used within Animalism by Old Major. — **Dreams and Hopes**

Naivety — The treatment of the working classes and the uneducated. was bad as the leaders chose who to educate and who not to educate. This leads to naivety (g) and being cheated. — **Education**

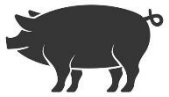
Leaders

Historical Figures

Old Major
The wise old pig who inspires the rebellion.

Mr Jones
Drunken owner of the farm. Represents the harshness of man.

Squealer
Mouthpiece for Napoleon. Symbolises the use of propaganda to control the animals.



Napoleon
Corrupt (m) pig who becomes a dictator. Executes animals and expels Snowball.

Snowball
The opposite of Napoleon. Devoted to helping and educating animals.

Lenin
Lenin followed and promoted communism (i), a society where everyone shares their wealth.

Leon Trotsky
Wanted revolution and Communism but disagreed with Stalin. Eventually assassinated by Stalin.

Joseph Stalin
Ruled the Soviet Union. Had a secret police force and killed those who disagreed with the Communist Party.

Citizens

Dogs and Sheep
Used as tools by Napoleon to scare and intimidate other animals.

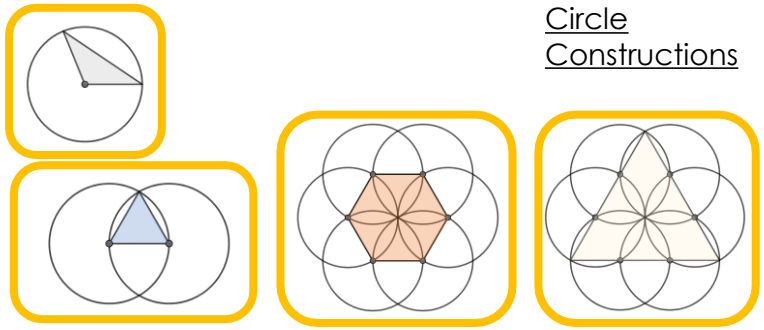
Clover
Caring and loyal horse. Sees the corruption but is not educated enough to understand.

Boxer
Hard working horse. Strong but innocent.

Keyword		Definition
A	Rebellion	An act of armed resistance to an established government or leader.
B	Seize	To take hold of suddenly and forcibly.
C	Repel	To drive or force (an attack or attacker) back or away.
D	Expulsion	The action of forcing someone to leave an organization.
E	Execution	The carrying out of a plan, order, or course of action/the carrying out of a sentence of death on a condemned person.
F	Republic	A society in which power is held by the people and their chosen people to represent them.
G	Naivety	Lack of experience, wisdom, or judgement.
H	Trades	The action of buying or selling goods.
i		A type of society where everyone shares their money and earns the same.
J	Propaganda Communism	The spread of misleading or false information for a specific cause (often political).
K	Corrupt	Acting dishonestly for personal gain.
L	Allegory	A story which can be interpreted to have a hidden meaning.
M	Corrupt	Acting dishonestly in order to benefit yourself.
N	Purge	To get rid of people or things.

Year 7 Maths – Mastery: Unit 9 – Constructing triangles and quadrilaterals

Circle Constructions

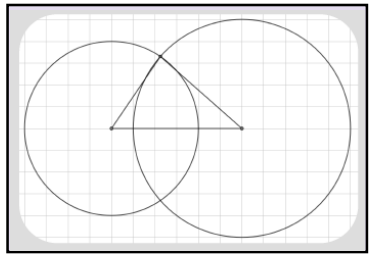


By drawing circles, you can **construct** various **polygons**.

Constructing Triangles – given 3 side lengths

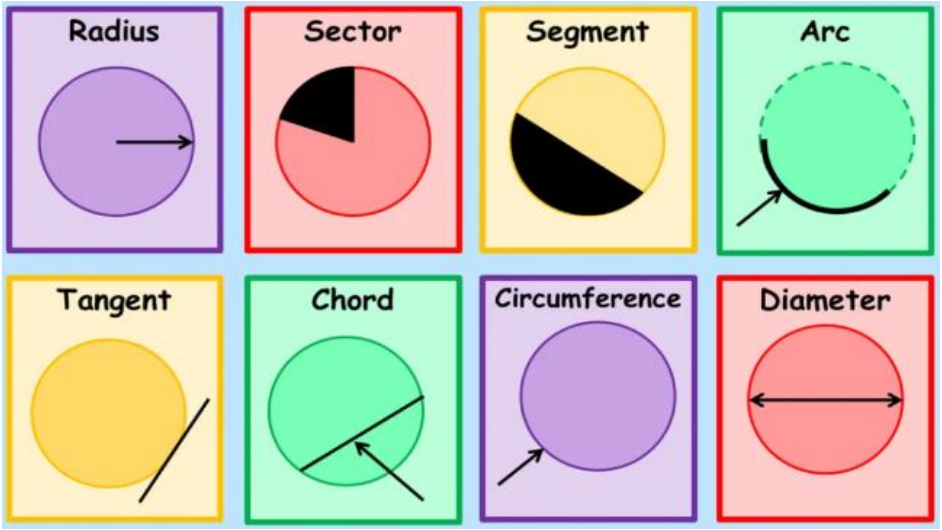
Using **ruler** and **compasses**, you can **construct** any triangle, given its three side lengths.

This triangle has side lengths 6cm, 5cm and 4 cm.
The 6cm line was drawn with a ruler. Then circles with radii 5cm and 4cm were constructed at either end of the 6cm line.
The intersection points show where the other vertex should be.



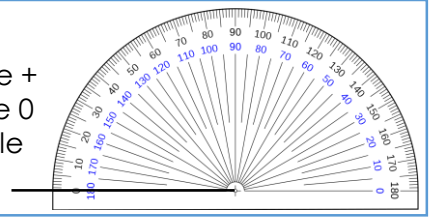
Circle Properties

You need to know these parts of a circle:



Using a protractor

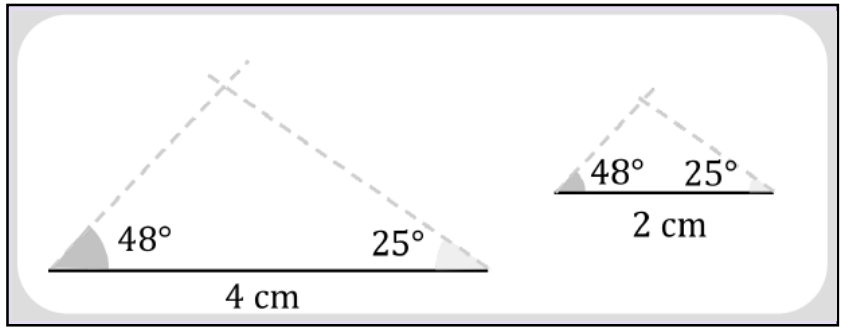
Always position your protractor with the + over the end of the line and line up the 0 on the scale. Count from 0 on the scale when measuring an angle.



Constructing Triangles – given 2 angles

Using **ruler** and **protractor**, you can **construct** any triangle, given two of its angles.

These triangles both have interior angles of 48° and 25° but the side lengths are different.
Draw the side in between the two angles first; sometimes this is given to you in the question. Then measure the angles from each end of the line – make sure the protractor is lined up correctly!
Extend your construction lines until they intersect (but don't rub them out – the examiner will want to see them).
The intersection points show where the other vertex should be.



Other Topics/Units this could appear in:

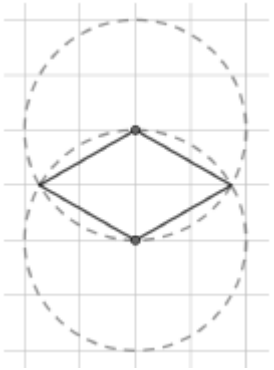
Year 9/10:
- Unit 8 – Mensuration
- Unit 43 – Constructions
- Unit 35 – Bearings
- Unit 37 – Interior and exterior angles

Keyword/Skill	Definition/Tips
Polygon	2-D shape with straight sides and no curved sides.
Regular polygon	All the sides are exactly the same length, all the interior angles are exactly the same size.
Construct	Use ruler, pencil, protractor and compasses to accurately draw a given shape.
Similar	Shapes that are have the same angles, but the side lengths on one have been enlarged by a scale factor.
Congruent	Shapes that are exactly the same, but may be rotated (turned around) or reflected (flipped over).
Adjacent	Next to one another.
Intersect (intersection)	Where two line segments cross or meet at a point.
Symmetry	Line symmetry is where something can be folded in half and both halves are congruent. Rotational symmetry is where something can be rotated around its centre and still look the same.

Year 7 – Maths – Mastery: Unit 9 – Constructing triangles and quadrilaterals

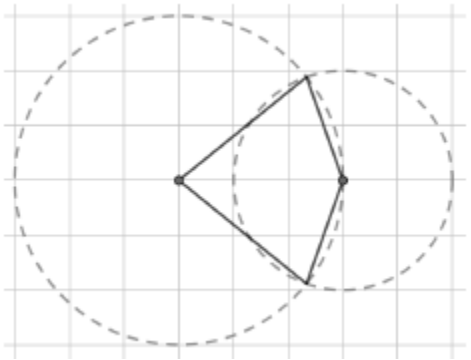
Constructing Quadrilaterals

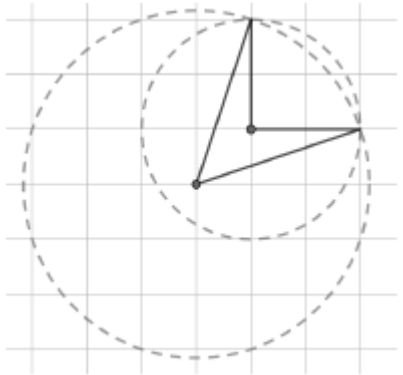
Using **ruler**, **compasses** and **protractor**, you can **construct** any quadrilateral, using the skills you learnt when constructing triangles.



Two intersecting circles with the same radius will form a **rhombus** when you join the radii to the intersection points on the circumferences.

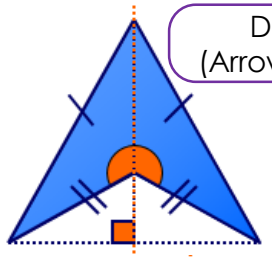
Two intersecting circles with different radii will form a **kite** when you join the radii to the intersection points on the circumferences.



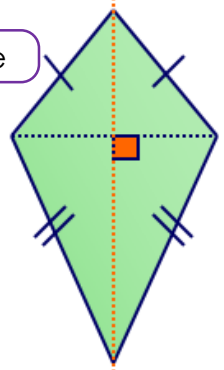


Two overlapping circles with different radii will form a **delta** when you join the radii to the intersection points on the circumferences.

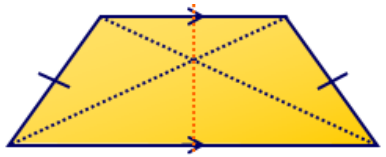
Quadrilaterals – Names and Properties



Delta (Arrowhead)

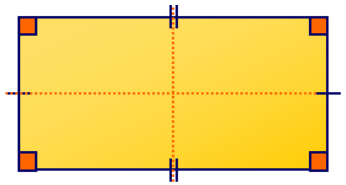


Kite



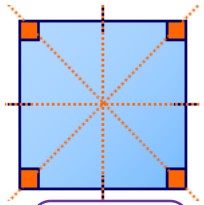
Isosceles Trapezium

Trapezium

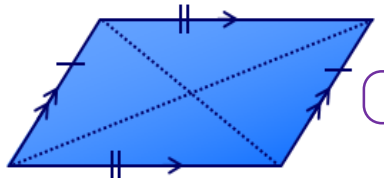


Rectangle

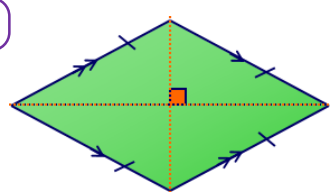
You need to recognise these **quadrilaterals**, and know their **properties**.



Square



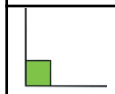
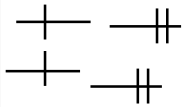
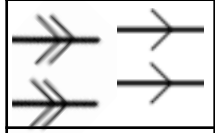
Parallelogram

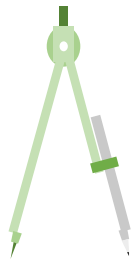


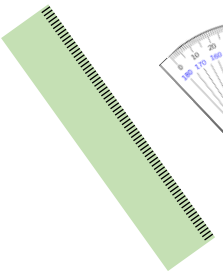
Rhombus

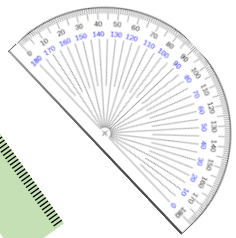
Other Topics/Units this could appear in:

Year 9/10: Unit 8 – Mensuration
Unit 43 – Constructions
Unit 35 – Bearings
Unit 37 – Interior and exterior angles

Keyword/Skill	Definition/Tips
	Squares show right-angles, which are always 90°.
	Short lines crossing sides show pairs or groups of sides that are the same length.
	Arrows are used to show pairs of parallel sides on a shape.
	Orange dotted lines show lines of symmetry. Blue dotted lines show diagonals (joining opposite corners).
Trapezoid	This is the American word for trapezium. You may see it in online resources.

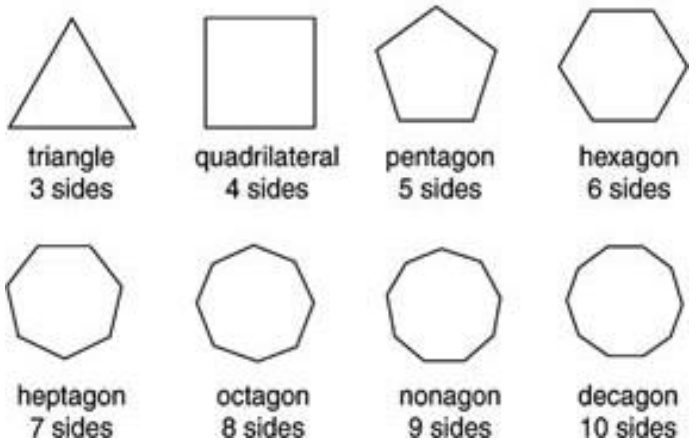




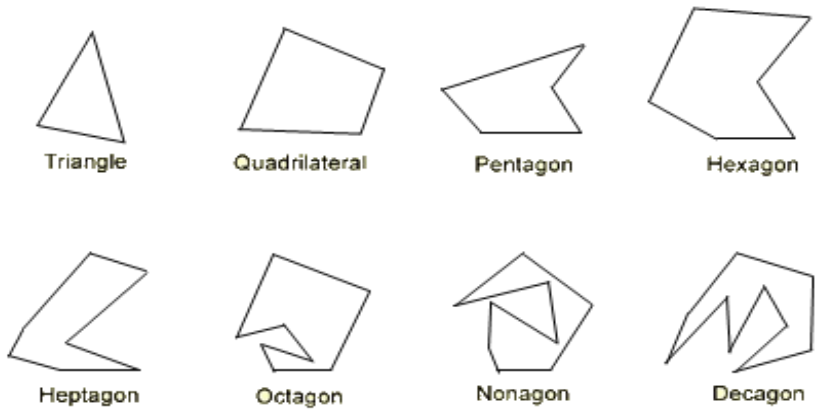


Year 8 – Maths – Mastery Unit 11 – Angles in Polygons

Regular Polygons

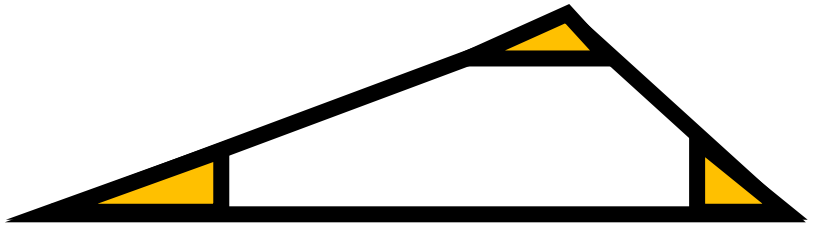


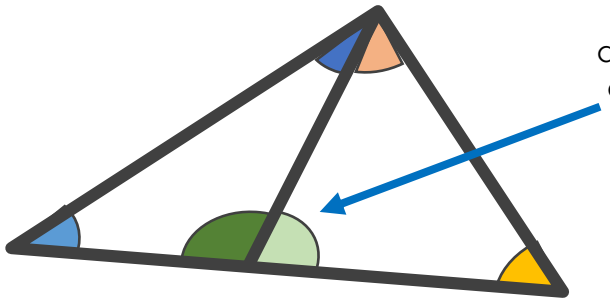
Irregular Polygons



Interior & Exterior Angles

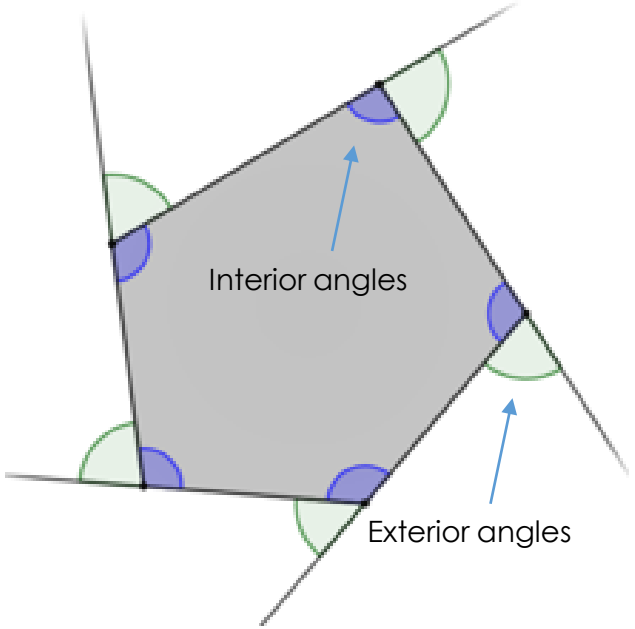
The **interior angles** of a triangle sum to 180°.





In the diagram, the green angles are **not interior angles** of the large triangle as they are not at a **vertex** of the triangle.

Exterior angles and interior angles lie on straight line.
Therefore: **Exterior angle + Interior angle = 180°**



Keyword/Skill	Definition/Tips
Quadrilateral	A shape that has four straight sides
Polygon	A **2D** shape with **only straight edges**.
Regular	A shape is regular if all the **sides** and all the **angles** are **equal**.
Irregular	A shape is irregular when the sides and angles are not all the same size
Interior Angles	An angle inside a shape, joined by two sides
Exterior Angles	The angle between any side of a shape, and a line extended from the next side.
Acute Angles	Angles less than 90°
Right Angles	Angles that are exactly 90°.
Obtuse Angles	Angles greater than 90° but less than 180°.
Reflex Angles	Angles greater than 180° but less than 360°.
Sum	Adding numbers together
Vertex	A point where two or more line segments meet. A corner.

Other Topics/Units this could appear in:

- Mensuration
- Properties of 2D Shapes
- Area & Perimeter, 3D Forms & Angle Facts
- Interior & Exterior Angles

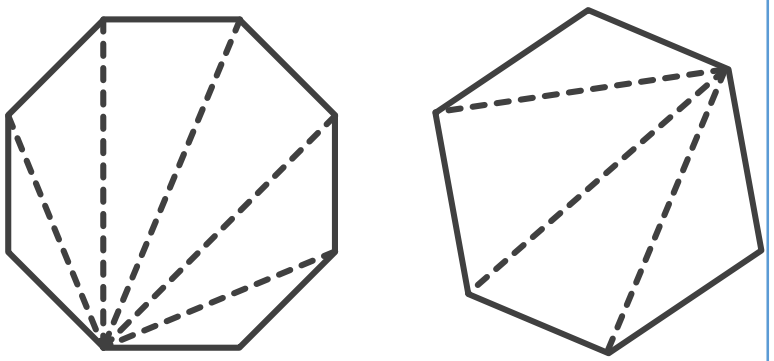
Year 8 – Maths – Mastery Unit 11 – Angles in Polygons

Sum of Interior Angles

If we separate a polygon into triangles like these examples, the number of triangles is 2 fewer than the number of sides.
So the sum of the interior angles is:

$$(n-2)\times 180$$

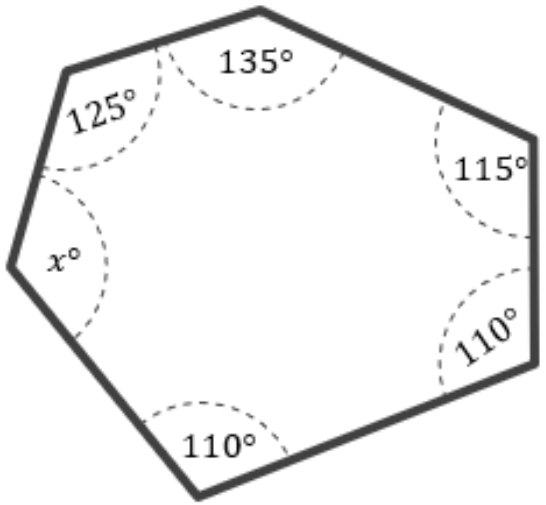
(Where n = the number of sides)



Example:
To find the sum of interior angles in a heptagon.
There are 7 sides on a heptagon.
(7 – 2) x 180 = 5 x 180 = **900°**

Sum of Interior Angles

We can figure out specific angles by using the sum of interior angles.



Sum of interior angles = (6 – 2) x 180 = 4 x 180 = 720°

125	135	115	110	110	x
720					

Therefore, x **= 125°**

Keyword/Skill	Definition/Tips
Quadrilateral	A shape that has four straight sides
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Reflex Angles	Angles greater than 180° but less than 360°.
Sum	Adding numbers together
Vertex	A point where two or more line segments meet. A corner.

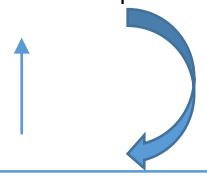
Other Topics/Units this could appear in:

- Mensuration
- Properties of 2D Shapes
- Area & Perimeter, 3D Forms & Angle Facts
- Interior & Exterior Angles

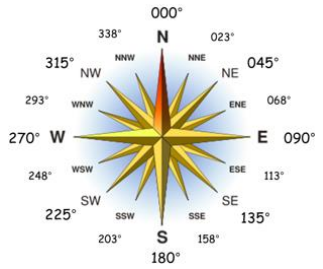
Year 8 – Maths – Mastery Unit 12 - Bearings

Bearings are used to specify direction and are used to navigate ships and aeroplanes.
The key point to remember are:

1. Bearings are measured starting from North.
2. Bearings are always measured in a clockwise direction.
3. Bearings are always written in 3 figures (45° becomes 045°).

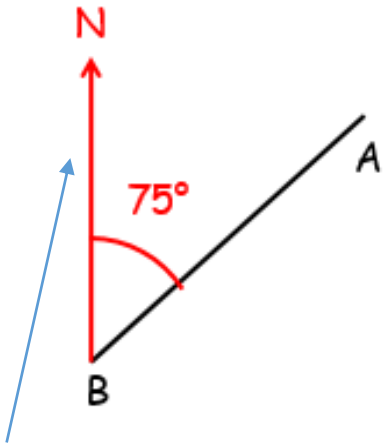


Compass Points



Measuring Bearings

Find the bearing of A from B.



Mark the North line at B. (You can draw this in if there isn't one).

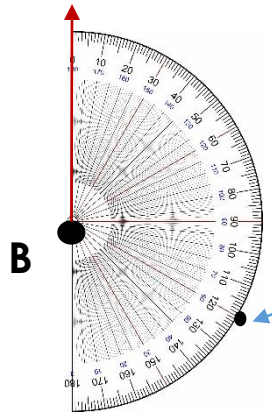
Measure the angle, clockwise from the North line to A.

Give the answer as a three figure bearing.

075°

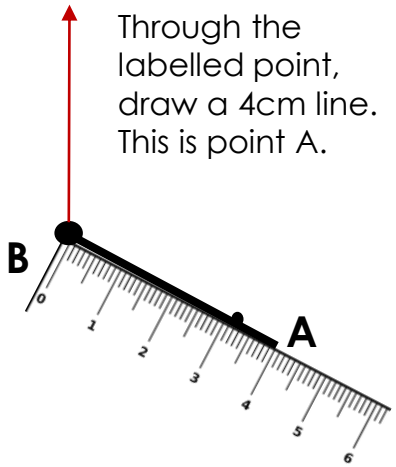
Drawing Bearings

B is a bearing of 120° from A and a distance of 4cm.



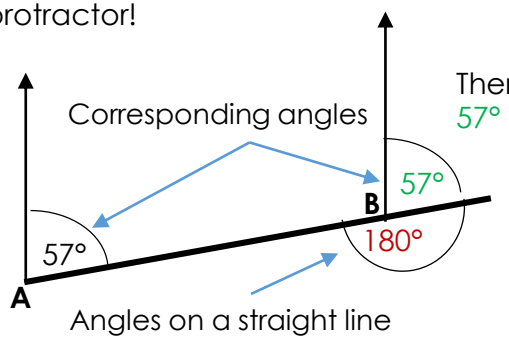
From point B, measure an angle of 120°. Label it so you don't forget where it is.

Through the labelled point, draw a 4cm line. This is point A.



Calculating Bearings

Find the bearing of A from B.
You need to remember some angle facts to calculate these without a protractor!



Therefore, the bearing of A from B is:
57° + 180° = 237°

Look at **Y7 Mastery Unit 7 – Angles** if you need help with angle facts.

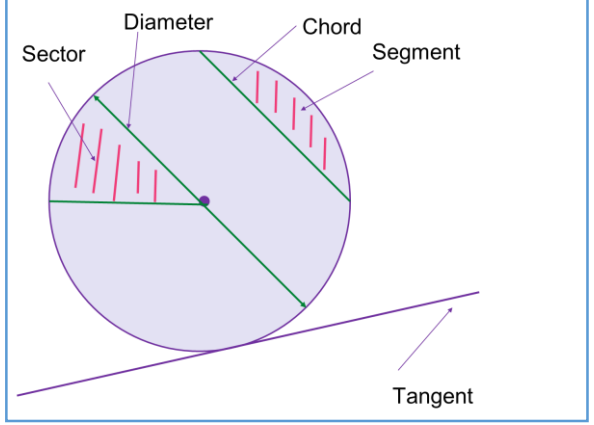
Keyword/Skill	Definition/Tips
Bearing	The angle measured in degrees clockwise from North.
Degree	A measure for angles. There are 360 in a full turn.
Perpendicular	A line that is at a right angle, 90°, from another line.
North line	A line facing North that all bearings are measured from.
Clockwise 	Moving in the direction of the hands of a clock.
Angle 	The amount of turn between two lines about their common point.
Bisect 	To divide something into two equal parts.
Protractor	An instrument used to draw or measure angles.

Other Topics/Units this could appear in:

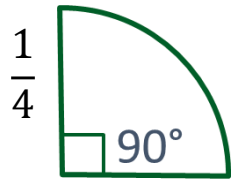
- Properties of Shapes
- Angle Facts
- Mensuration
- Bearings

Year 8 – Maths - Mastery Unit 13 - Circles

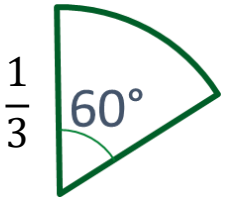
Labelling a Circle



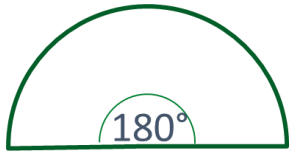
Parts of a circle



Quarter of a circle



A third of a circle



A semi circle (half a circle)

Diameter and Radius of a Circle

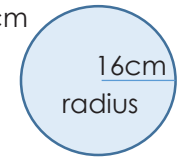
The diameter is double the size of the radius.

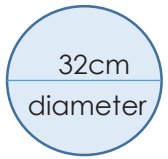
Example:

A circle has a radius of 16 cm. What is the diameter?

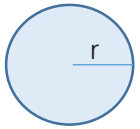
That means you need to double the radius: 16cm x 2 = 32cm

Diameter = 32cm





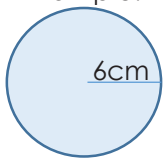
Area of a Circle



Here is the formula for area of a circle:

Area = $\pi r^2 = \pi \times radius^2$

Example: Find the area of the circle.



Radius = 6cm

Area = $\pi r^2 = \pi \times 6^2$

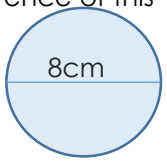
$= 36\pi cm^2 = 113.1cm^2$

Circumference of a Circle

The circumference of a circle is the distance around the circle. It is another name for the perimeter of a circle.

Circumference = π x diameter

Example: Find the circumference of this circle

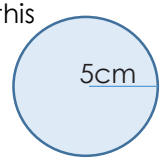


Diameter = 8cm

Circumference = 8 x π

= 25.13cm (2d.p.)

You may be given the radius instead of the diameter, so you need to know the relationship between them (this information is stated above).



Example:

Here the radius is 5cm.

Therefore the diameter = 5cm x 2 = 10cm

Circumference = 10cm x π

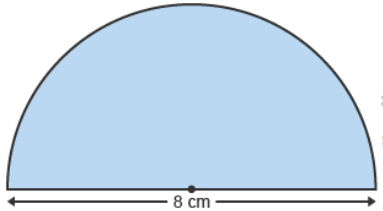
= 31.41cm (2d.p.)

Semicircles

The perimeter of a Semicircle:

Remember that the **perimeter** is the distance round the outside.

A semicircle has two edges. One is half of a circumference and the other is a diameter.



$C = \pi d$

$= 3.14 \times 8$

$= 25.12cm$

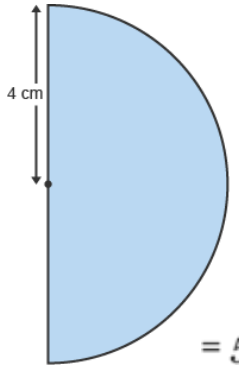
Remember this is the circumference of the whole circle, so now we need to half this answer.

$25.12 \div 2 = 12.56cm$

Total Perimeter $= 12.56 + 8 = 20.56cm$

The Area of a Semicircle:

A semicircle is just half of a circle. To find the **area** of a semicircle we calculate the area of the whole circle and then half the answer.



$A = \pi r^2$

$= 3.14 \times 4 \times 4$

$= 50.24cm^2$

$= 50.24 \div 2 = 25.12cm^2$

Keyword/Skill	Definition/Tips
Area	The size of a surface. The space inside a 2D surface.
Perimeter	The distance around a two-dimensional shape.
Formula	A rule or fact written with mathematic symbols.
Semi-Circle	It is half of a circle
Accuracy	How close a measured value is to the actual (true) value.
Surface Area	The total area of the surface of a three-dimensional object.
Segment	The smallest part of a circle made when it is cut by a line.
Arc	Part of the circumference of a circle or any curve.
Sector	A "pie-slice" part of a circle.
Circumference	The distance around the edge of a circle (or any curvy shape).It is a type of perimeter.
Radius	The distance from the centre to the circumference of a circle. It is half of the circle's diameter.
Diameter	The distance from one point on a circle through the centre to another point on the circle.
Pi	The ratio of a circle's circumference to its diameter. The symbol is π π = 3.14159265358979323846... (the digits go on forever without repeating)

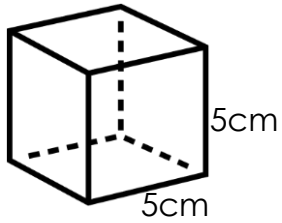
Other Topics/Units this could appear in:

- Properties of shape and simple angle facts
- Perimeter and Area
- Mensuration
- Similarity in 2D & 3D
- Circle Geometry – Gradients & Tangents
- Circle Theorems
- Coordinate Geometry and Circles

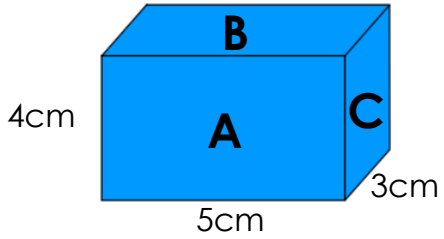
Year 8 – Maths - Mastery: Unit 14 – Surface Area & Volume

Surface Area – Total area of the outside of a 3D shape.

Cubes and cuboids



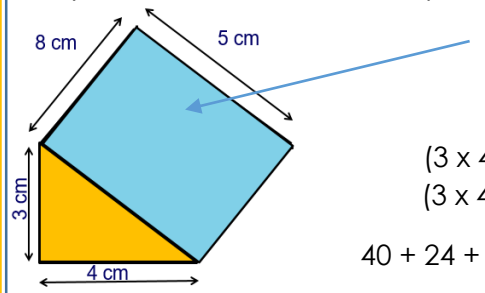
Each face has the same area.
Area of one face:
5 x 5 = 25cm^2
Total surface area:
25 x 6 = 150cm^2



A cuboid will have 3 pairs of equal faces:
2 x A = 2 x (5 x 4) = 40cm^2
2 x B = 2 x (5 x 3) = 30cm^2
2 x C = 2 x (3 x 4) = 24cm^2
Surface Area = 40 + 30 + 24 = 94cm^2

Triangular Prisms & Cylinders

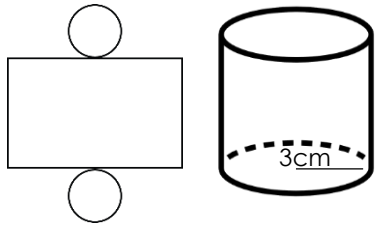
Make sure you find the area of each face on a prism. They may not be all the same shape!



5 x 8 = 40cm^2
3 x 8 = 24cm^2
4 x 8 = 32cm^2
(3 x 4) ÷ 2 = 6cm^2
(3 x 4) ÷ 2 = 6cm^2

40 + 24 + 32 + 6 + 6 = 108cm^2

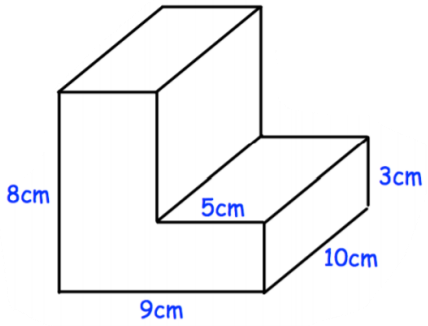
A cylinder's surface is made from two circles and a rectangle, you can see this from the net of a cylinder. The dimensions of the rectangle are the height of the cylinder and the circumference of one of the circles.



Area of the two circles:
2 x (π x 3^2) = 56.6cm^2 (1d.p.)

Area of the curved surface:
Circumference x Height
(2 x π x 3) x 10 = 188.5cm (1d.p.)
Total: 56.6 + 188.5 = 245.1cm^2

Compound Shape Prisms

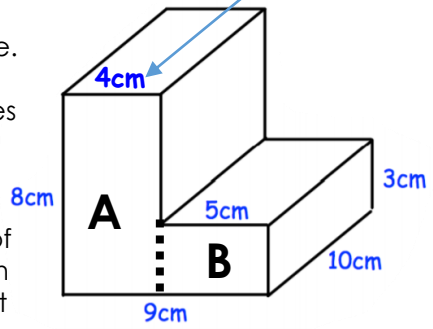


The area of the bottom and the top of the shape will be the same.

The area of the left and right sides of the shape will also be the same.

You then need to split the face of the shape up into shape you can find the area of, in this example it will be two rectangles.

9cm – 5cm = 4cm



Area of the top and bottom:
2 x (9 x 10) = 180cm^2
Area of the left and right:
2 x (8 x 10) = 160cm^2
Area of rectangle A (front & back):
2 x (8 x 4) = 64cm^2
Area of rectangle B (front & back):
2 x (5 x 3) = 30cm^2

Total Surface Area:
180cm^2 + 160cm^2 + 64cm^2 + 30cm^2
= 434cm^2

Keyword/Skill	Definition/Tips
Prism 	A 3D shape that has two identical ends and flat sides.
Cross Section	A view into the inside of something by cutting through it.
Diameter	The distance from one point of a circle to another passing through the centre. It is twice the radius.
Radius	The distance from the centre of the circle to the circumference. It is half the diameter.
Formula/ Formulae	A rule or fact written with mathematical symbols. (V = l x w x h).
Compound Shape 	A compound shape is made up of two or more basic shapes.
Face	A flat surface of any object.
Perimeter	The distance around the outside of a shape.
Area	The space inside a 2D shape.
Surface Area	The total area of the outside of a 3D shape.
Volume	The amount of 3-dimensional space something takes up.

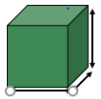
Other topics/units this may appear in:

- Perimeter and Area
- 3D forms
- Mensuration

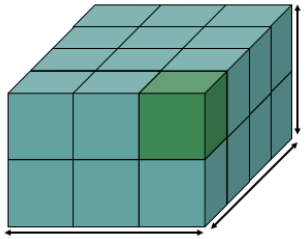
Year 8 – Maths – Mastery: Unit 14 – Surface Area & Volume

Volume Using Unit Cubes

This is a unit cube. It has a volume of 1cm^3. You may get shapes made from unit cubes and you will need to find the volume of that shape by counting how many cubes there are.

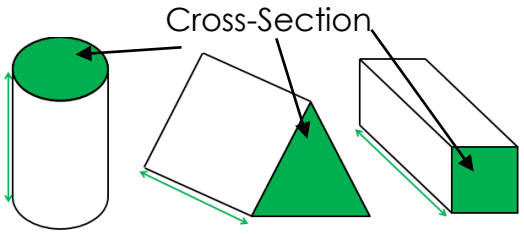


Example:



The volume of this cuboid would be 24cm^3 as there are 24 unit cubes altogether.

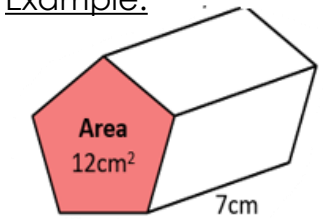
Volume of Prisms



A prism has a constant cross-section. To find the volume of it you first need to find the area of the cross section and multiply it by the height/depth of the shape.

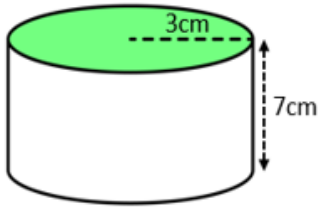
Formula for Volume of Prims: **Area of Cross-Section x Height**

Example:



You are given the area of the cross-section so you need to multiply the area by the depth:

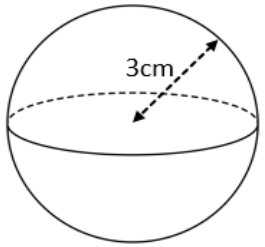
12cm^2 x 7 = 84cm^3



Area of cross-section = $\pi \times r^2$
= π x 3^2 = 28.27cm^2

Volume = Area of Cross-Section x Height
= 28.27 x 7 = 197.89cm^3

Volume of Spheres



Formula for volume of a Sphere: $\frac{4}{3} \times \pi \times r^3$

You are given this formula in the exam, you just need to be able to use it!

Example:

Volume = $\frac{4}{3} \times \pi \times 3^3$ = 113.1cm^3 (1d.p.)

Exam!

Make sure you use the correct units with your answer.
Area uses square units and volume uses cubic units.
Examples:
Area units: cm^2, m^2, mm^2, km^2, etc.
Volume: cm^3, m^3, mm^3, km^3, etc.

Keyword/Skill	Definition/Tips
Prism 	A 3D shape that has two identical ends and flat sides.
Cross Section	A view into the inside of something by cutting through it.
Diameter	The distance from one point of a circle to another passing through the centre. It is twice the radius.
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Face	A flat surface of any object.
Perimeter	The distance around the outside of a shape.
Area	The space inside a 2D shape.
Surface Area	The total area of the outside of a 3D shape.
Volume	The amount of 3-dimensional space something takes up.

Other topics/units this may appear in:

- Perimeter and Area
- 3D forms
- Mensuration

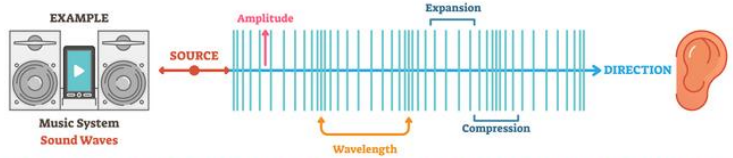
Year 8 – Science – P2a. Sound

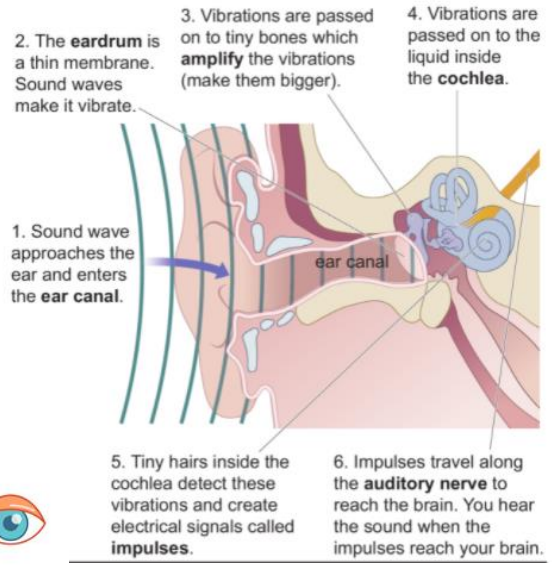
Speed of sound

Sound travels at different speeds in different materials. The vibrations are passed on more easily when the particles in a material are closer together, so sounds travel faster in solids than in liquids. Sound also travels faster in liquids than in gases.

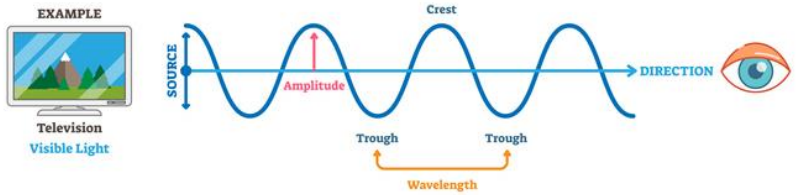
Material	Speed of sound (m/s)
air (20 °C)	343
water (10 °C)	1450
wood	3600
glass	3950
steel	6100

LONGITUDINAL WAVES

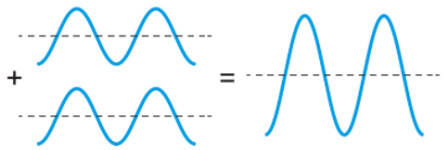




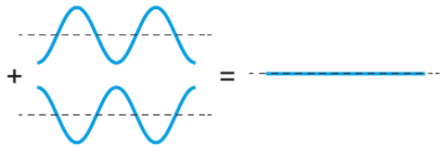
TRANSVERSE WAVES



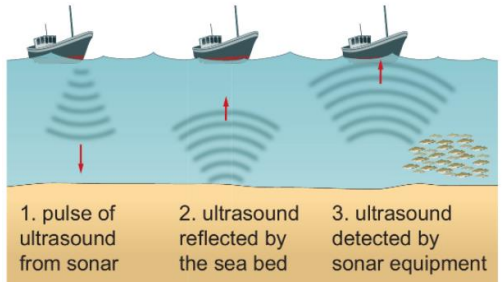
When two crests or two troughs meet they add together to make a bigger wave.



When a crest meets a trough they cancel each other out.



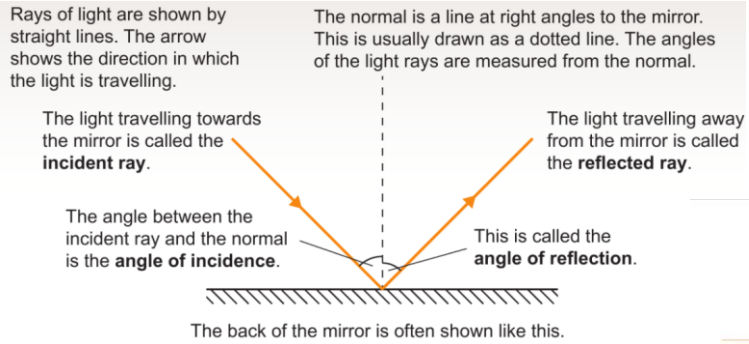
Ultrasound:

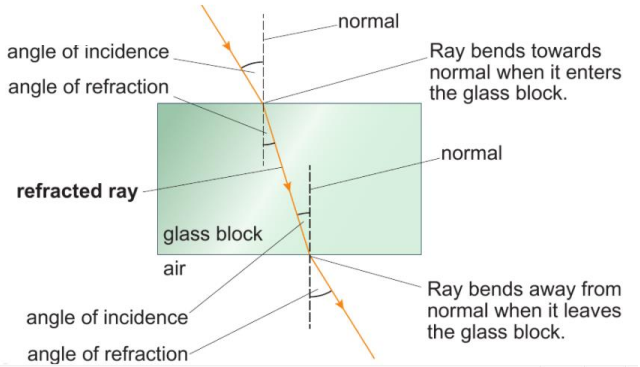


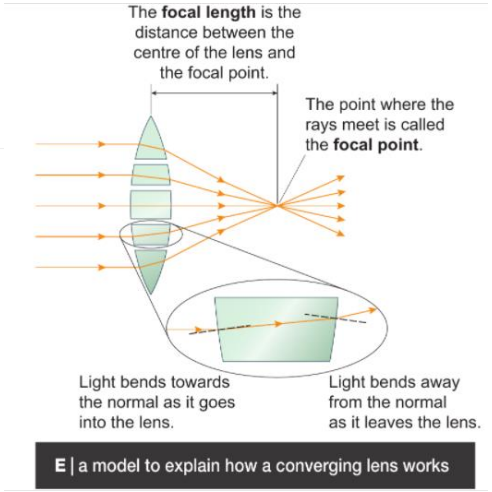
Key word	Meaning
amplitude	The size of vibrations, or the distance a particle vibrates when a wave passes.
frequency	The number of vibrations (or the number of waves) per second.
hertz (Hz)	The unit for frequency.
intensity	The loudness or volume of a sound.
pitch	How high or low a note sounds.
pressure wave	Waves like sound waves, where the vibration of particles transfers energy.
sound wave	A wave is a way of transferring energy. A sound wave is vibrations in the particles of a solid, liquid or gas, which are detected by our ears and 'heard' as sounds.
vacuum	A completely empty space, containing no particles.
medium	Any substance through which something travels.
auditory nerve	The nerve that carries impulse from an ear to the brain.
auditory range	The range of frequencies that an animal can hear.
cochlea	The part of the ear that changes vibrations into electrical impulses.
decibel (dB)	Unit for measuring the loudness of a sound.
ear canal	The tube in the head that leads to the eardrum.
ear protection	Ear plugs or covers for the ears that stop loud sounds damaging the ears.
eardrum	A thin membrane inside the ear that vibrates when sound reaches it.
infrasound	Sound waves with frequencies below 20 Hz, the lower limit of human hearing.
ultrasound	Sound waves with frequencies above 20 000 Hz, the upper limit of human hearing.
echolocation	Finding prey or obstacles by emitting sounds and listening for the echoes.
longitudinal	A wave where the particles vibrate in the same direction as the wave is travelling.
transverse	A wave where the particles vibrate at right angles to the direction the wave is travelling.
crest	The top of a wave on water.
trough	The bottom of a wave on water.
superposition	When two waves meet and their effects add up or cancel out.

Year 8 – Science – P2b. Light

Reflection, refraction and lenses:

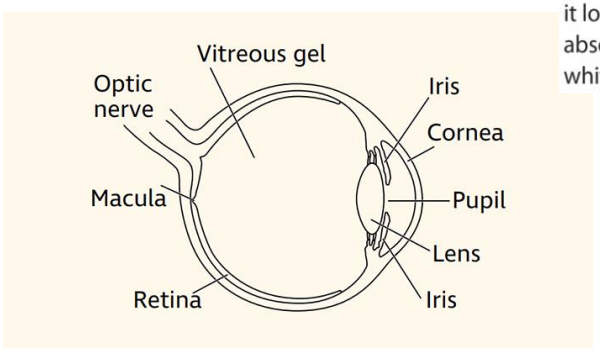






E | a model to explain how a converging lens works

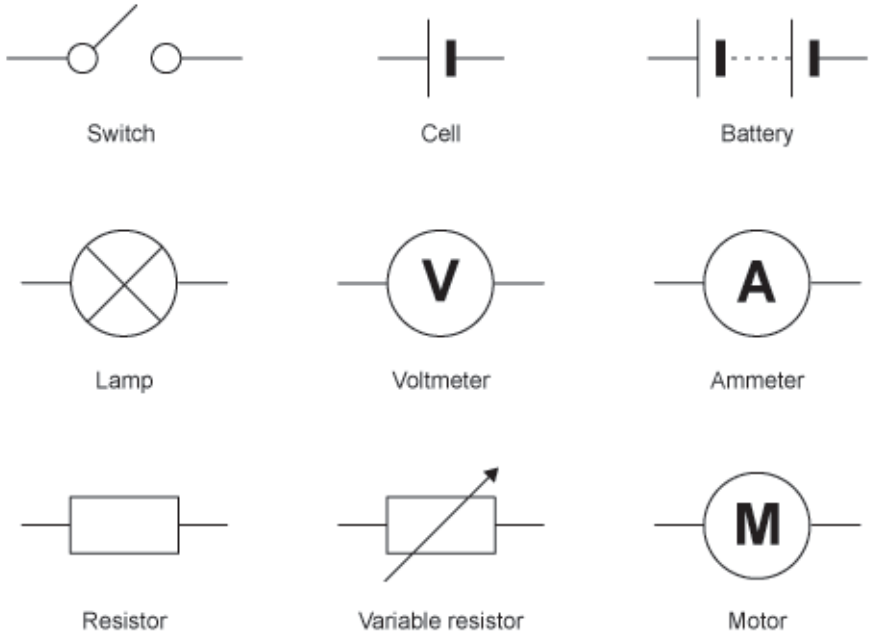
The eye and colour:

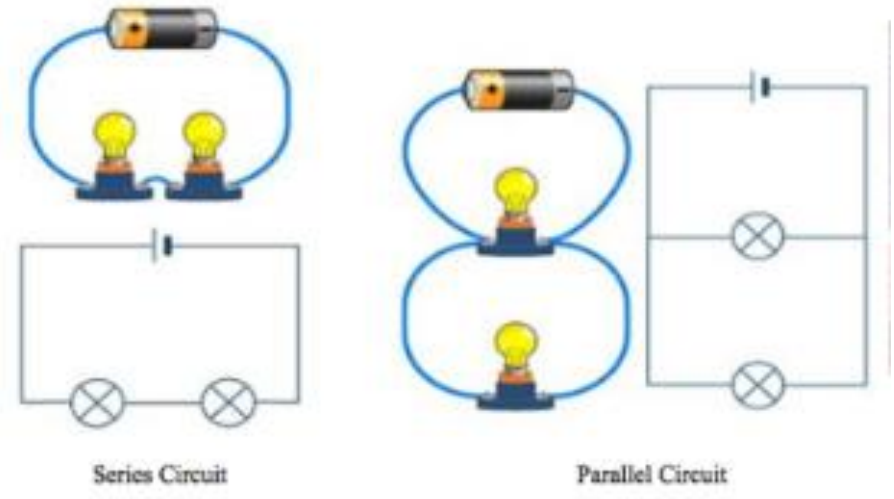


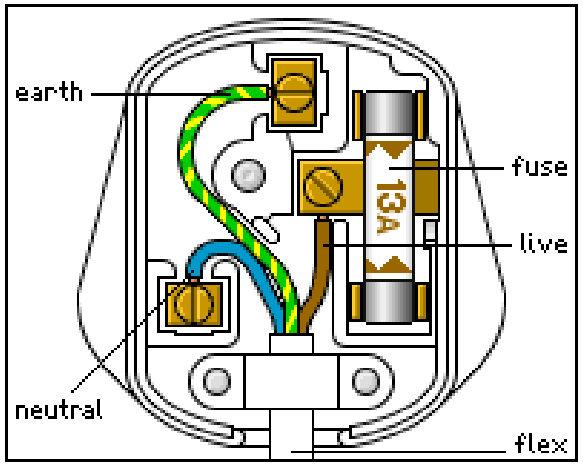
Objects around us appear to be different colours because they absorb and reflect different parts of the spectrum.
A white object looks white because it reflects all the colours.
When you look at a post box in white light (normal daylight) it looks red because it reflects the red frequencies and absorbs the others. Black objects absorb all the colours in white light.

Key word	Meaning
reflected ray	A ray of light bouncing off a mirror.
angle of incidence	The angle between an incoming light ray and the normal.
angle of reflection	The angle between the normal and the ray of light leaving a mirror.
incident ray	A ray of light going towards the mirror or other object.
ray diagram	A diagram that represents the path of light using arrows.
reflected ray	A ray of light bouncing off a mirror.
diffuse reflection	Reflection from a rough surface, where the reflected light is scattered in all directions.
specular reflection	When light is reflected evenly, so that all reflected light goes off in the same direction. Mirrors produce specular reflection.
angle of refraction	The angle between the normal and a ray of light that has been refracted.
converging lens	A lens that makes rays of light come together.
focal length	The distance between the centre of the lens and the focal point.
focal point	The place where parallel rays of light are brought together by a converging lens.
interface	The boundary between two materials.
lens	A curved piece of glass or other transparent material that can change the direction of rays of light.
refraction	The change in direction when light goes from one transparent material to another.
cone cell	A cell in the retina that detects different colours of light.
cornea	The transparent front part of the eye, which covers the iris and pupil.
iris	The coloured part of the eye.
optic nerve	The nerve that takes impulses from the retina to the brain.
primary colour	One of three colours that are detected by the cone cells in our eyes. The primary colours are red, green and blue.
pupil	The hole in the front of the eye that light can pass through.
retina	The part at the back of the eye that changes energy transferred by light into nerve impulses.
rod cell	A cell in the retina that detects low levels of light. It cannot detect different colours.
secondary colour	A colour made when two primary colours mix. The secondary colours are magenta, cyan and yellow.
dispersion	The separating of the colours in light, for example when white light passes through a prism.
filter (physics)	Something that only lets certain colours through and absorbs the rest.
prism	A block of clear, colourless glass or plastic. Usually triangular.
white light	Normal daylight, or the light from light bulbs, is white light.

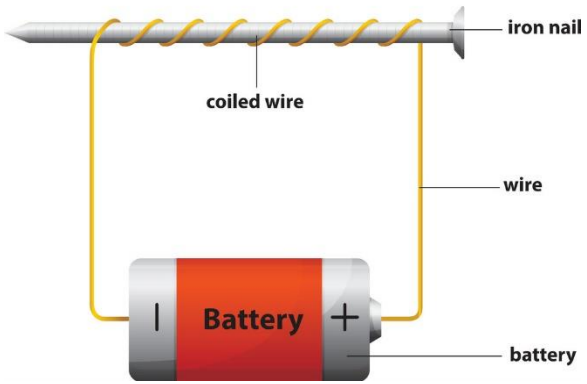
Year 8 – Science – P2c. Electricity







Simple Electromagnet



	Current	Voltage
Series circuit	Current is the same all the way around	Voltage is shared across components
Parallel circuit	Current is shared across branches	Voltage is the same in all branches

Keyword	Definition
Series	A circuit made up of one loop or pathway
Parallel	A circuit made up of more than one loop or pathway
Circuit	Made up of components, such as wires, switches and bulbs linking one side of a battery to the other
Voltage	The difference in energy between two parts of a circuit. Measured in volts (V) using a voltmeter.
Current	The flow of charge around a circuit, in a wire this is the flow of electrons. Measured in amperes or amps (A) using an ammeter.
Resistance	When the flow of charge is reduced, the greater the resistance the more the flow of charge will be reduced.
Components	The different things that make up a circuit, such as: wires, bulbs, switches, cells.
Cell	A single 'battery', like the type you would put in a torch or TV remote.
Fuse	A fuse is a safety feature and contains a piece of wire that melts easily if too much current passes through it and breaks the circuit.
Plug	A plug connects an electrical device to mains electricity.
Electrical safety	Electrical safety is all the measures that are in place to prevent harmful and dangerous effects of electricity.
Magnet	A magnet is a material or object, made of iron, nickel or cobalt, that produces a magnetic field.
Attract	To cause an object to approach or adhere (a magnet attracts iron).
Repel	To cause an object to move away (like poles of a magnet repel).

Y8 ART DAY OF THE DEAD KNOWLEDGE ORGANISER
Developing ideas cultural research
Recording ideas.
Using resources – testing out ideas/media.
Making a personal response – final outcome.

What makes a successful Day of the Dead artist research board?

- Cultural information/nationality/Inspiration.
- Exploration of links to natural forms.
- Colour testing
- Pattern testing
- Own response.

What message is behind Day of the Dead artwork?
A good written analysis should include correct art vocabulary and your own opinion of the work.

What needs to be included to record my own ideas?

- Realistic tonal drawings.
- Flowers.
- Insects.
- Pattern developments.

Good observational drawings should show a clear understanding of tonal shading/gradients/directional shading and detail.

How do I develop my ideas to create a response to Day of the Dead cultural art? :

- Use the ideas behind the work to inspire you.
- Combine symbols and patterns in a creative way.
- Use harmonious colour wash paint techniques successfully.

A good artist response should link to the ideas and inspiration behind the work and use similar materials and techniques with skill and control.

Wider Thinking:
Look at Tim Burton's Corpse Bride or Disney's Pixar film 'Coco.'

Expert modelling example..

Tonal drawings/Natural forms

Pattern/colour testing//Own response

Stretch and Challenge:
Use and combine materials and techniques with a high level of skill and control.

Keyword	Definition
Analyse	Examine in detail.
Simplificaiton	Taking away complicated details.
Apply	Put skills/knowledge/understanding into action.
Describe	Give a clear description that includes all the main features – think of it as 'painting a picture with words'.
Watercolour wash	A watercolour wash is a layer of diluted paint. Washes are applied over a large area of a painting to help create backgrounds or build layers of colour.
Composition	The arrangement of the subject matter, such patterns and symbols on the areas of the skull.
Investigate	Test the qualities of materials, techniques or processes through practical work.
Skilful	Apply materials, techniques and processes with a high level of understanding, ability and control.
Refine	Improve work taking into account feedback and aims.
Formal Elements Colour, pattern, shape	Key words that can be applied and used to describe 2D and 3D art and design.
Harmonious colour:	Harmonious colours sit next to each other on the colour wheel and often link to nature.

Y8 Sandra Chevrier KNOWLEDGE ORGANISER
Developing ideas/artist research
Using resources – testing out ideas/media.
Making a personal response – final outcome.

How do I identify the formal elements of Sandra Chevrier's work to create a written analysis?

- Artist's information/nationality.
- Inspiration
- Colour
- Composition
- What message is the artist trying to put across?

A good written analysis should include correct art vocabulary and your own opinion of the work.

What needs to be included to create a good copy of Sandra Chevrier's work?

- Realistic detail
- Finer details
- Collage

A good artist copy should show a clear understanding of the artist's use of materials and techniques..

How do I develop my ideas to create a response to Sandra Chevrier'swork? :

- Use the idea behind her work to inspire you.
- Use her composition style you like best,
- Make your work as detailed as possible.
- Use a collage material that links to your chosen celebrity.

A good artist response should link to the ideas and inspiration behind the artist's work and use her materials and techniques with skill and control.

Stretch and Challenge:
Have a go at drawing facial features using pencil crayons.

Expert modelling example..

Artist copy/written analysis

Artist response

Wider Thinking:
Research the meaning behind 'The Caged' series by Sandra Chevrier to understand the greater meaning behind her work.

Keyword	Definition
Analyse	Examine in detail.
Tone	**Tone** in an artistic context refers to the light and dark values used to shade a realistic object.
Apply	Put skills/knowledge/understanding into action.
Describe	Give a clear description that includes all the main features – think of it as 'painting a picture with words'.
Finer Details	The details of something are its individual features or elements.
Composition	The arrangement of the subject matter, such as figures, trees, and so on in a work of art.
Investigate	Test the qualities of materials, techniques or processes through practical work.
Skilful	Apply materials, techniques and processes with a high level of understanding, ability and control.
Refine	Improve work taking into account feedback and aims.
Formal Elements	Key words that can be applied and used to describe 2D and 3D art and design.
Collage	A collage is a picture that has been made by sticking pieces of coloured paper and cloth onto paper.

Y8 TEXTILES SWEET TREATS KNOWLEDGE ORGANISER

Running Stitch

Back Stitch

Cross Stitch

Blanket Stitch

LOWEST LEVEL → HIGHEST LEVEL

Step One - Draw your design onto paper and cut out using paper scissors.

Step Two - Pin your template to the CORNER of your felt piece. This prevents waste and means that someone else can use the same piece of felt

Step Three - Use the same template and pin to fabric that already has Bondawebb ironed onto the back.

Step Four - Using fabric scissors cut out the letters. These will then be placed onto your original orange piece.

Step Five - Pin your black writing in place.

Step Six - Use Running Stitch to sew down your writing.

Needle & Thread

Around the edge of each letter

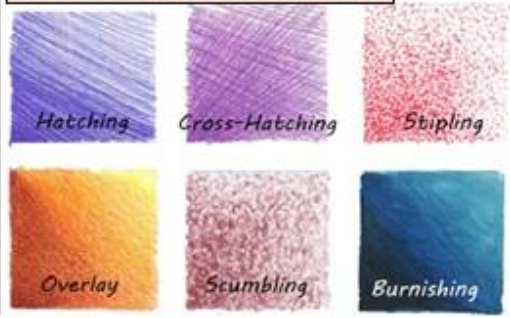
Once you have your applique pieces cut out, lay them out in your design and pin to your fabric.

Make sure you only pin to the front piece of your Tie Dye.

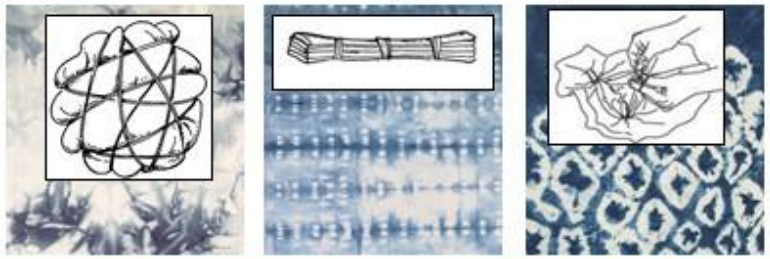
Applique your pieces into place – You should hand stitch them in place. Highest grades will use a variety of different stitches. Read the grade descriptors to help you reach your target grade!

Final Product – Sweet Treat Cushion

Shading Techniques

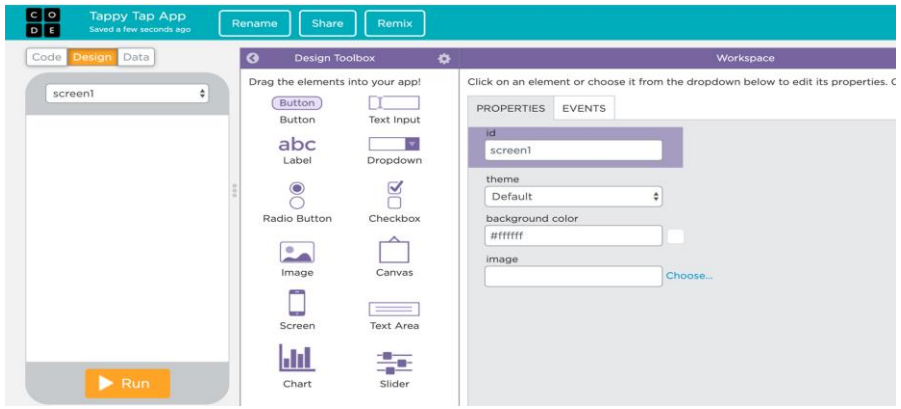


Tie Dye Techniques



Keyword	Definition
Analyse	**Analysis** is the process of breaking a topic or substance into smaller parts in order to gain a better understanding of it
Gradient	Gradation in **art** is a visual technique of gradually transitioning from one colour to another, or from one shade to another, or one texture to another.
Soft Sculpture	3D Art made from fabric.
Analogous	Colours that are next to each other on the colour wheel.
Influence	Something or someone that influences a person or thing, then, has an influence on that person or thing.
Mono - Transfer	Shade the back of an image, place onto a clear piece of paper or fabric and trace so that the detail imprints.
Embroidery	**Embroidery** is the craft of decorating fabric or other materials using a needle to apply thread or yarn.
Applique	Layering pieces of fabric that are sewn or stuck on to a larger piece to form a picture/pattern.
Tie - Dye	A hand method of producing patterns in textiles by tying portions of the fabric or yarn so that they will not absorb the **dye**.

Year 8 – Computing – Mobile App Development



App Lab is a programming environment where you can make simple apps. Design an app, code in JavaScript with either blocks or text, then share your app in seconds.
https://code.org/educate/applab

Careers

- Software development
- Programing
- Software Engineering

Event Driven Programming

In event-driven programming, the flow of the program is controlled by events.

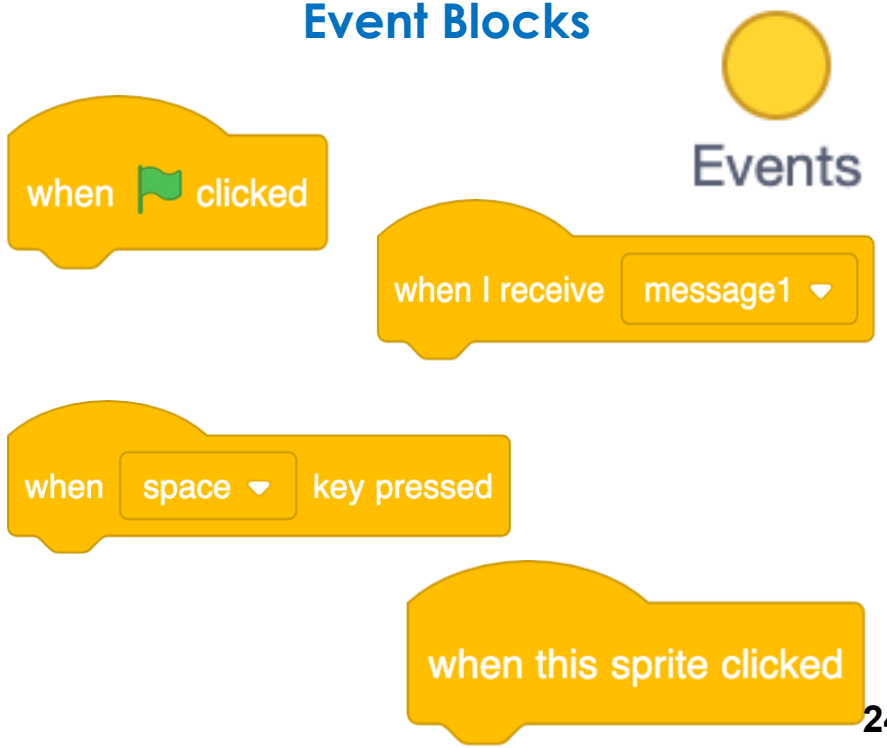
Events can be user actions such as:

- Mouse clicks (or the touchscreen equivalent)
- Key presses
- Hovering over a picture
- Voice input ("OK Google…")

Events can also be also be triggered by:

- Sensors (e.g. if movement is sensed, turn the light on)
- Messages from other programs

Event Blocks



Year 8 – Computing – Mobile App Development

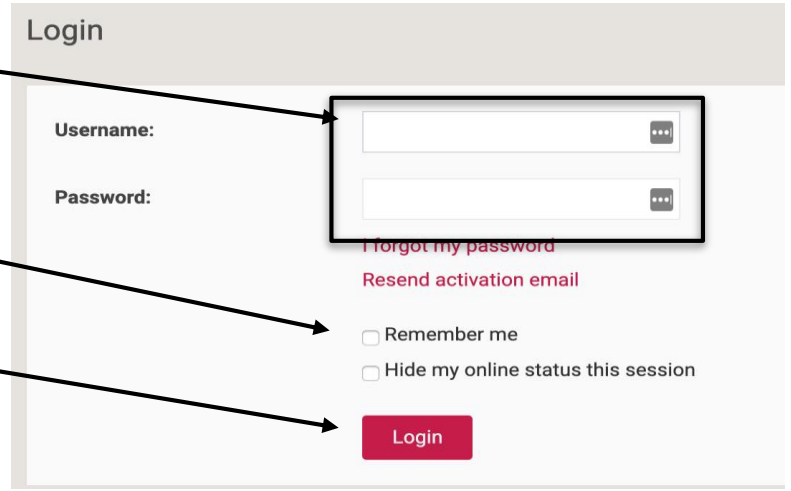
Careers
- Software development
- Programing
- Software Engineering

User input

Text boxes (allowing for the user to input a text string)

Checkboxes (allowing for the user to indicate a yes or no response)

Button (linked to an event that will capture and process the data when it is clicked)



What would each block of code do if the user scored 7?

What is the difference between the two blocks of code?

Selection

These two blocks of code have the same purpose, which is to provide feedback to the user at the end of a game.

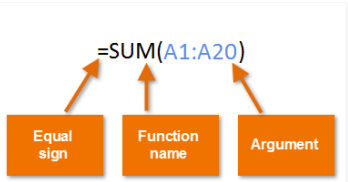
```
if ( score > 10 ) {
  setText( "feedback_label", "Great Work");
} else if ( (score > 6) ) {
  setText( "feedback_label", "Not Bad");
} else {
  setText( "feedback_label", "Hard Luck");
}
```

```
if ( score > 10 ) {
  setText( "feedback_label", "Great Work");
} else {
  setText( "feedback_label", "Hard Luck");
}
```

Year 8 – Computing – Excel-ling

Type of Functions

There are many types of Functions that can be used in spreadsheets helping to make calculations a lot easier. Some common uses are **MIN** of Minimum, **MAX** for Maximum, **AVG** for Average and **SUM** for Sum total



This is the correct way to structure a function – Remember always start with a =

Absolute Cell Referencing

Absolute Reference in Excel

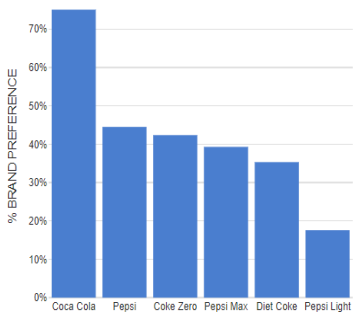
=E35*E33

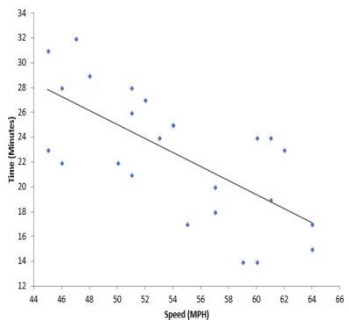
	B	C	D	E	F
			GST	10%	
	Item	Quantity	Price (Rs.)	Total Price	Total Price with GST
	Marie Gold Biscuits	5	40	200	=E35*E33

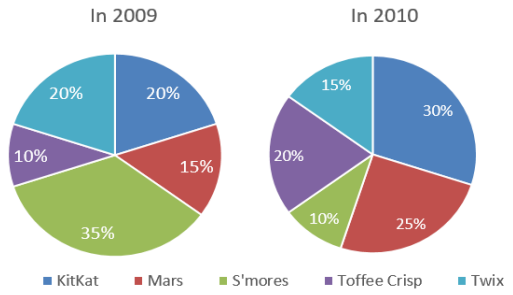
Select a cell which you need to permanently look at and press **F4** on you keyboard to make the absolute cell referencing $ to appear around the selected cells.

Type of Graphs

Bar chart	Visual tool, uses bars easy to see difference, long bar means greater value
Pie chart	size of portion represents the quantity, visually simple to flow, good for summaries
Scatter graph	show relationship between 2 variables, maximum and minimum values are easy to work out







Keywords	Definition
Absolute Cell Referencing	When you want a formula to consistently refer to a particular cell.
Function	is a predefined **formula** that performs calculations in a particular order
Formula	is an expression which calculates the value of a **cell**
Conditional formatting	is a feature which allows you to apply a format to a cell or a range of cells based on certain criteria

IF Statement…

C2 =IF(B2<=50,"Fail","Pass")

	A	B	C	D	E	F
1	Student Name	Scores	Result			
2	BRUCE GEYER	37	Fail			
3	ELIZABETH STERN	73	Pass		Criteria	Result
4	MASATOSHI HENDERSON	62	Pass		Below or Equal to 50	Fail
5	CHRISTINE YOSHIMURA	43	Fail		Above 50	Pass
6	JOHN ADAMSON	35	Fail			
7	IRVING PIANKA	86	Pass			
8	EILEEN HAAS	81	Pass			
9	VINCENZO KWAN	50	Fail			

The **IF function** can perform a logical test and return one value for a TRUE result, and another for a FALSE result.

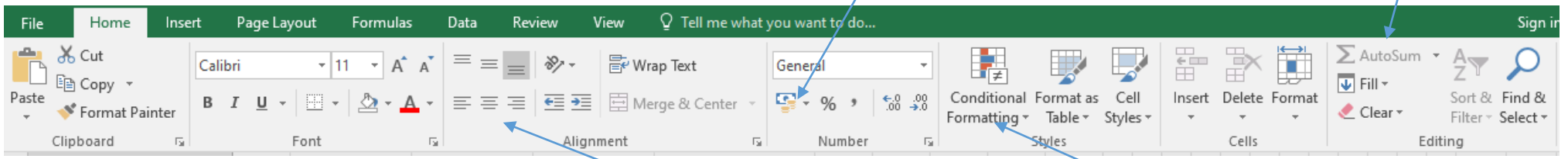
For example, a "Fail" is scores below 50:
=IF(B2<=50,"Fail","Pass")

Year 8 – Computing – Excel-ling

Excel Spreadsheet toolbar

AutoSum
Automatically add totals of selected cells

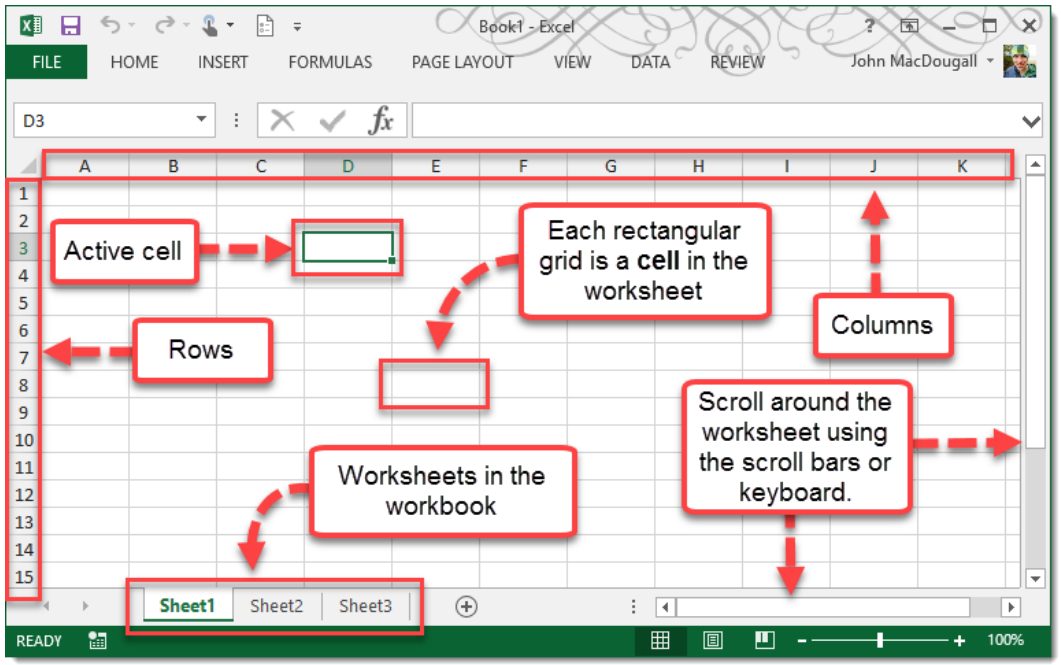
Currency / Accounting format
Used to add currency to the numbers in the cell



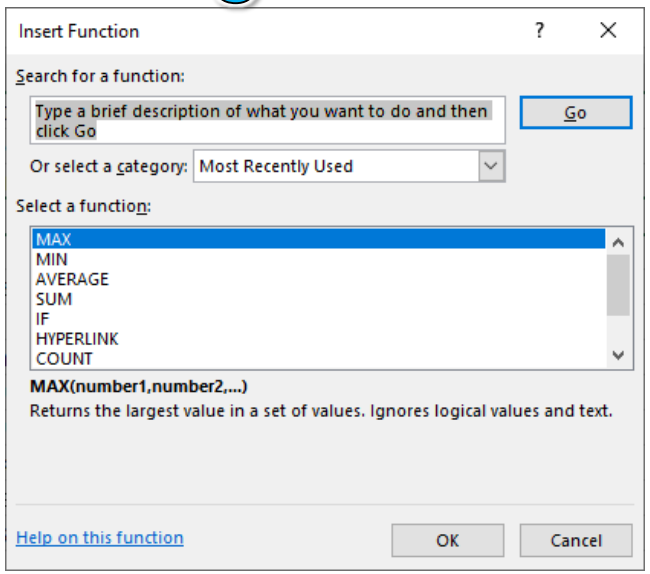
Conditional Formatting
Used to spot trends and patterns in your data

Text Alignment
Helps user align the text within the selected cell/s

Layout of a spreadsheet



Finding a function



is a predefined **formula** that performs calculations using specific values in a particular order

Year 8 – Drama – Basic Drama Skills- Superheroes

What needs to be included in a good **freeze frame**? :

- Facial expressions
- Body Language
- Gestures
- Stillness
- Silence

A good Freeze frame should freeze at a key moment of the story.

What needs to be included in a good **thought track**? :

- Projection
- Vocal tone
- Focus

A good thought track should be detailed.
"I feel……because……."

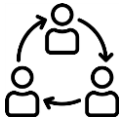
What needs to be included in a good **narration**? :

- Projection
- Vocal tone
- Focus
- Introduction of characters
- Introduction of setting

A good narration should be detailed and tell the audience what has happened prior to the scene.

Steps to a good performance.

Collaborate as a group and discuss initial ideas



Create a **freeze frame** to show the audience your key idea.

Add one **thought track** per character so the audience can learn more about your character.

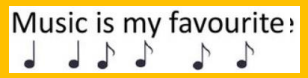
As a group, decide on a **narrator** and add a **narration** to the start of your scene to introduce characters and setting.

Keyword	Definition
Body Language	Using posture or movement to communicate how your character is feeling.
Collaboration	Working together as a group to create something new
Communication	Exchanging information through speaking, writing, or non-verbal communication.
Concentration	Focussing on the set task.
Facial Expressions	Showing your emotion through your face.
Focus	Not laughing while you are on stage and staying in character.
Freeze Frame	A frozen snapshot in time showing a key moment in a story.
Gestures	Using your hands to show the audience where to look through pointing, waving etc.
Narration	Telling the audience key moments of the story. Example: settings and characters.
Projection	Using a loud volume to make sure you are heard.
Thought Track	Stepping out of a freeze frame and telling the audience your character's inner thoughts.
Vocal Tone	Showing emotion through your voice.

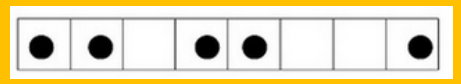
Year 8 Music – I've got Rhythm

Key Words

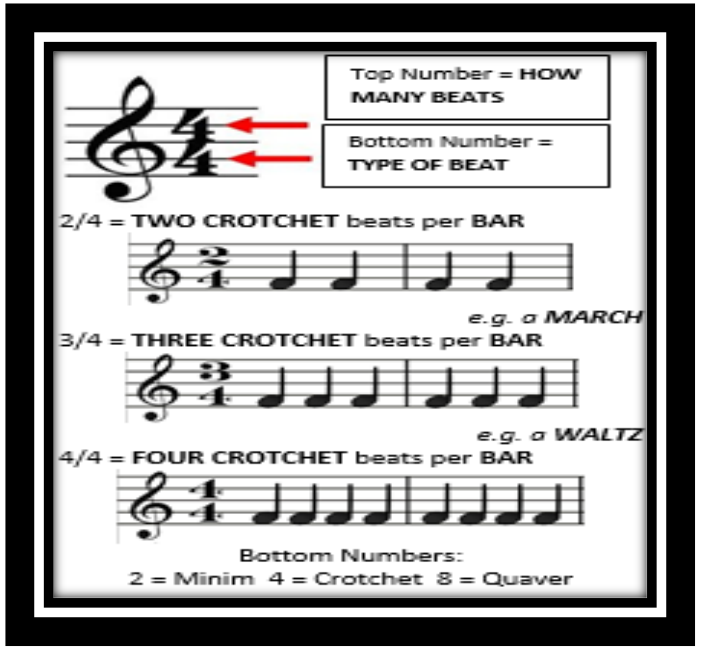
PULSE – A regular BEAT that is felt throughout much music. Certain beats of the pulse can be emphasised to establish regular pulse patterns e.g.
1 2 3 4, 1 2 3 4 = a 4-beat pulse
1 2 3, 1 2 3 = a 3-beat pulse (often called a WALTZ)
1 2, 1 2, 1 2 = a 2-beat pulse (often called a MARCH)

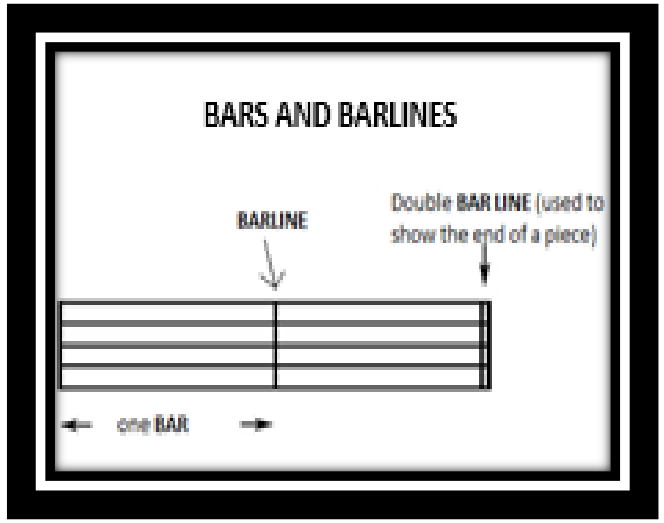


RHYTHM – A series of sounds or notes of different lengths that create a pattern. A rhythm usually fits with a regular pulse. Everyday sentences can be used to create rhythms. The patterns made by words create rhythms and this rhythm has a 4-beat pulse:
ACCENT – Emphasising or stressing a particular note or notes. Accents affect the ARTICULATION and are shown with this symbol >
DURATION – The length of a sound – long/short
TEMPO – The speed of a sound or piece of music – fast/slow
TEXTURE – Layers of sound or how much sound is heard – thick/thin
STRUCTURE – The organisation of sound or how sounds are ordered
SILENCE – The absence of sound or no sound, shown in music by RESTS.
RHYTHM GRID NOTATION – A way of writing down and recording rhythms using boxes



A TIME SIGNATURE tells us how many beats (and what types of beats) there are in each BAR of music and is made up of two numbers at the beginning of a piece of music

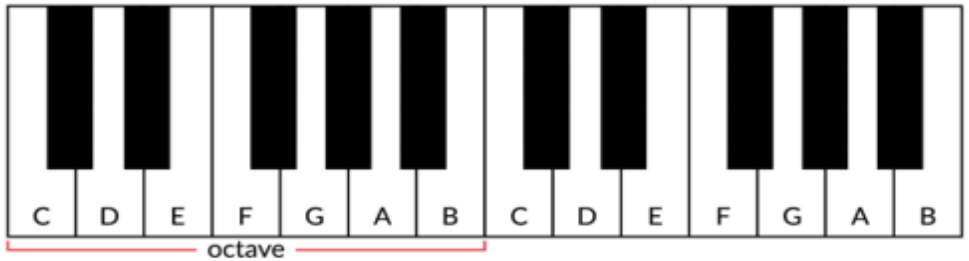




Note Name	Note Symbol	Note Value
Semibreve		4 beats
Minim		2 beats
Crochet		1 beat
Quaver		½ of a beat
Pair of Quavers		2 x ½ beats = 1

Year 8 Music – Keyboard Skills

Layout of a Keyboard/Piano



A piano or keyboard is laid out with **WHITE KEYS** and Black Keys (see section G). C is to the left of the two Black Keys and the notes continue to G then they go back to A again. Notes with the same letter name/pitch are said to be an **OCTAVE** apart. **MIDDLE C** is normally in the centre of a piano keyboard.

Left Hand/Right Hand (1-5)

Treble Clef & Treble Clef Notation

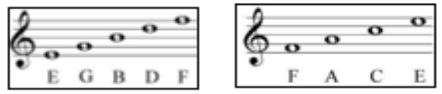
A **STAVE** or **STAFF** is the name given to the five lines where musical notes are written.

The position of notes on the stave or staff shows their **PITCH** (how high or low a note is).

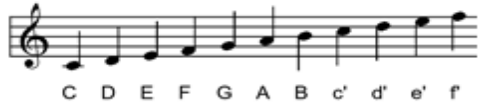
The **TREBLE CLEF** is a symbol used to show high-pitched notes on the stave and is *usually* used for the right hand on a piano or keyboard to play the **MELODY** and also used by high pitched instruments such as the flute and violin.

The stave or staff is made up of 5 **LINES** and 4 **SPACES**.

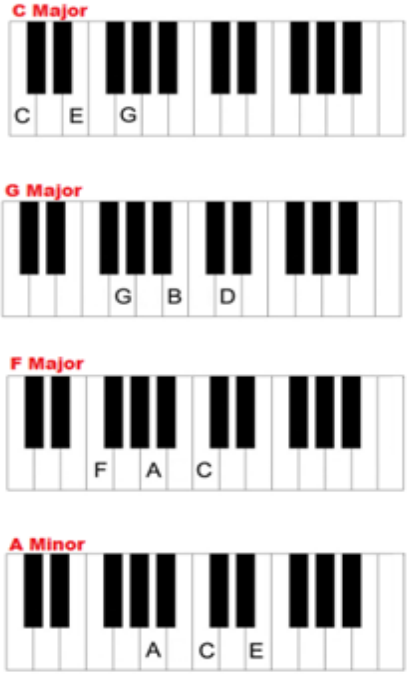
Every Green Bus Drives Fast. Notes in the **SPACES** spell **"FACE"**



Notes from **MIDDLE C** going up in pitch (all of the white notes) are called a **SCALE**.



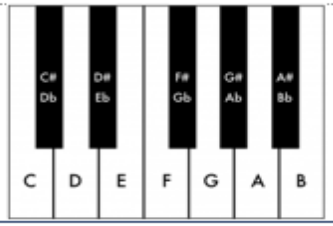
Keyboard Chords



Play one – Miss one – play one – miss one – play one

Black Keys and Sharps and Flats

There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches. Each one can be a **SHARP** or a **FLAT**. The # symbol means a **SHARP** which raises the pitch by a semitone *(e.g. C# is higher in pitch (to the right) than C)*. The *b* symbol means a **FLAT** which lowers the pitch by a semitone *(e.g. Bb is lower in pitch (to the left) than B)*. Each black key has 2 names – C# is the same as D*b* – there's just two different ways of looking at it! Remember, black notes or keys that are to the **R**IGHT of a white note are called SHA**R**PS and black notes to the **L**EFT of a white note are called F**L**ATS.



Year 8 What is Design Technology?

Design and technology gives young people the skills and abilities to engage positively with the designed and made world and to harness the benefits of technology.

Tools and Equipment

	**Marking knife** Used to mark out on woods		**Sand paper** Used to remove cut lines from wood
	**Tenon Hacksaw** Used to cut straight lines into wood		**Disk sander** Used to create a nice finish on wood
	**Coping Saw** Used to cut curved lines into wood		**File** Used to shape and flatten materials

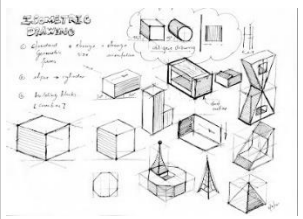
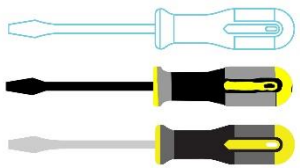
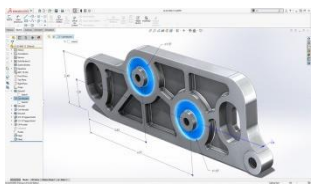
Health and safety

Machine guard Protects from flying debris	**Floor marking** Creates a safe zone around the machine	**Safety signs** Warning and advisory signs	**Table Vice** Hold your work steady
			

Materials

Pine wood A common wood used in construction	**High impact polystyrene** Cheap plastic used for most plastic products	**Oak wood** An expensive wood used for furniture	**Neoprene** A thermal plastic that helps insulate
			

Design Ideas

3D isometric sketching Presenting your ideas in 3D to show more than 1 side of your idea	**Rendering** Using tonal shading to make your ideas appear 3D	**2D sketching** A basic and sketching process to show one side of your idea	**CAD** Computer aided design is used to design product on a digital screen
			

Keywords	***Tools and Machines***	***Materials***
Analysing Investigating Collate Develop Improve Manufacture Evaluate Explain Technical Dimension Tolerance Quality check	Metal files Pillar drill Wet & dry paper Vacuum former Wire wool Laser Cutter 2D Design Bench Vice Junior Hacksaw Safety ruler Pliers Engraver	Acrylic Aluminium Ferrous Non-ferrous Metal Alloy Polyvinyl chloride (PVC) High-density polyethylene ABS Copper Mild steel Polypropylene

Year 8 What is Engineering?

Engineering is the application of science and math to solve problems. Engineers figure out how things work and find practical uses for scientific discoveries.

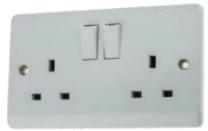
Tools and Equipment

	**Scribe** Used to mark out on metals		**Emery cloth** Used to remove burrs and sharp edges
	**Junior Hacksaw** Used to cut into metals		**Pillar Drill** Used to cut circular holes into materials.
	**Engraver** Used to scratch designs into metal		**File** Used to shape and flatten materials

Health and safety

Goggle Protect your eyes	**Apron** Protect your clothing	**Hair tie** Protect your hair from entanglement	**Vice** Hold your work steady
			

Materials

Mild steel A common material used in construction	**Acrylic** A recyclable type of plastic	**Aluminium** A light-weight metal used in drinks cans	**Urea Formaldehyde** A plastic used for tougher products
			

Engineers and their processes

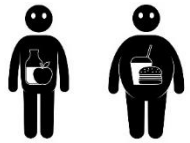
Mechanical engineering studies the design, manufacture and use of machines	**Electrical engineering** studies the practical applications of electricity and magnetism	**Civil engineering** studies the design, planning and construction of large structures	**Chemical engineering** studies the process and equipment needed to manufacture chemical products on a large scale
			

Keywords	*Tools and Machines*	*Materials*
Analysing Investigating Collate Develop Improve Manufacture Evaluate Explain Technical Dimension Tolerance Quality check	Metal files Pillar drill Wet & dry paper Vacuum former Wire wool Laser Cutter 2D Design Bench Vice Junior Hacksaw Safety ruler Pliers Engraver	Acrylic Aluminium Ferrous Non-ferrous Metal Alloy Polyvinyl chloride (PVC) High-density polyethylene ABS Copper Mild steel Polypropylene

Year 8 – Food Technology

Why do we need to eat a **balanced diet**?

1. To achieve and maintain a healthy body weight.

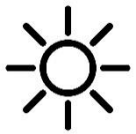


2. For growth and repair

3. To build a strong immune system, prevent disease and infection.

4. To provide energy.

5. To keep us warm.



How do we achieve a balanced diet?
Eight Healthy Tips:

1. Base your meals on starchy foods.

2. Eat lots of fruit and vegetables.

3. Eat more fish – including a portion of oily fish each week.

4. Cut down on saturated fat and sugar.

5. Eat less salt – no more than 4g a day for children.

6. Get active and try to be a healthy weight.

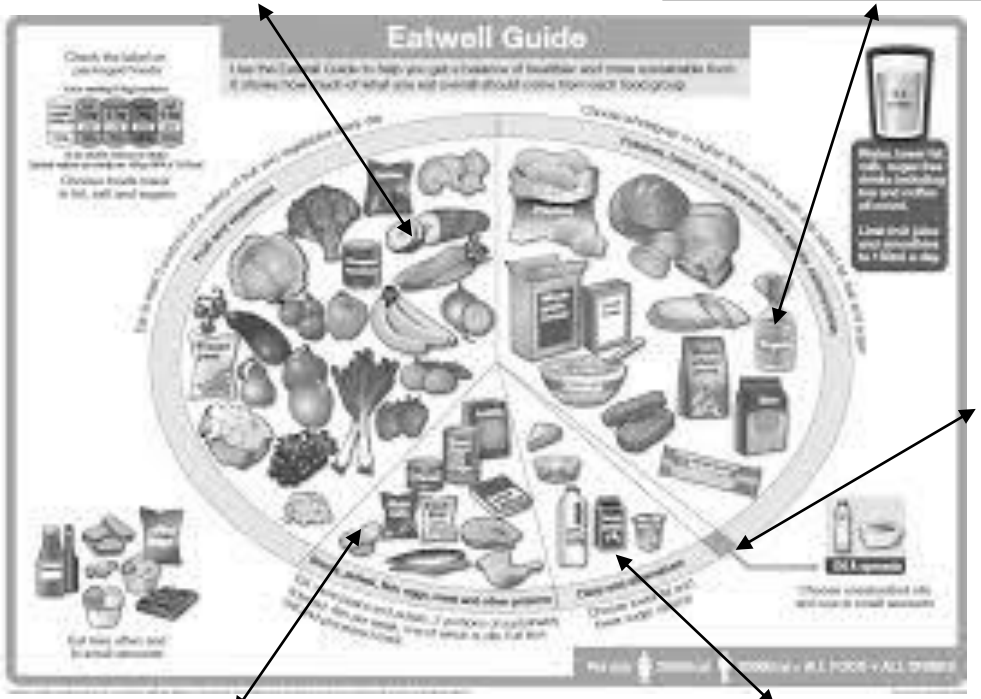
7. Drink plenty of water.

8. Do not skip breakfast.

Eatwell Guide: The Eatwell Guide outlines the recommendations for eating a healthy balanced diet. The guide shows the different types of foods and drinks you should consume – and in what proportions – every day or over a week. The Eatwell Guide shows how much of what you eat overall should come from each food group

Green Section:
Fruit and vegetables are a good source of vitamins, minerals and fibre, needed to build a strong immune system.

Yellow Section:
Starchy foods are a good source of energy. Choose wholegrains for increased fibre, needed to prevent constipation



Purple Section:
Fats, oils and spreads should be eaten sparingly. These do provide energy.

Pink Section:
Beans, pulses, eggs, meat and fish are a good source of protein needed for growth, repair.

Blue Section:
Dairy foods provide a good source of calcium and vitamin D needed for strong bones and teeth.

Year 8 – Food Technology

There are **seven** major classes of nutrients: carbohydrates, fats, dietary fibre, minerals, proteins, vitamins, and water. These nutrient classes can be categorised a either **macronutrients** (needed in relatively large amounts) or **micronutrients** (needed in smaller quantities).

Macronutrients:

Carbohydrates provides the body with **energy**. There are two main types, complex and simple. **Complex carbohydrates** give **long lasting energy**. These are found in foods such as bread, pasta and cereals. **Simple carbohydrates** make blood sugar levels go up very quickly. This provides a **short burst** of **energy.** These are found in 'sugary; foods such as cakes, jams and sweets.

Protein is needed for **growth** and to **repair** cells. Protein is made up of amino acids. Proteins that are high in essential amino acids are called **high biological value (HBV)** proteins. These are found in milk, cheese, fish, eggs, meat and soya beans. Proteins that are low in amino acids are called **low biological value (LBV)** proteins. These are found in nuts, cereals and pulses.

Fats are used by the body for **energy.** Fat also forms an insulating layer under your skin to keep us **warm** and **protect our organs,** such as our kidneys. There are two main types of fat, **saturated** and **unsaturated.** Foods such as meat, cheese and butter are high in saturated fats. Foods such as seeds, fish and vegetable oils are high in unsaturated fats. We should eat less saturated fats.

Fibre helps food to move through our bowels and prevent **constipation**. Foods such as vegetables, wholemeal bread and beans are high in fibre.

Water is needed for lots of reasons, keeping our body at the right **temperature**, **digesting** food, **lubricating** our bones and keeping us **hydrated**. Water is found in drinks, fruits and vegetables.

Keywords	Definition
Constipation	Difficulty empting the bowels
Cholesterol	A type of fat found in our blood
Obesity	Overweight
Diabetes	A disease that occurs when your blood glucose (blood sugars), is too high.

Micronutrients:

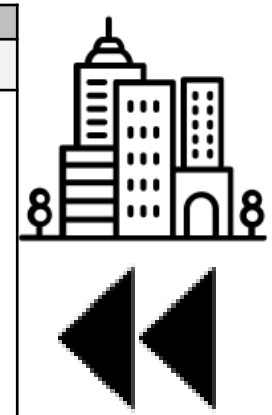
Vitamin	What we need it for	Examples of where we get it from
A	Good vision and immune system	
B Group	Releasing energy from carbohydrates	Meat 
C	Fighting diseases and helping the body to absorb iron	
D	Along with calcium, it helps our body make strong bones and teeth	Oily 
Minerals	**What we need it for**	**Examples of where we get it from**
Iron	To make red blood cells to carry oxygen around the body	Green leafy veg 
Calcium	Along with vitamin D, calcium helps make strong bones and teeth	

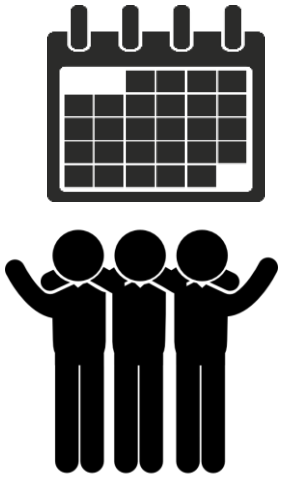
Consequences of a poor diet:

- Eating too many carbohydrates, fatty foods or sugary foods can lead to **obesity,** which can increase the risk of **type 2 diabetes** and **heart disease.**
- Eating too many salty foods can cause **high blood pressure.**
- Too much saturated fat can lead to **high cholesterol.**

Year 8 French – Topic 5 – Out and about

A. Où es-tu allé récemment ? Where have you gone recently?							
Past time phrase	*Perfect tense verb phrase*		*Connective*	*Opinion phrase*	*Verb*	*Quantifier*	*Adjective*
Hier Yesterday **Hier soir** Yesterday evening **Récemment** Recently **La semaine dernière** Last week	**je suis allé[e]** I went	**au cinéma** to the cinema **au parc** to the park **prendre un verre** for a drink	**et** and	**je crois que** I believe that **je pense que** I think that **à mon avis** in my opinion **selon moi** as I see it	**c'était** it was	**assez** quite **très** very **trop** too **un peu** a bit **vraiment** really	**amusant** fun **divertissant** entertaining **génial** great **incroyable** incredible **relaxant** relaxing **ennuyeux** boring **fatigant** tiring **insupportable** unbearable **nul** rubbish
	j'ai fait I did	**du shopping** shopping **des excursions** trips **des promenades** walking					
	j'ai mangé I ate	**au fast-food** **au restaurant** at the restaurant					
	j'ai visité I visited	**le musée** the museum **des monuments** the monuments					

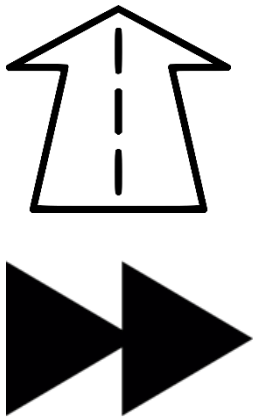




B. Tu veux sortir ? Do you want to go out?			
Verb	*Preposition + place*	*Agreeing and disagreeing*	
Tu veux aller Do you want to go	**au centre commercial ?** to the shopping centre? **au centre sportif ?** to the leisure centre? **au cinéma ?** to the cinema? **au collège ?** to the school? **au marché ?** to the market? **au parc ?** to the park? **au stade ?** to the stadium? **à la bibliothèque ?** to the library? **à la gare ?** to the train station? **à la piscine ?** to the swimming pool?	**Oui,** Yes,	**je veux !** I want to! **bonne idée !** good idea! **si tu veux.** if you want. **d'accord.** OK. **pourquoi pas ?** why not? **super !**
		Non merci, No thanks,	**je pense que c'est vraiment nul.** I think it's really rubbish. **je pense que c'est trop ennuyeux.** I think it's too boring. **je n'ai pas envie.** I don't fancy it. **je préfère rester chez moi.** I prefer to stay at home. **j'ai beaucoup de devoirs.** I have lots of homework.

Year 8 French – Topic 6 – Looking to the future

A. Quel emploi aimerais-tu dans le futur ? What job would you like in the future?						
Future time phrase	*Conditional verb*	*Masculine nouns*	*Feminine nouns*	*English*	*Conditional verb*	*Adjective*
Quand je serai vieux/vieille When I'm older **Dans le futur** In the future **À l'avenir** In the future	**j'aimerais être** I would like to be **je voudrais être** I would like to be	**agriculteur** **architecte** **avocat** **comptable** **électricien** **infirmier** **journaliste** **mécanicien** **médecin** **pilote** **professeur** **vétérinaire**	**agricultrice** **architecte** **avocate** **comptable** **électricienne** **infirmière** **journaliste** **mécanicienne** **médecin** **pilote** **professeure** **vétérinaire**	farmer architect lawyer accountant electrician nurse journalist mechanic doctor pilot teacher vet	**ce serait** it would be	**amusant** fun **divertissant** entertaining **extraordinaire** extraordinary **génial** great **incroyable** incredible **passionnant** exciting **spectaculaire** spectacular

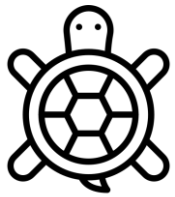


B. Quel sont tes projets pour l'avenir ? What are your future plans?			
Future time phrase	*If clause*	*Conditional verb*	*Infinitive phrase*
Dans le futur In the future **À l'avenir** In the future	**si j'avais de l'argent** if I had the money **si j'avais l'opportunité** if I had the opportunity **si je pouvais** if I could	**j'aimerais** I would like **je voudrais** I would like	**aller à l'université** to go to university **avoir des enfants** to have children **faire du bénévolat** to do volunteering **me marier** to get married **partir à l'aventure** to go on an adventure **prendre une année sabbatique** to take a gap year/sabbatical **voyager sac au dos** to go backpacking

Year 8 – Geography – Global Issues

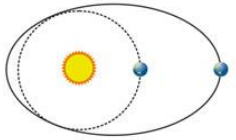
Plastic Pollution

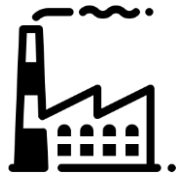
- A lot of plastic waste that humans dispose of end up in our oceans.
- This severely damages ocean habitats and can pollute ocean water.
- When marine animals consume micro-plastics (tiny plastic parts), this enters the food chain and we can end up eating micro-plastics too!
- Plastic is non-biodegradable. It takes far longer to decompose in the ground than products such as paper and food waste.
- Plastic bags can take 10-20 years to decompose but a plastic bottle can take around 450 years!
- We are trying to come up with solutions to reduce the amount of plastic in the oceans. These include: plastic bag taxes, using 'Bags For Life', replacing plastic with paper straws and reusable cups. These help to limit the use of 'single-use plastics;.
- There are problems with some solutions to plastic pollution and one of these includes the idea that buying from 'plastic free stores' is more expensive. People may not want to pay more or may be unable to do this.

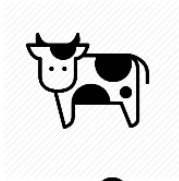


Climate Change

- Earth's climate has changed over time – we have experienced glacial (cold) and interglacial (warm) periods.
- Some of the causes of this climate change are natural.
- The ash from volcanic eruptions can block the sun's rays leading to a cooler climate, the Earth's orbit (Milankovitch Cycles) can lead to warming or cooling of the Earth, and sunspots can cause the Earth to get warmer.
- However, humans can lead to climate change (anthropogenic climate change).
- When we increase agriculture and deforestation, and burn fossil fuels for energy, we release greenhouse gases (e.g. carbon dioxide, methane) into the atmosphere.
- As these levels of greenhouse gases increase, more heat is trapped in the atmosphere and the global average temperature increases.

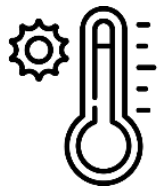






What could be the effects of climate change?

- More extreme weather (storms)
- Coastal flooding (linked to sea level rise)
- Disruption to habitats (which could lead to the extinction of some species)
- Warmer oceans



Keyword	Definition
Agriculture	Farming.
Anthropogenic	Originating from human activity.
Biodegradable	Can be decomposed by bacteria or other living organisms, avoiding pollution.
Climate Change	A change in global or regional climate patterns.
Deforestation	Cutting down trees.
Eco-tourism	Sustainable method of tourism designed to limit damage and disruption to the environment.
Geopolitics	Politics that have been influenced by geographical factors.
Glacial	A period when polar and mountain ice sheets were across a lot of the Earth's surface.
Global Warming	A gradual increase in the overall temperature of the Earth's atmosphere.
Greenhouse Gas	Gases that contribute to the greenhouse effect e.g. carbon dioxide.
Human-induced climate change	A change in global or regional climate patterns that can be linked to human activity.
Interglacial	A period when there is warmer global average temperatures – the opposite of a glacial period.
Micro plastics	Pieces of plastic that measure less than 5mm.
Palm Oil	A vegetable oil from oil palm trees – used in a lot of products.
Single-use plastics	Plastics that are only used once before being thrown away, e.g. plastic straws.
Sustainable	Long-lasting, meeting the needs of today without ruining the possibility for future generations.
Wilderness	An uncultivated, uninhabited, and inhospitable region.

Year 8 – Geography – Global Issues

Tourism

- Tourism has increased with globalisation.
- The introduction of low-cost airlines (e.g. Easy Jet) has led to more accessible transportation.
- People now have more annual leave (time off work) than they did in the 1950s.

- People have a higher disposable income so they have more money to spend after the essentials.
- However, increased tourism can have negative impacts on areas.
- such as pollution (waste, noise, and air),
- increased strain on services, and
- influencing culture.

- Eco-tourism is a sustainable method of tourism designed to limit damage and disruption to the environment.

Tourism in Thailand

- Thailand is in south-east Asia and is found between the Tropic of Cancer and the Equator.
- International tourist numbers have increased from 5.3million in 1990 to 38.3million in 2018.

- The increasing number of tourists have caused damage to sea life and coral reefs. Hotels have been built causing the natural habitats to be destroyed.

- The Thai government have had to make the decision to close some of the most popular beaches to help the ecosystems to recover.

Wilderness Under Threat

- Wilderness is a natural environment that has largely been undisturbed by human activity.

- Wilderness areas are important as they produce freshwater; forests absorb carbon dioxide from the air, helping reduce global warming; they are home to thousands of plant and animal species; and they provide recreational opportunities for people (e.g. hiking, fishing, kayaking).

Antarctica

- The Antarctic Treaty was signed in 1959 and came into effect in 1961. This was to prevent the exploitation of resources.

- In Antarctica there are several resources: underground stores of oil and coal, fresh water extraction from icebergs, resources from sea life, and scientific resources. There is also the potential for tourism.

- However, the treaty is there to protect Antarctica's environment from being destroyed.

Exploitation of Brazil

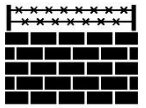
- Pantanal Region is the world's largest tropical wetland area (roughly the same size as England and Scotland).
- The region is being threatened by cattle ranching, road construction, uncontrolled tourism, gold mining, and the hunting of wildlife.

- To protect this region, Brazil and Bolivia have national parks and nature reserves which control development. Only 5% of the region is protected.
- The Amazon Rainforest is also under threat because of deforestation.

- The Amazon Rainforest is important as it supports 10% of all living things, 20% of the world's oxygen, and 17% of the world's water.
- Deforestation happens for timber, farming, and urban development. It can lead to animal extinction, increased greenhouse gases (and climate change), and flooding.

Geopolitics

- Borders are political boundaries and are not always physical barriers.



- Many borders are 'disputed' such as the Indian-Pakistani border or borders within Africa.
- Some borders can lead to conflict and violence.

- Donald Trump wants to build a wall along the US-Mexican border to stop immigration from Mexico into California. However, government policies have allowed for violence carried out by security forces.

- Countries are 'confined' by their geography, their choices limited by mountains, rivers, seas and concrete.
- Russia's landscape and surrounding environment affects the decisions that leaders make.

- From the west, Poland is a relatively narrow corridor into Russia – this is beneficial as it prevents enemies from advancing towards Moscow.
- Siberia, in the north of Russia, contains a lot of oil, gas and minerals, however, its freezing cold temperatures and permanently frozen soil (permafrost) makes these difficult to access.

- Russia's size also means that it is difficult for central governments.

Year 8 – History – The Inter-War Years 1918-39

Key Words

Armistice 	An agreement to stop fighting.
'November Criminals'	**Name given to the German leaders who agreed to the armistice ending WWI.**
Stab in the back theory 	The belief that the German army had been stabbed in the back (betrayed) by its leaders back in Germany.
The Big Three	The 3 most powerful countries after WWI (Britain, France and the USA).
Treaty 	A signed agreement after a war that both sides must sign and follow. Often designed to stop other wars.
Treaty of Versailles	The treaty signed by the countries involved in WWI. It had conditions that Germany had to follow as they had lost.
Diktat 	A German word used to describe the treaty after WWI, it means 'dictated peace'. Germany felt it had no say in how it was treated after the war.
Reparations 	Money that has to be paid by the loser of a war to the winners as a way to pay for damages caused by war.
The League of Nations	An international organisation created after WWI to encourage cooperation between nations and avoid war.
Democracy 	A way of running a country where the people vote on who will be in charge. People have many rights and are considered to be 'free'.
Dictatorship 	A country ruled by one person with absolute control/ authority. They cannot be voted out of power and the people have less everyday freedoms.
Communism 	A way of running a country where everything that is needed is owned by the government and given to people fairly as they need it.
Propaganda 	Information that is usually one sided used to promote a political cause or point of view.

Key people

- **Adolf Hitler (the leader and dictator of Germany from 1933-45)**
- **Joseph Stalin (the leader of the Soviet Union – Russia, 1922-53)**
- **Benito Mussolini (The fascist leader of Italy, 1922-43)**
- **Neville Chamberlain (The British Prime Minister, 1937-40)**

The end and impact of WWI

Impact On Germany

- WWI – Officially ended fighting on November 11th 1918 with the Armistice.
- The main winners (Britain, France and USA) decided together how the losers, mainly Germany, should be treated and how they would be punished. France wanted to severely punish Germany so it could never fight another war, USA wanted to keep Germany from being too aggressive again but didn't want to severely punish them, and Britain wanted to weaken Germany but he did not want to crush them.
- The Treaty of Versailles, 1919, stated the reparations Germany had to pay (£6600 million), that Germany must accept responsibility for causing the war, Germany would have to disarm its army, and would lose territory it had gained before and during WWI.
- Germany was angered by the treaty and called it a 'Diktat'. It felt it was unfairly punished and would never recover from the punishments put on them by the treaty.
- Eventually, Germany could not keep up with reparation payments and its money became virtually worthless. France sent troops into German territory (the Ruhr) to take coal and goods as payment which crippled German wealth further.
- The decline of Germany due to the Treaty of Versailles helped Adolf Hitler gain power in 1933. He offered the people a better future by promising them chances to work, food, and he promised to ignore the treaty of Versailles to make Germany strong again.

Impact On Britain

- 1918 – women over 30 who owned property were allowed to vote in elections. This was a huge step in changing women's lives. One reason women gained the right to vote was due to their efforts during WWI to help Britain win the war by working in munitions factories, as medics for the army and as farmers.
- Children under 14 were banned from working in mines, factories and ships, and were made to attend school.
- Unemployment increased as jobs dedicated to the war effort were no longer needed. 1/5 workers had no job by 1921.
- There were also many strikes where workers refuse to work as a protest to demand better pay and conditions.

Impact on Europe

- To avoid another war, the League of Nations was created with 40 countries joining. They aimed to work together to solve problems like disease, hunger and improve working conditions. They also promised to stop trading with any country that declared war on another.
- Success – the League of Nations successfully arranged for Poland to gain back the region of Upper Silesia which had been taken by Germany in WWI.
- Failure – Polish troops invaded Vilna (capital of Lithuania) in 1921, the League ordered Poland to leave but it refused. The League of Nations could do nothing as it didn't have its own army to pose a threat to Poland.

Year 8 – History – The Inter-War Years 1918-39

Key Words

Fascist	A person who believes the country should be ruled by one strong leader (dictator) and has strong nationalist/racist views.
Great Depression 	A period of economic (money) collapse during the 1930s where many people were poor, lost their savings and didn't have jobs.
Disarmament 	To reduce the amount of weapons/ soldiers and military equipment a country has.
Rearmament 	Allowing a country to rebuild their army, produce weapons and make military equipment,
Conscription	When it is compulsory to join the army (you must do it).
Anschluss 	The idea of Austria becoming part of Germany in a unified way.
Appeasement 	To allow someone to do something without consequences for their actions.
The Munich Agreement	An agreement between Britain, France and Germany. It briefly avoided war but gave Germany the Sudetenland territory of Czechoslovakia.
The Nazi-Soviet Pact	An agreement between Russia and Germany. Germany would invade Poland and Russia would gain part of Poland if they allowed this.

German expansion from 1937-40

The Policy of Appeasement

Background

- Under the leadership of Adolf Hitler from 1933, Germany was rebuilding as a nation.
- Hitler wanted Germany to be as strong as it was before WWI. He wanted the lands back that Germany had lost in WWI and he wanted to unite all German speaking people.
- To do this Germany needed a stronger army and more wealth…
- Germany began to build up its army, navy and air force (things which were banned by the Treaty of Versailles.

Examples of Appeasement

- In 1935, Hitler even announced to the world that he and Germany had broken the Treaty of Versailles and had produced a massive army. However, nothing happened to Germany.
- Many countries were afraid to stand up to Germany in fear of starting another war. Some countries even believed that Germany were only building their army to defend themselves and had a right to do this. So Germany were appeased and allowed to continue.
- In 1938 German troops marched through Austria and claimed it as part of Germany, many Austrians celebrated this as Hitler himself was Austrian and Germany and Austria had shared similarities for many years. Again the world did nothing to challenge this despite it breaking the Treaty of Versailles.
- 1938 Munich Agreement – Hitler wanted to take over the Sudetenland in Czechoslovakia as there were many German speaking people there. To avoid war, Britain and France agreed to give this land to Germany. This was an act of appeasement.
- In March 1939, Hitler and Germany decided to take over the rest of Czechoslovakia which showed Europe that Hitler could not be trusted. Many countries prepared for war.
- This ended the policy of appeasement. In August 1939, Hitler threatened to invade Poland and signed the Nazi Soviet Pact which planned to share the conquered territory with the Soviet Union.
- Germany invaded Poland on 1 September 1939. Neville Chamberlain did not appease Hitler this time and declared war on Germany on 3 September 1939.

Year 8 – History – The First World War

Key Words

Archduke Franz Ferdinand 	A prince and next in line to the throne of the Austro-Hungarian Empire.
Trench 	A ditch dug into the ground about 7 feet deep and 4-6 feet wide. Used to defend soldiers from enemy fire.
Artillery 	A big weapon that fired shells (bombs) from a far distance.
Recruitment 	Getting people to join or sign up for something, in this case the army.
Alliances 	Agreements made between countries to support and help each other if one is attacked in war.
Militarism 	Increasing the amount of weapons and soldiers a country has to show its strength/power.
Nationalism 	A belief of putting your country first above all others and taking great pride in your country, often thinking your country is the best.
Imperialism 	The aim of increasing a country's power/ influence through military power and trade.
Propaganda 	Information that is usually one sided used to promote a political cause or point of view.
Shell-shock	A medical illness suffered by soldiers who have often experienced horrific or traumatic events. Those with shell shock would sometimes suffer from panic attacks or uncontrollable shaking.
Conscientious Objector 	A person who refused to fight in a war because of their religious, political or moral beliefs.
Trench foot 	An injury common for soldiers in WWI, caused by continuously wet conditions that left feet rotting and becoming infected.

Who was important?

Archduke Franz Ferdinand
Lord Kitchener (in charge of recruitment)
Walter Tull (first black officer)
Kaiser Wilhelm II (ruler of Germany)
Marie Curie (treated wounded soldiers in the trenches)
General Douglas Haig (British General
Harry Farr (suffered from shell shock but was mistaken as a coward and shot)

Key causes of WWI

Long Term:

- Imperialism – Countries of Europe were competing against each other to gain more land and power around the world = increased tension.
- Nationalism – Strong beliefs in these countries led people to believe that their country was more powerful and more deserving of certain things, like land/power/resources. = rivalry between nations.
- Militarism – countries wanted to have the biggest and strongest army. = 'arms race' to develop the best army which leads to more rivalry and jealousy between countries, e.g. Germany V Britain.
- Alliances – These 'friendships' meant that some countries felt threatened by being on their own, it also meant that if two countries went to war, their allies would also be dragged into the war.

Short Term:

- Assassination of Archduke Franz Ferdinand – Murdered by a group of Serbians who wanted Bosnia to be joined with Serbia and free from the control of the powerful Austro-Hungarian Empire.
- Franz Ferdinand was killed as a show of defiance against the power hungry empire.
- The Austro-Hungarians blamed Serbia for the attack, rather than just the small group, and declared war. Serbia was allies with Russia, who came to Serbia's defence. Germany (allies with Austria-Hungary) declare war on Russia to defend Austria-Hungary. France is also allies with Russia, so Germany attack them first to try and avoid a war on two fronts. By doing this, Britain must now join the war to defend its allies (France and Belgium) from Germany. = Total war in Europe.

Recruitment

- Britain recruited an army of 1 million men within 6 months of the war beginning. These men were all volunteers who wanted to 'do their bit' for their country. However, it soon became clear that this wasn't going to be enough men!
- The armies of Europe were huge and Britain's army was far outnumbered compared to Germany, France and Russia.
- Propaganda was used to encourage men of Britain to join the army. This was mostly in the form of posters that put across the most convincing and key messages for men to join up.
- Some posters made men feel guilty for not fighting, or they made war seem like a fun adventure, or some targeted the mothers and wives of Britain to encourage their men to join the army.
- The propaganda campaign from the government was a success with 2.5 million men joining the army by 1916.
- See an example on the next page.
- Millions of men were also recruited by countries of the British Empire, such as; The West Indies, South Africa, India, Canada, Australia and New Zealand. They were often not treated as well as they deserved but Britain would never have survived as long as it did without the help of these brave soldiers from across the empire.

Year 8 – History – The First World War

An example f one propaganda poster used by Britain. It says, 'Your country needs YOU'

Trenches

- Trenches were hard to attack and easy to defend. Soldiers started digging them to defend themselves.
- Soon the two sides were stuck in a 'face off' determined to hold onto the land they had captured.
- They were a network of ditches that extended from the mountains in France all the way to the ocean in Belgium.
- Some times one side would try to capture the enemy's trench to gain ground. The foot soldiers had to climb out the trench and advance across 'no-man's land facing machine gun fire, artillery bombs and barbed wire.
- Thousands of men died each day trying to gain small amounts of land.

Conditions

- Life for soldiers was horrible – wet, muddy and freezing in winter; dry and boiling hot in the summer with small amounts of water available.
- Disease and illness was common. E.g. trench foot, lice, pneumonia.
- Some modern treatments for illnesses were developed due to the war, e.g. X-Rays, blood transfusions and triage (which managed how the wounded were treated).
- Food was basic, often plain stew with stale bread and hard biscuits. Rats often got into the food supplies and even bit the men.
- Soldiers had to keep busy by fixing parts of the trenches, keeping watch for attacks and bringing supplies to the front line.

General Haig: Butcher of the Somme?

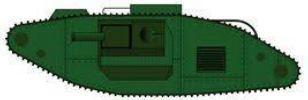
Butcher = responsible for the deaths of many people.

- Thousands of British soldiers died under his command (20,000 on day one of the Battle of the Somme).
- Haig never went to the frontline so did not understand the horrors the ordinary soldiers faced.
- He continuously tried the same battle plans that had failed many times before.
- Haig still believed that cavalry (horsemen) would be important soldiers in WWI – against Germans armed with machine guns.

- Haig understood that to win the war, many sacrifices had to be made including loss of life.
- His tactics were very common for the time and other countries suffered bigger losses.
- Soldiers had to 'go over the top' of the trenches to end the war.
- Haig did try new tactics, such as the 'creeping barrage' which helped Britain win the war.
- He pushed for Britain to use tanks at the battle of the Somme which did help bring victory once their first problems were fixed.
- Haig and his army did play a major role in defeating Germany and their allies.

Weapons

- The most common injury was caused by artillery bombs – either from the explosion or from shrapnel (small shards of metal) that flew off the shell once it exploded.
- Most soldiers fought with a rifle that fired a single shot, with a bolt that was pulled to load the next bullet in the magazine. They were relatively slow but trained soldiers could fire 20 bullets per minute.
- German trenches were heavily defended by many machine guns which could fire 300 bullets per minute.
- Gas attacks were used with mixed results. The first attack caused a mass panic amongst the French soldiers, but the gas was hard to control due to changing wind direction and later in the war most soldiers had gas masks to survive the attacks.
- Tanks were used for the first time in war in 1916. They were very slow, easily broke down and did not have big heavy guns like today's. They were bulletproof, could travel over the rough ground of the trenches, and take out barbed wire for the foot soldiers to follow behind.
- Planes – mostly used to spy on the enemy trench and to see where artillery attacks might come from. They later carried basic weapons like bricks and pistols. Eventually, machine guns were mounted on the front to shoot down enemy planes.



A WWI tank invented by the British.

Year 8 – PRE – Term 3: Can religion contribute to a more equal society?

Key words

Equality: Having the same rights in status and opportunities among members of a given society/group.
Inequality: Having unequal and/or unjust rights and opportunities among members of a given society/group.
Bible: Christian Holy book
Parable: A story with a meaning or moral.
Prejudice: Making a biased opinion of someone that is not based on reason or actual experience.
Segregation: The action or state of setting someone or something apart from others.
Racism: Acting upon prejudice thoughts , against an individual or community, on the basis of their racial or ethnic group.
Tolerance: The quality of allowing other people to say and do as they like, even if you do not agree or approve of it.
Gurdwara: The place where Sikhs come together for congregational worship.
Guru Granth Sahib: Sikh holy building
Langar: Free kitchen in the gurdwara
Sewa: Selfless service with no reward.
Qur'an: Muslim holy book

What do Christians teach about equality?

- The Bible teaches that humans are made in **'the image of God'** (Genesis 1:27) and so **all humans matter equally to God** regardless of race, colour, gender, age, ability and wealth.
  - Christians believe that anyone who accepts Jesus in their life and prays to God will have their prayers heard **without favouritism.**
  - Christians believe that humans should follow Jesus's example and also treat people equally. This is shown in the **Parable of the Good Samaritan.**
- The Bible also teaches to **'love your neighbour as you love yourself'** (Luke 10:27) meaning that all human beings should treat people with the same respect as they want to be treated with.

What does Islam teach about equality?

- The Qur'an teaches that **all people were created equally by Allah**.
- No race can claim to be superior/more important to another.
- The Prophet Muhammad also taught that everyone is equal and the only thing that separates one person from another is their **good/bad actions.**
- Tolerance towards non-Muslims within Islamic societies stems from the Prophet Muhammad's teaching that all 'People of the Book' should be treated with respect.

Martin Luther King 1929-1968

- He was a Christian
- He experienced racism as a child
- He led the Montgomery Bus Boycott in 1955 which lasted for 381 days
- He received a **Nobel Peace Prize** for his work against racism & segregation
- In 1963 he delivered his famous **'I have a dream speech'** which called for change regarding the way people were being treated based on the colour of their skin

Malala Yousefzai 1997- Present

- She is a Muslim
- Fought for females to have the **right to education** in Pakistan
- Got shot by the Taliban for her work
- Gave a speech on her 16th birthday at the United Nations headquarters
- Contributed money to **help build a girls' school in Pakistan**

How does sewa promote equality?

Sewa means '**selfless service**'. It involves acting selflessly and helping others in a variety of ways, without any reward or personal gain. Many Sikhs take part in sewa to build relationships with God and to demonstrate the belief in equality and the importance of all people

Can Christianity cause inequality?

- The Bible has some teachings that can lead to the theme of inequality, in particular gender inequality.
- A quote found in the Bible that portrays the inequality of women is **'For man was not made from woman, but woman from man.** Neither was man created for woman, but woman for man.'
- There are also references to the term 'man' in the Bible to describe humankind as a whole. This leads to the questioning of the role of women within the Bible.

Can Islam cause inequality?

- Just like Christianity, Islam can leave the question of inequality between genders.
- The Qur'an **states 'The male is in charge of the female'.**
- 'A woman cannot fulfil her duties towards God without first having accomplished those that she owes her husband.'
- These teachings from holy books can lead to the questioning of inequality within religion.

What does Sikhism teach about equality?

- Sikhs believe that there is one God and that everyone is equal who stands before him.
- Sikhs believe in the **oneness of humanity** and this is highlighted through their actions within the gurdwara and the local community.
- Sikhs take part in Sewa which is doing good deeds with no reward. This may include giving to charity, feeding the homeless, volunteering in the Langar, cleaning litter of the streets.
- Sikhs also have the surname Singh (lion) and Kaur (princess) which highlights the aspects of equality with **all Sikhs having the same surname.**
- The Guru Granth Sahib teaches **'All are made of the same clay'** which means all are made by God and therefore should be treated equally.

How does the langar promote a more equal society?

- The langar is **a special community kitchen** connected to the gurdwara.
- It provides a **free, simple meal for anyone** who would like one – whatever their religion or position in society.
- The meal is always **vegetarian** so that most visitors will be able to eat and share their hospitality.
- There is also a room in the gurdwara where members of the community gather to carry out **charity work** for the local area or world wide aid.
- In times of emergency, Sikhs have distributed the langar to those who have needed it the most. For example, during the Coronavirus pandemic, many gurdwaras used their langar kitchens to feed NHS workers and those most in need.