Knowledge Organisers
Spring Term – Year 7

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!

Contents Page

Year 7 – English – A Midsummer Night's Dream

William Shakespeare (the playwright)

The play was written by William Shakespeare in 1595.

Shakespeare was born in Stratford-upon-Avon to a father who was a glove maker.

Shakespeare wrote plays and poems.

Shakespeare went to a grammar school where he was taught Ancient Greek.

Grammar schools were very strict and students had to work hard. The school day would usually start at six in the morning and continue to five in the evening. Students also had to go to school six days a week.

As someone educated in different cultures, he was able to write about imaginative places his audience would never see.

The Elizabethan Era (the time when the play was written)

The Elizabethan Era was the period in English history from 1558 –1603 when Queen Elizabeth I was in charge of England.

Elizabeth 1st was Queen. She decided not to get married which many people disagreed with as they thought a Queen should have a King. It was also expected for a female royal to marry a foreign royal to create ties.

Life of a normal person

- Groundlings were poor people who watched plays in Elizabethan England,
- Groundlings would have horrible jobs, including shifting waste across the city,
- The poor enjoyed bear baiting (this was a cruel sport where bears would fight other animals), gambling and the theatre for entertainment,
- There was a large difference between the rich and poor in Elizabethan England,
- Life could be severe (a) for groundlings,
- And many Elizabethans believed in and feared magic.

Ancient Athens (the time the play was set)

The play is set in Ancient Greece.

Athens, for a long time, was considered the centre of education and culture. In Shakespeare's time, classic tales from hundreds of years ago were being reused for entertainment.

This made Athens a perfect setting. Athens was known all around the world for its wealth and grand buildings.
In Ancient Athens, there were very severe (a) punishments for people who broke the rules.

Cupid is the ancient god of love. He is usually presented as a baby whose arrows make people fall in love.

The Love Potion

The love potion is created from a very rare **flower** in the forest, it became magical because Cupid hit it with his arrow. The love potion is extremely powerful.

It can be used to make a sleeping person fall in love with the first person they see upon waking. In the play the potion causes chaos (f).

Key Quotations

Demetrius to Helena:

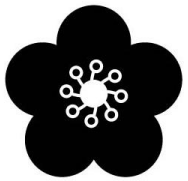
"I am sick when I do look on thee."

Helena to Demetrius:

"Use me but as your spaniel."

Lysander:

"The course of true love never did run smooth."



Oberon to Puck:

"Before milk-white, now purple with love's wound."

Hermia to Helena:

"… scratch out your eyes with my nails!"

Hermia to Helena:

"You thief of love!"

Year 7 – English – A Midsummer Night's Dream

Characters	
Demetrius wants marry Hermia and is disgusted by Helena's love for him.	**Helena is** Hermia's friend who is desperately in love with Demetrius.
Lysander is in love with Hermia and runs away to the forest with her.	**Oberon** is the king of the fairies who controls the love potion.
Hermia is Egeus's daughter who is in love with Lysander. Friends with Helena.	**Titania** is the fierce Queen of the fairies who falls in love with Bottom when the love potion is put on her.
Egeus is Hermia's stubborn father who wants her to marry Demetrius or be put to death.	**Puck** is Oberon's mischievous servant who puts the potion on peoples eyes.
Theseus and Hippolyta **Theseus is** the Duke of Athens. He is a strong and strict ruler of the city. **Hippolyta is** Theseus's bride. She is a fearless warrior.	**Bottom** is a weaver and actor who has his head turned into a donkey. Titania falls in love with him when she is under the love potion's influence.

Plot Summary

Act 1:
Hermia and Lysander are in love, but Hermia's father, Egeus, will not let them get married so they decide to run away to the forest. Demetrius wants to marry Hermia but Helena loves Demetrius. Hermia wants to run away and Lysander even though her father has forbid (h) it. They follow Hermia and Lysander into the forest.

Act 2:
In the forest, Oberon and Titania are arguing. Oberon sees Demetrius and Helena arguing and commands Puck to use a potion on the Athenian man to make him fall in love with Helena. However, the first Athenian man Puck sees is Lysander, so he puts the love potion on him. Lysander falls madly in love with Helena.

Act 3:
Puck sees Bottom in the forest and transformed his head into a donkey's head. Puck put the love potion on Titania, who falls in love with Bottom. Puck put the love potion on Demetrius so that he falls in love with Helena. As a result, both men love Helena, so there is chaos (f). Helena and Hermia fight. Puck eventually drops a herb in Lysander's eyes to put him back to normal.

Act 4:
Oberon finds Titania and Bottom and decides that he has had enough fun **'inverted comma. Puck drops a herb in her eyes, she wakes and leaves with Oberon.'**

Act 5:
The lovers, Lysander, Hermia, Demetrius and Helena, return to Athens where Bottom and the other actors perform their play at the wedding of the three happy couples: Theseus and Hippolyta, Lysander and Hermia and Demetrius and Helena.

How to write a Mastery paragraph:

- ❑ Write a topic sentence which:
  - Answers the question
  - Focuses on one thing
  - Is accurate
- ❑ Introduce and provide an appropriate quotation.
- ❑ Explain what this quotation reveals about the theme or character who is speaking or who they are speaking about.
- ❑ Directly link to question (e.g. Comment on whether it shows the love potion in a negative or positive light).

Explore how a reader/an audience would react to this – is it meant to be funny, shocking, surprising, ridiculous…?

Key Terminology

(a) Severe – very strict or harsh
(b) Soliloquy -a speech in a play that the character speaks to the audience, rather than to the other characters
(c) Conflict – a serious disagreement, battle or struggle between two sides or ideas
(d) Unrequited love – if a person loves someone who doesn't love them back, the person's love is unrequited
(e) To mock – to make fun of someone
(f) Chaos – a situation where there is no order and everyone is confused
(g) To resolve – to solve a problem or difficulty
(h) Forbid – to not allow someone to do something

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:

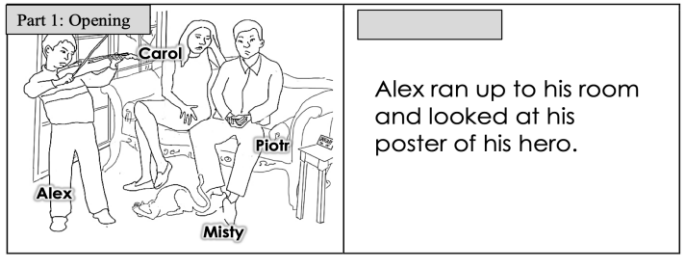
- Words like **was and were are verbs** even if they don't look like verbs (l). They are the verb "to be".

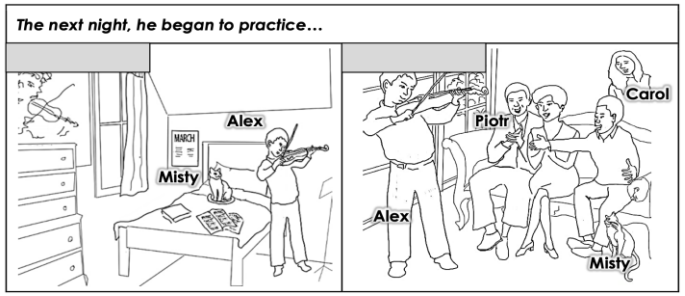
A singular subject (n) should use 'was' as in 'I was going to the shops.' A **plural (o) subject involves more than one person or thing** and should have 'were' as in 'We were going to the shops.'

Year 7 – 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 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.

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

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

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

I have **solved the problem**.

I have used **complex sentences** (d) 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.

	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**	Men being dominant in society.
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.

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.

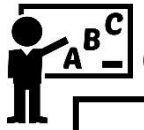
Tense rules:

- 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.

Year 7 – English – Mastery Writing 2 – Story Writing Model Example.

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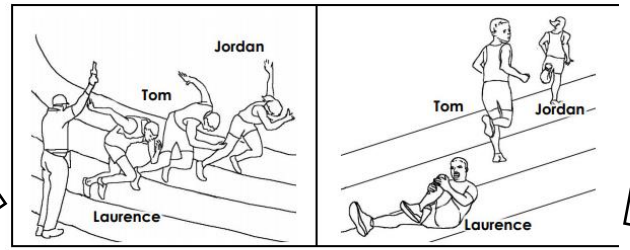

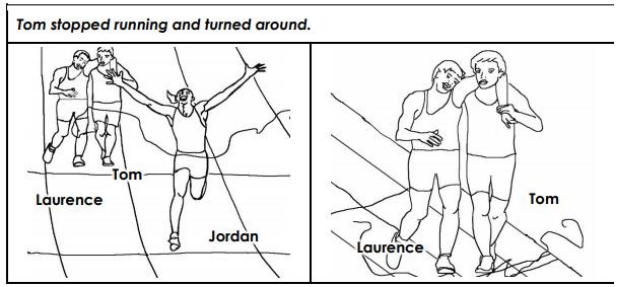

I have **inferred** p) from the four boxes what the most likely set of events are and will write them into a story.

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.

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F	**Inverted commas**	The punctuation which indicates when speech has happened. " and ".
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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 7 – Maths – Mastery: Unit 7 – Angles

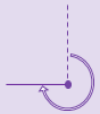
Measuring Turn

One way that we can interpret an angle is as a measure of **turn**.
How many degrees has the line segment turned through in each case?

360°
(a full turn anticlockwise)

90°
(A quarter turn anti-clockwise)

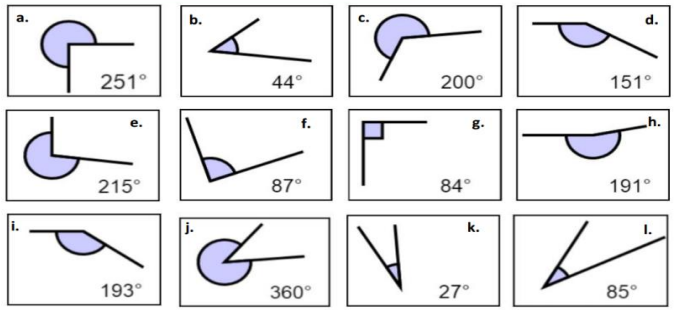
180°
a half turn clockwise



270°
clockwise
(Three quarters of a turn clockwise)

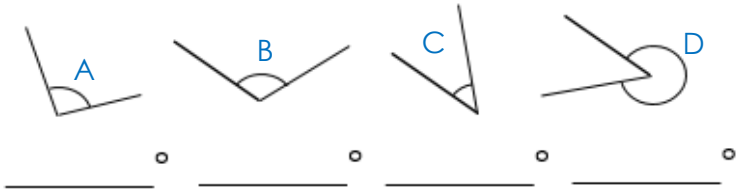
incorrectly estimated?

Which of these angles have been incorrectly estimated?



Write the incorrect estimations here: ___ ___ ___ ___ ___ ___

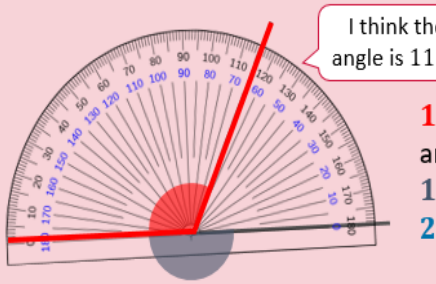
Comparing Angles



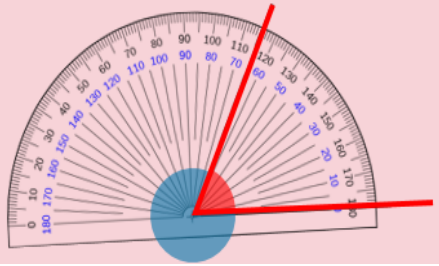
Estimate the size of each angle.
What type of angle is each?
Which is the smallest angle?
Place them in order of size.

Measurement Mistakes

Take care when measuring angles with a **protractor** - make sure you read the scale starting at zero.



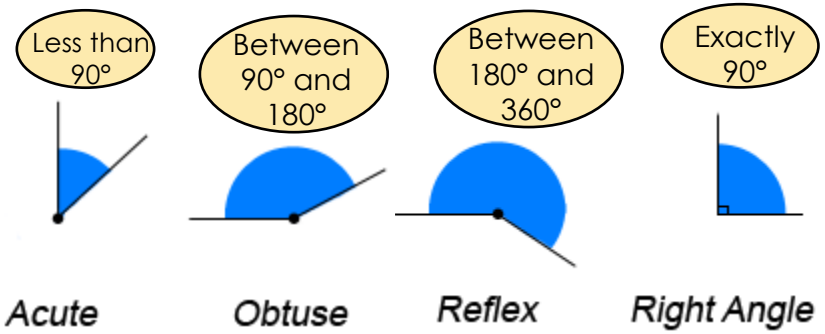
115° is the size of this obtuse angle. You can add an additional **180°**. The correct answer is **295°**.



65° is the size of this acute angle. You can subtract **65°** from 360°. The correct answer is **295°**.

Types of Angles

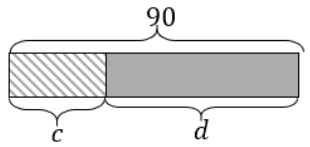
Deciding which type of angle you have helps when estimating its size and also helps you make sure you measured it correctly.

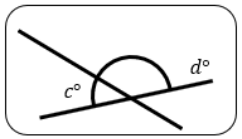


Partitioning known angles

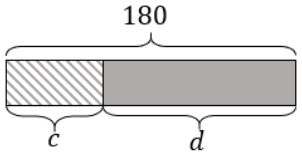
Connect each equation to the bar model and image.

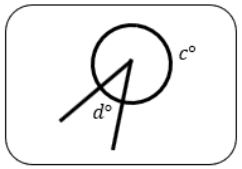
$c + d = 360$



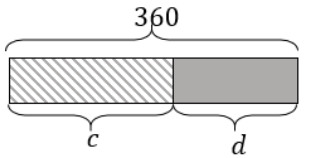


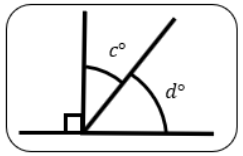
$90 - c = d$





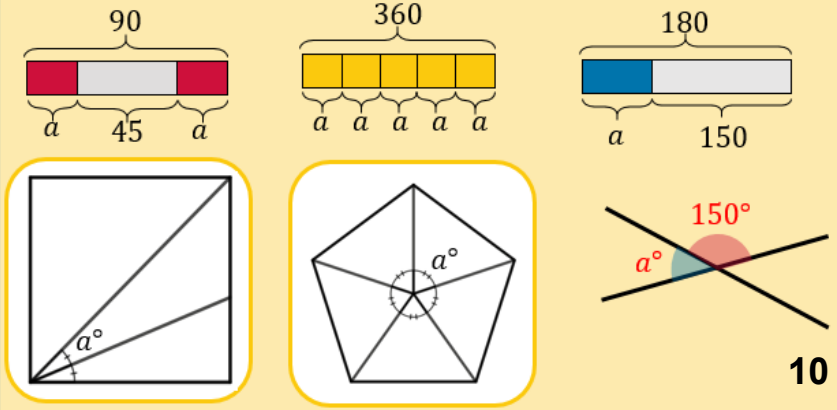
$180 = c + d$





You need to know that:
Angles that meet on a straight line sum to 180 °
Angles that meet at a point sum to 360 °

Making connections



Year 7 – Maths – Mastery: Unit 7 – Angles

parallel lines

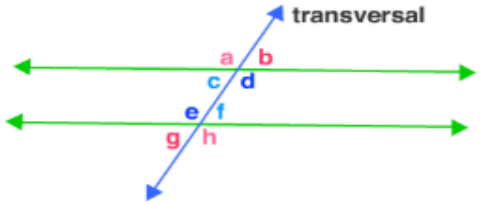
- lines that are always an equal distance apart.
- coplanar lines that do not intersect.

EXAMPLES:

parallel lines

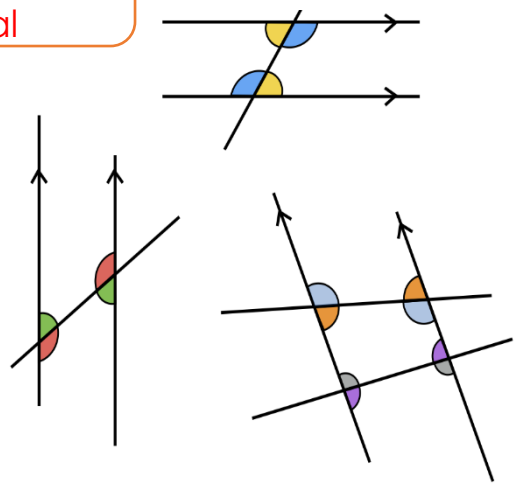
Parallel lines are equidistant, always the same distance apart … never touching

angles created by a transversal intersecting parallel lines



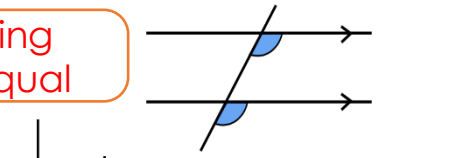
Intersection Points

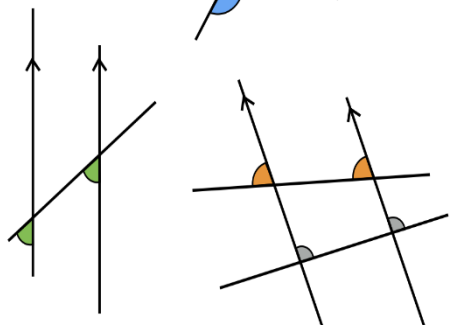
Alternate angles are equal



Pairs of alternate angles are shown in the same colour.

Corresponding angles are equal

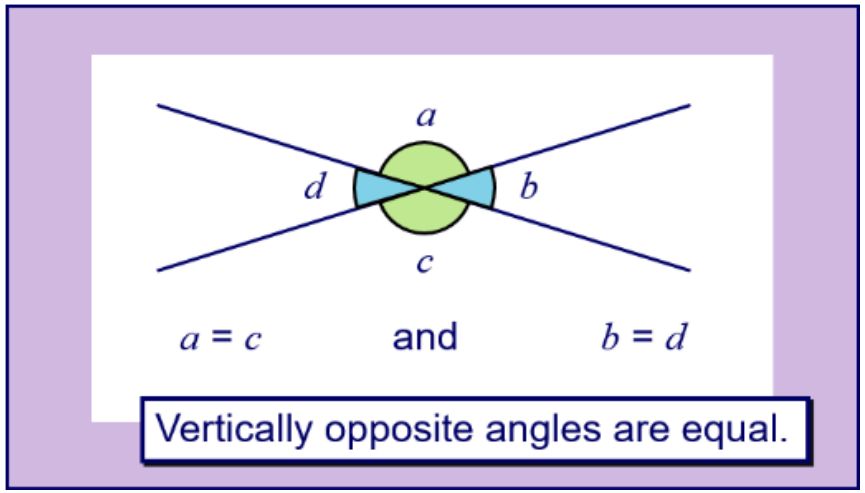




Pairs of corresponding angles are shown in the same colour.

Vertically Opposite Angles

When two straight lines intersect, two pairs of vertically opposite angles are formed.



Other Topics/Units this could appear in:

Working Towards:

Unit 5 – properties of shapes and simple angle facts

Unit 8 – mensuration

Crossover:

Unit 36 – Alternate & corresponding angles and applying other known angle facts.

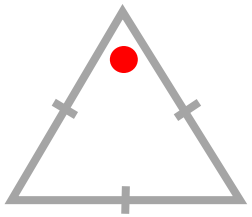
Unit 37 – Interior and exterior angles of polygons.

Keyword/Skill	**Definition/Tips**
Angle	The amount of turn between two rays called arms meeting at a common point called vertex.
Vertically opposite	Pair of angles directly opposite to each other, formed by intersection of straight lines.
Reflex	Any angle that measures more than 180 degrees but less than 360 degrees.
Parallel	Equidistant lines, that is, exactly the same distance apart and never touching.
Partitioning	A strategy that splits numbers into smaller addends, factors or place value to make calculation easier.
Perpendicular	Meeting or crossing at a right angle.
Protractor	An instrument used to measure angles in degrees.
Adjacent Angles	Angles immediately next to each other.
Degrees	The unit of measuring the size of an angle.
Acute	Any angle that measures less than 90 degrees.
Obtuse	Any angle that measures between 90 degrees and 180 degrees.
Right angle	Any angle that measures exactly 90 degrees.

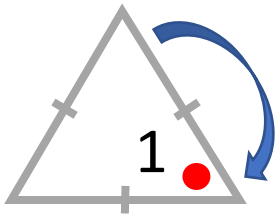
Year 7 Maths – Mastery: Unit 8 – Classifying 2D shapes

Rotational Symmetry

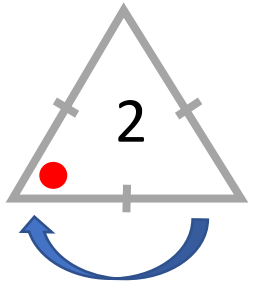
If a shape has rotational symmetry of order 1, then we say that it has **no rotational symmetry**

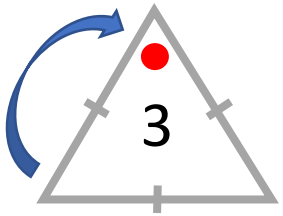


Draw around the shape on tracing paper. Do not start counting when the shape is in the original position.



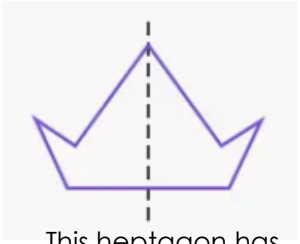
Rotate the image and count how many times the image fits exactly onto the object in one complete rotation.



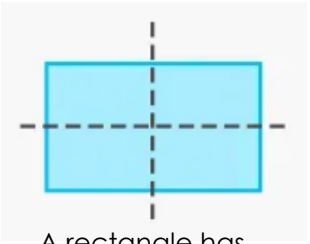


The equilateral triangle has a rational symmetry of **order 3**. This is because it fits on itself 3 times in one complete rotation.

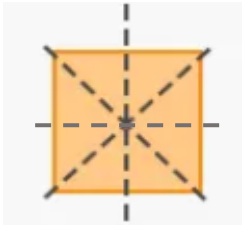
Reflective Symmetry



This heptagon has **1 line of symmetry.**



A rectangle has **2 lines of symmetry.**

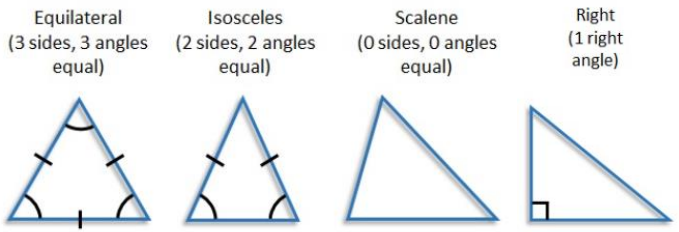


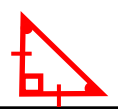
A square has **4 lines of symmetry.**

- Lines of symmetry can be vertical, horizontal or diagonal.
- The line of symmetry is also called the **mirror line** or the axis of symmetry.
- A circle has infinite lines of symmetry.
- The lines of symmetry on a shape intersect (cross) at a point.

Make sure that you find **all** the lines of symmetry to answer a question.

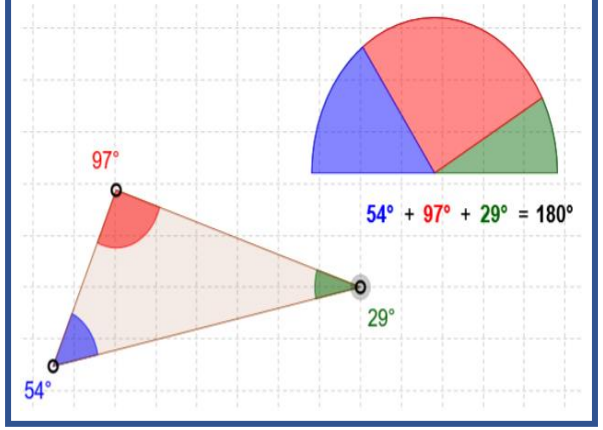
Properties of Triangles



	Scalene	Isosceles	Equilateral
Has a right angle			Impossible as all angles are 60°
No right angle			

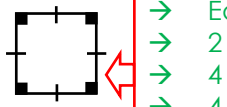
Keyword/Skill	Definition/Tips
Rotational Symmetry	Looks at how many times an image looks exactly the same in a complete turn.
Order	The number of times an object fits over its own image in one complete turn
Reflective symmetry	The reflected shape will be exactly the same as the original, the same distance from the mirror line and the same size.
Line of symmetry	The line that cuts a shape in half exactly.
Scalene triangle	Triangle where the three sides are different lengths and the angles are all different sizes.
Equilateral triangle	Triangle where all three sides are equal length and all angles are equal.
Isosceles triangle	Triangle with two sides of equal length and two equal angles.
Right-angle triangle	Triangle where one of its angles is a right-angle.
Angle	A measure of turn with the units being degrees

Angles in a triangle sum to 180

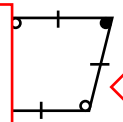


Year 7 – Maths – Mastery: Unit 8 – Classifying 2D shapes

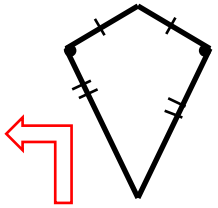
Comparing Quadrilaterals



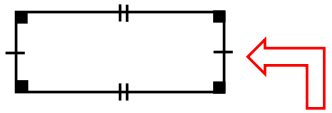
Square
- → Equal sides
- → 2 pairs of Parallel sides
- → 4 right-angles
- → 4 lines of symmetry



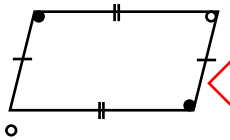
Rhombus
- → Equal length sides
- → 2 pairs of parallel
- → Opposite angles equal
- → 2 lines of symmetry



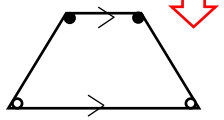
Kite
- → 2 pairs of equal length adjacent sides
- → One pair of equal angles
- → One line of symmetry



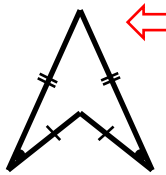
Rectangle
- → 2 pairs of equal length sides
- → 2 pairs of Parallel sides
- → 4 right-angles
- → 2 lines of symmetry



Parallelogram
- → 2 pairs of equal sides
- → Opposite sides parallel
- → Opposite angles equal



Trapezium
- → 1 pair of parallel sides

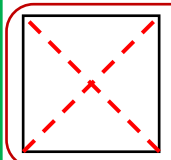


Delta (Arrowhead)
- → Contains a reflex angle
- → Adjacent sides are equal length
- → One line of symmetry

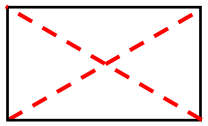
Diagonals in Quadrilaterals

Diagonals information is in red

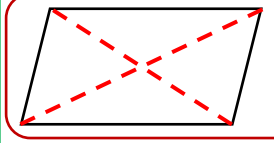
Order of rotational symmetry is in blue



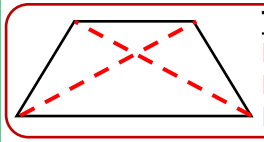
Square
Bisect
Perpendicular
Order 4



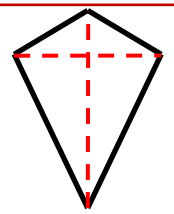
Rectangle
Bisect
NOT perpendicular
Order 2



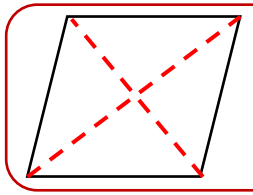
Parallelogram
Bisect
NOT perpendicular
Order 2



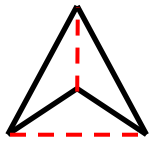
Trapezium
DO NOT Bisect
NOT perpendicular
No rotational symmetry



Kite
DO NOT Bisect
Perpendicular
No rotational symmetry

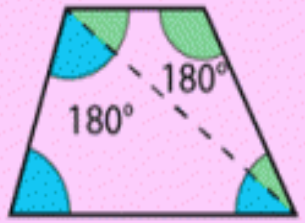


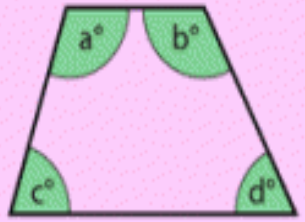
Rhombus
Bisect
Perpendicular
Order 2



Arrowhead (Delta)
DO NOT intersect
No rotational symmetry

Angles in a Quadrilateral





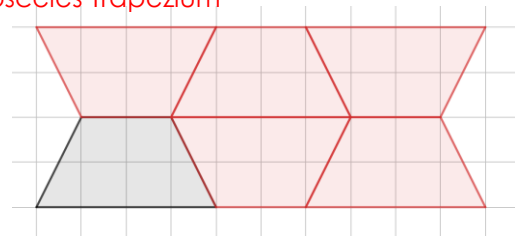
$a° + b° + c° + d° = 360$

Keyword/Skill	Definition/Tips
Quadrilateral	Any 2-dimensional four sided shape
Diagonal	Created by joining opposite corner with a line (in a quadrilateral)
Vertex	Corner
Parallel	Lines side by side that are always the same distance apart and never meet
Perpendicular	Meet at a right-angle
Adjacent	Next to
Intersect	Cross – usually referring to lines
Bisect	Cut exactly in half
Opposite	Situated on the other side
Reflex angle	Bigger than 180° and smaller than 360°
Congruent	Exactly the same size and shape
Pair	A set of two

Tessellation

A shape tessellates if it fits together without any gaps. (Like tiling)

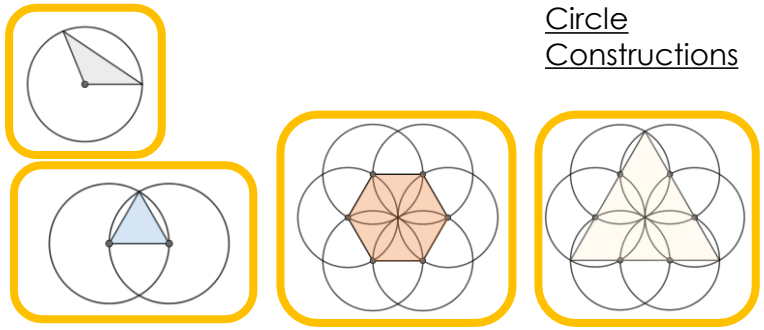
Isosceles Trapezium



Other topic/units this could appear in:
Angles in Polygons, Transformations, Solving problems involving angles,

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

Circle Constructions

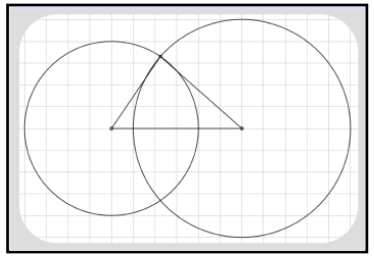


By drawing circles, you can **construct** various **polygons**.

Constructing Triangles – given 3 side lengths

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

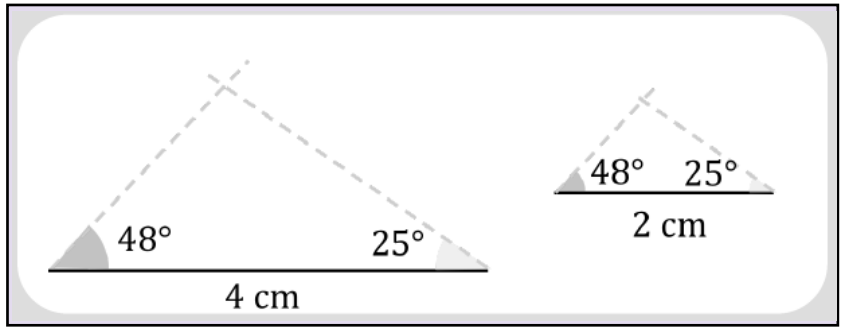
This triangle has side lengths 6cm, 5cm and 4 cm.
The 6cm line was drawn with a ruler. Then circles with radii 5cm and 4cm were constructed at either end of the 6cm line.
The intersection points show where the other vertex should be.



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

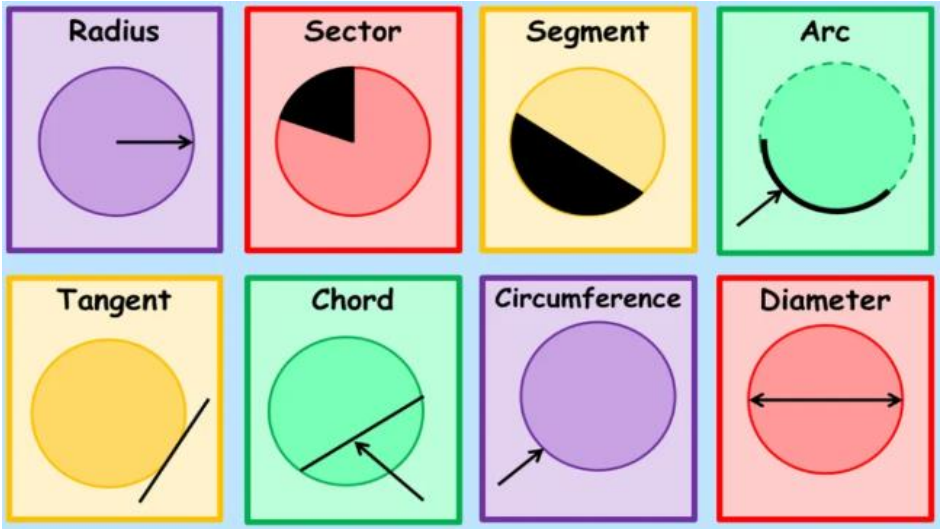
These triangles both have interior angles of 48° and 25° but the side lengths are different.
Draw the side in between the two angles first; sometimes this is given to you in the question. Then measure the angles from each end of the line – make sure the protractor is lined up correctly!
Extend your construction 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.

Constructing Triangles – given 2 angles



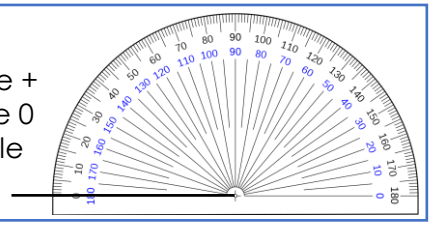
You need to know these parts of a circle:

Circle Properties



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.



Other Topics/Units this could appear in:

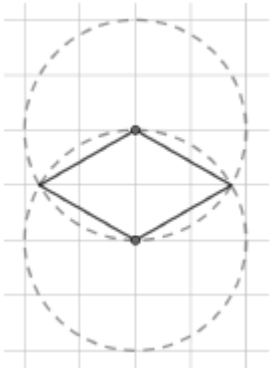
Year 9/10:
- Unit 8 – Mensuration
- Unit 43 – Constructions
- Unit 35 – Bearings
- Unit 37 – Interior and exterior angles

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

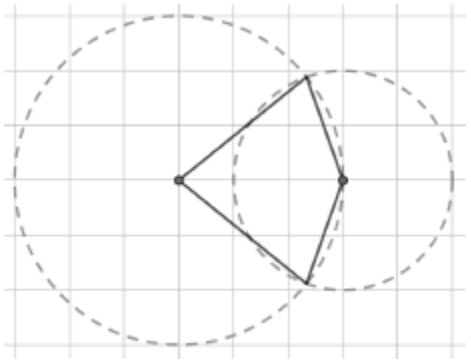
Constructing Quadrilaterals

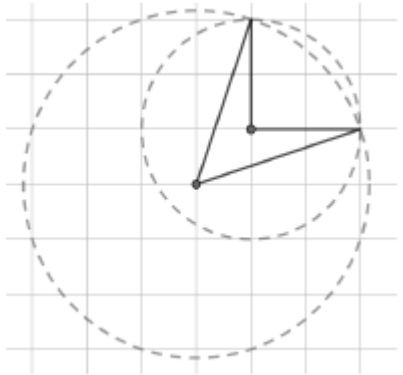
Using **ruler**, **compasses** and **protractor**, you can **construct** any quadrilateral, using the skills you learnt when constructing triangles.



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

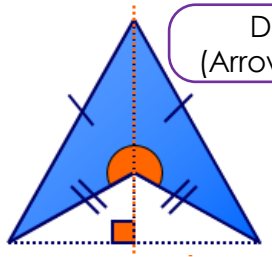
Two intersecting circles with different radii will form a **kite** when you join the radii to the intersection points on the circumferences.



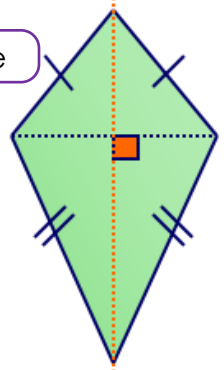


Two overlapping circles with different radii will form a **delta** when you join the radii to the intersection points on the circumferences.

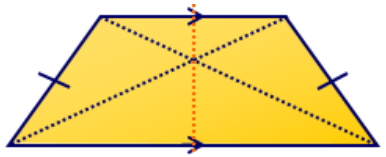
Quadrilaterals – Names and Properties



Delta (Arrowhead)

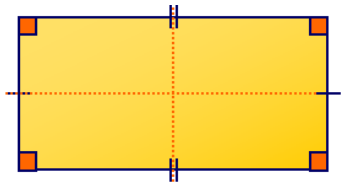


Kite



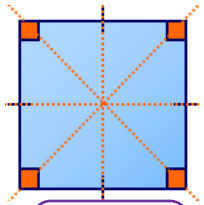
Isosceles Trapezium

Trapezium

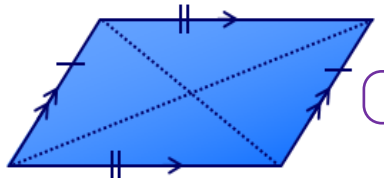


Rectangle

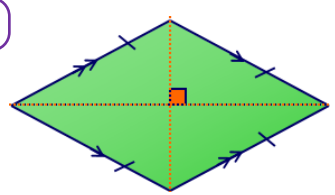
You need to recognise these **quadrilaterals**, and know their **properties**.



Square



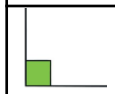
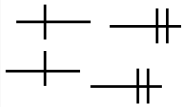
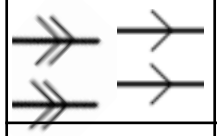
Parallelogram

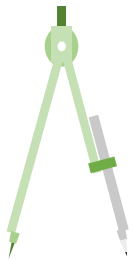


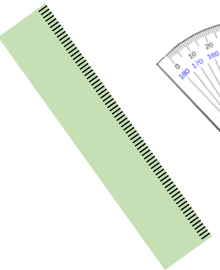
Rhombus

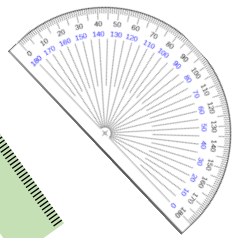
Other Topics/Units this could appear in:

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.



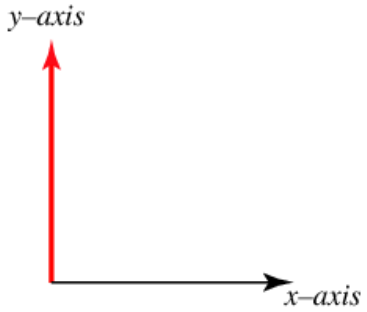


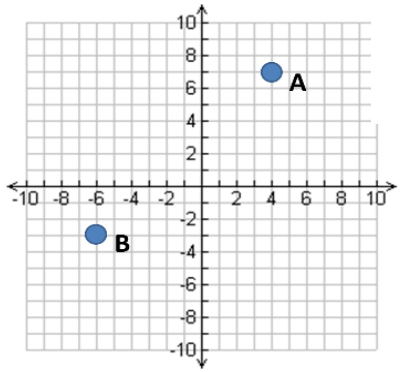


Year 7 – Maths – Mastery: Unit 10 – Coordinates

Coordinates

The y axis is the vertical line and the x axis is the horizontal line

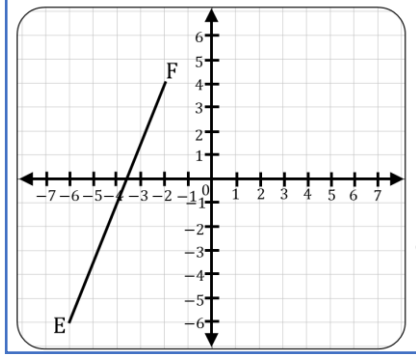




Written in **pairs as (x, y)**. The **first** term is the **x-coordinate** (movement **left or right**). The **second** term is the **y-coordinate** (movement **up or down**)

A (4, 7) B (-6, -3)

Line Segment

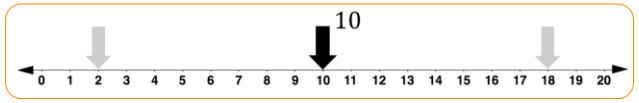


A **line segment** is the portion of a line that connects two points.

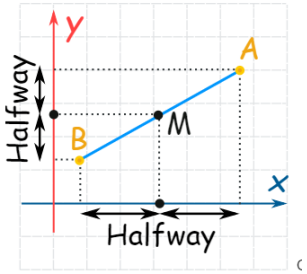
e.g. here the line segment is between E and F

Midpoint

The midpoint of a line is the coordinate **halfway** along the line segment

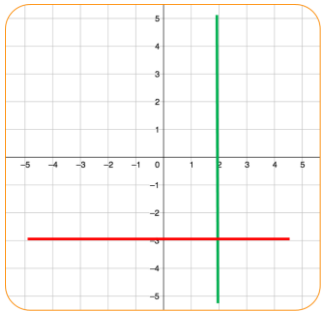


To find the midpoint of a number line, you can count halfway.



To find the midpoint of the line segment, you can find half way along the y axis and half way along the x axis.

Equation of a Line



Every point on the **red** line has a x-coordinate of -3.
The line has the equation $x = -3$

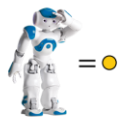
Every point on the **green** line has a y-coordinate of 2.
The line has the equation $y = 2$

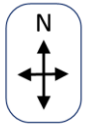
Directional Code in 2D

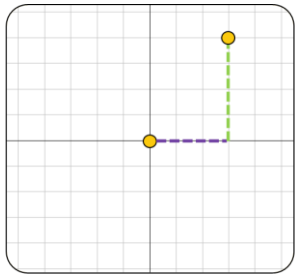
A robot can been coded using **two pieces** of code from the list of four:

<north( )> <south( )> <east( )> <west( )>

<east(3)> <north(4)>

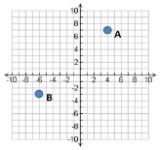
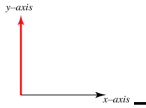






Other Topics/Units this could appear in:

- Straight-line Graphs
- Transformations
- Similarity and Congruence in 2D
- Coordinate Geometry

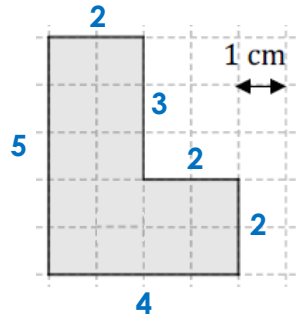
Keyword/Skill	Definition/Tips
Coordinate 	Written in **pairs** as (x, y). The **first** term is the **x-coordinate** (movement **left or right**). The **second** term is the **y-coordinate** (movement **up or down**)
Axis/Axes 	The lines that make up a graph. The y axis is the vertical line. The x axis is the horizontal line.
X-coordinate	This is the first term written in a coordinate, it represents where the coordinate is on the x axis (x, y)
Y-coordinate	This is the second term written in a coordinate, it represents where the coordinate is on the y axis (x, y)
Origin	The very middle of a graph, the coordinate of (0,0)
Line segment	A **line segment** is the portion of a line that connects two points.
Midpoint	The coordinate or point that is exactly in the middle of a line or line segment.
Directional 2D code	A set of directions for a robot, going from one point to another.
Equidistant	Equal distance i.e. two lines or points can be equidistant (an equal distance) from the origin.

Year 7 – Maths – Mastery: Unit 11 – Area and Perimeter of 2D Shapes

Perimeter

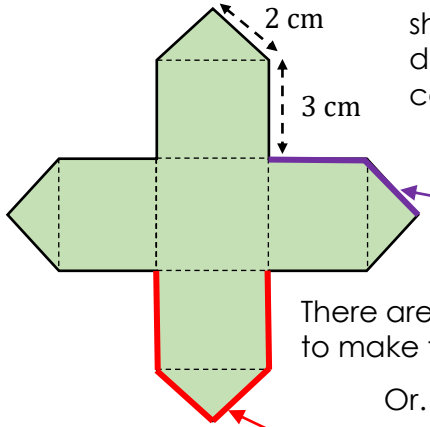
Perimeter is the **distance** all the way around the **edge** of a shape.

By **counting edges** of **squares** along the **sides** of a shape on a grid, we can work out the perimeter of that shape.



The perimeter of this L shape is 2 + 3 + 2 + 2 + 4 + 5 = 18 cm

For more complicated shapes, we can use different strategies to calculate the perimeter.



$8 \times (2 + 3)$ cm

There are 8 lots of 2cm + 3cm to make the whole perimeter.

Or…

$4 \times (2 + 2 + 3 + 3)$ cm

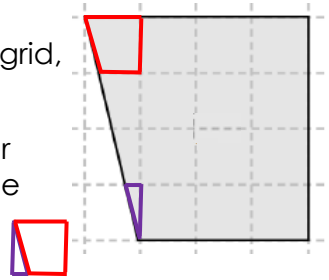
There are 4 lots of 2cm + 2cm + 3cm + 3cm to make the whole perimeter.

Area – counting squares

Area is the amount of **space** inside a shape.

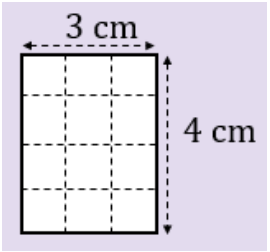
By **counting squares inside** a shape on a grid, we can work out the **area** of that shape.

For part squares, we can put these together to create whole squares. The purple triangle can be counted with the red trapezium to form a whole square.



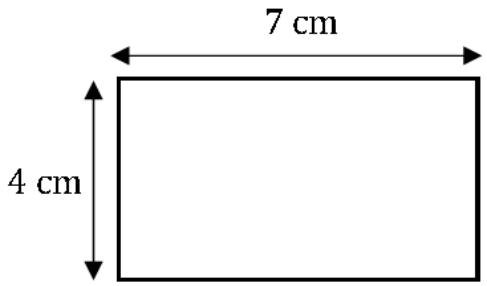
Area of a rectangle

We can calculate the area of a rectangle by multiplying:



There are four rows, with three squares in each row. $4 \times 3 = 12$ so the area is $12\ cm^2$

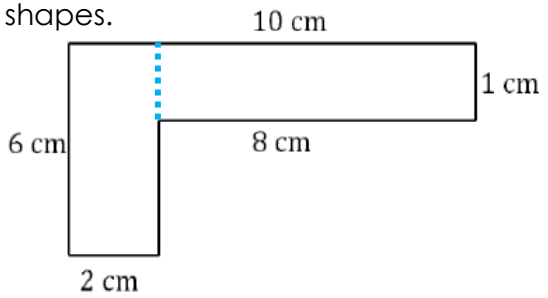
There are four rows, with seven squares in each row. $4 \times 7 = 28$ so the area is $28\ cm^2$



Compound Shapes

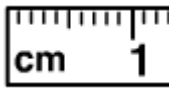
By splitting compound shapes into simple shapes, we can find the total area by adding the areas of the simple shapes.

There are two rectangles: 8 x 1 and 2 x 6, so the total area is 8 + 12 = 20 cm^2



Other Topics/Units this could appear in:

- Perimeter and Area
- Plans and Elevations
- Surface Area and Volume

Keyword/Skill	Definition/Tips
Perimeter	Distance around the edge of a shape. Start and finish at the same point.
Area	The amount of space inside a shape. Measured in square units, such as cm^2, mm^2, m^2 …
Compound	Where more than one shape have been stuck together to form a new shape.
Centimetre 	Metric unit of measurement for lengths.
Millimetre 	Smaller unit of measurement than centimetres. 1cm = 10mm
Metre	Larger unit of measurement than centimetres. A door is about 2m tall. 100cm = 1m
Kilometre	Larger unit of measurement, usually used for distances between towns and cities in Europe. (The UK uses miles) 1000m = 1km

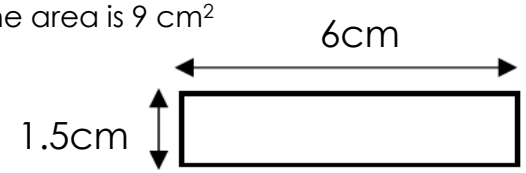
Year 7 – Maths – Mastery: Unit 11 – Area and Perimeter of 2D Shapes

Area of a Rectangle

The **area** of a **rectangle** is calculated by multiplying the **length** by the **width**.

Area of rectangle = length × width

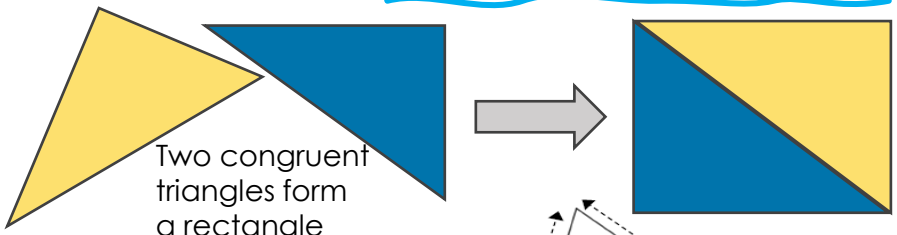
The length is 6cm, the height is 1.5cm.
6 × 1.5 = 9 so the area is 9 cm²



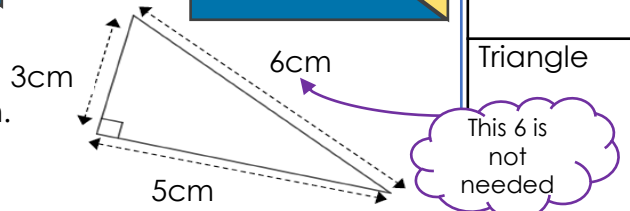
Area of a triangle

The **area** of a **triangle** is calculated by multiplying the **height** by the **base**, then **dividing by 2**.

Area of triangle = $\frac{\text{height} \times \text{base}}{2}$



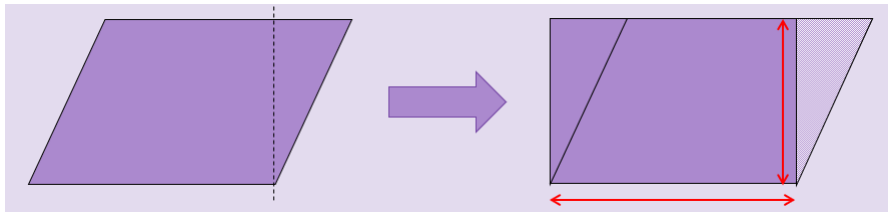
The height is 3cm, the base is 5cm.
$\frac{3 \times 5}{2}$ = 7.5 so the area is 7.5 cm²



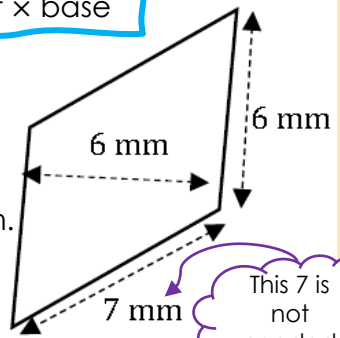
Area of a parallelogram

The **area** of a **parallelogram** is calculated by multiplying the **perpendicular height** by the **base**.

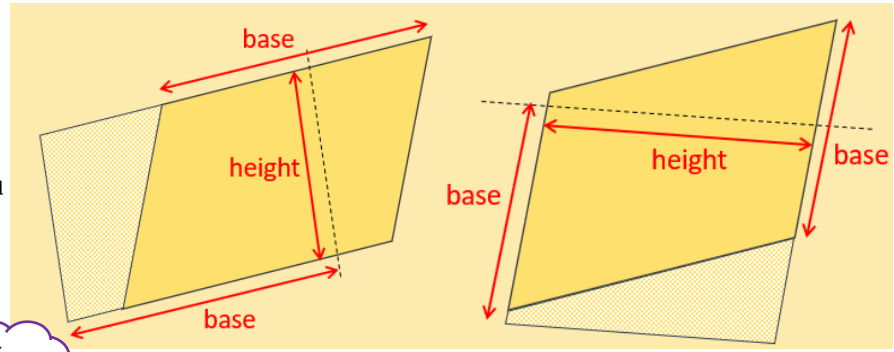
A parallelogram can be split and rearranged to form a rectangle



Area of parallelogram = height × base



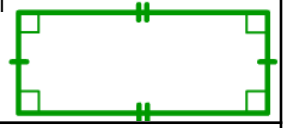
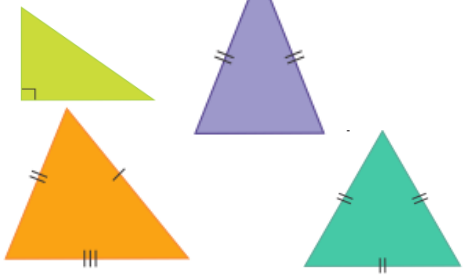
The height is 6cm, the base is 6cm.
6 × 6 = 36 so the area is 36 cm²



The height must be **perpendicular** to the base.

Other Topics/Units this could appear in:

- Perimeter and Area
- Plans and Elevations
- Surface Area and Volume

Keyword/Skill	Definition/Tips
Rectangle	4 right-angles 2 pairs of opposite equal parallel sides 
Triangle	3 sides and 3 angles. Scalene, isosceles, equilateral, right-angled. 
Parallelogram	2 pairs of equal parallel sides 2 pairs of opposite equal angles 
Perpendicular	Meeting at right angles (90°) 

Year 7 – Maths – Mastery: Unit 12 – Transforming 2D Figures

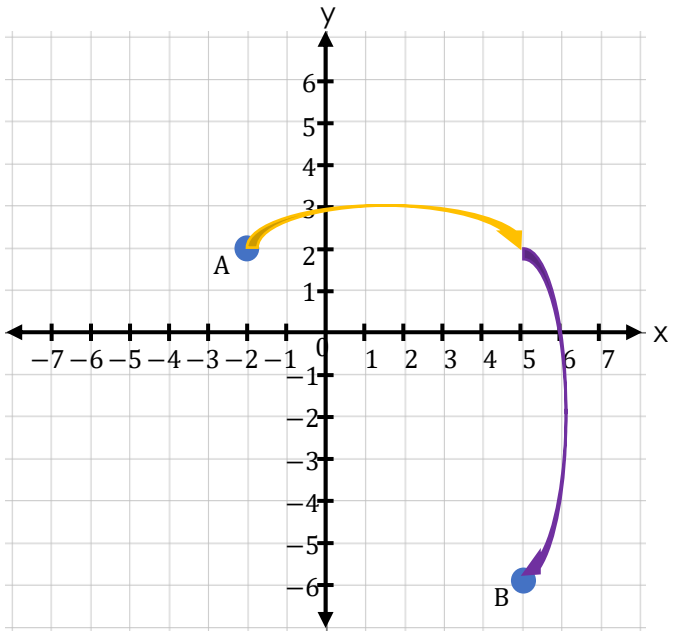
Translations

Translations are movements in a direction.
Column vectors can be used to describe translations.

7 units in the positive x-direction

From point A to point B the translation is: $\begin{pmatrix} 7 \\ -8 \end{pmatrix}$

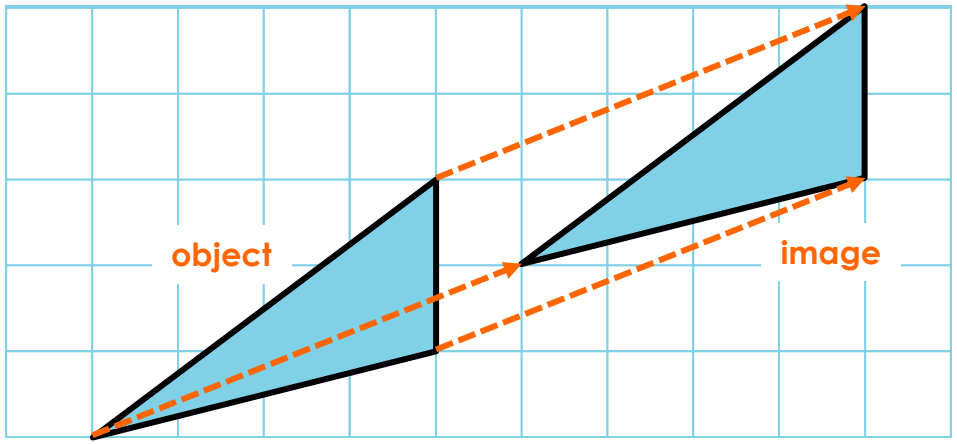
8 units in the negative y-direction



First count the number of squares moved in the x-direction and then count the number of squares moved in the y-direction.

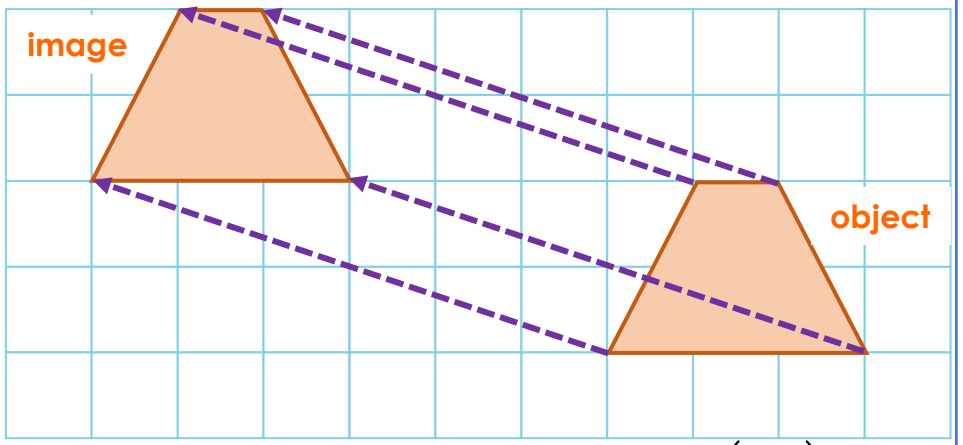
When a whole shape is translated, every vertex moves by the **same** translation vector.

Translating a shape



The translation vector from this object to its image is $\begin{pmatrix} 5 \\ 2 \end{pmatrix}$

Every vertex (corner) has moved by exactly the same column vector.



The translation vector from this object to its image is $\begin{pmatrix} -6 \\ 2 \end{pmatrix}$

Other Topics/Units this could appear in:
Year 9/10: Unit 46 - Congruence/Similar Shapes
Unit 47 - Transformations

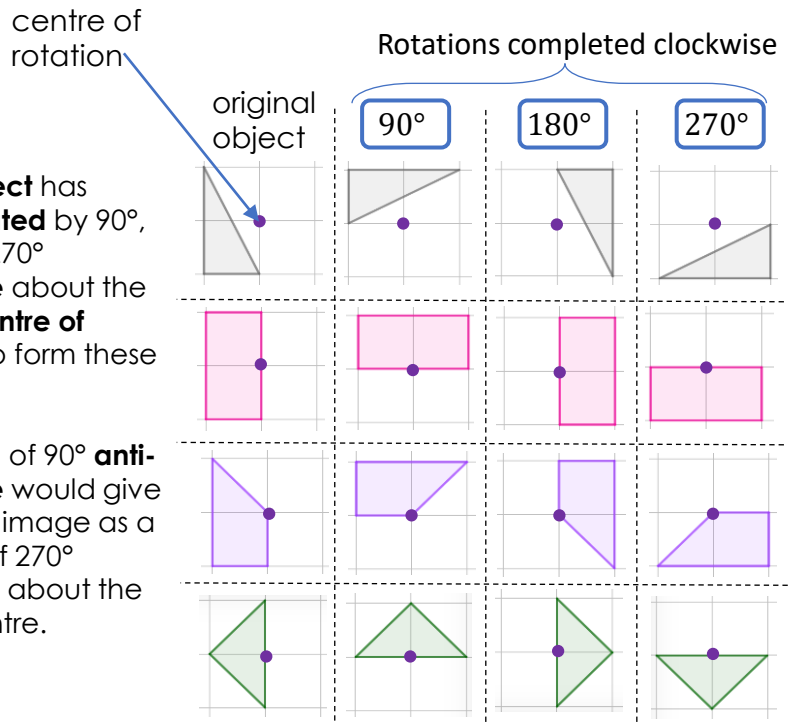
Keyword/Skill	Definition/Tips
Polygon	2-D shape with straight sides and no curved sides.
Regular polygon	All the sides are exactly the same length, all the interior angles are exactly the same size.
Origin	The centre of the axes, where the x-axis and y-axis cross at the point with coordinates (0,0)
Similar	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).
Invariant point	A point on the original object which has not been affected by the transformation, so is in the same place on the image.
Object	The shape you start with when performing transformations.
Image	The finished shape you have after you have performed any transformations.
Describe	State exactly what **single** transformation has been performed on a shape.

Year 7 – Maths – Mastery: Unit 12 – Transforming 2D Figures

Other Topics/Units this could appear in:
Year 9/10: Unit 46 - Congruence/Similar Shapes
Unit 47 - Transformations

Rotations

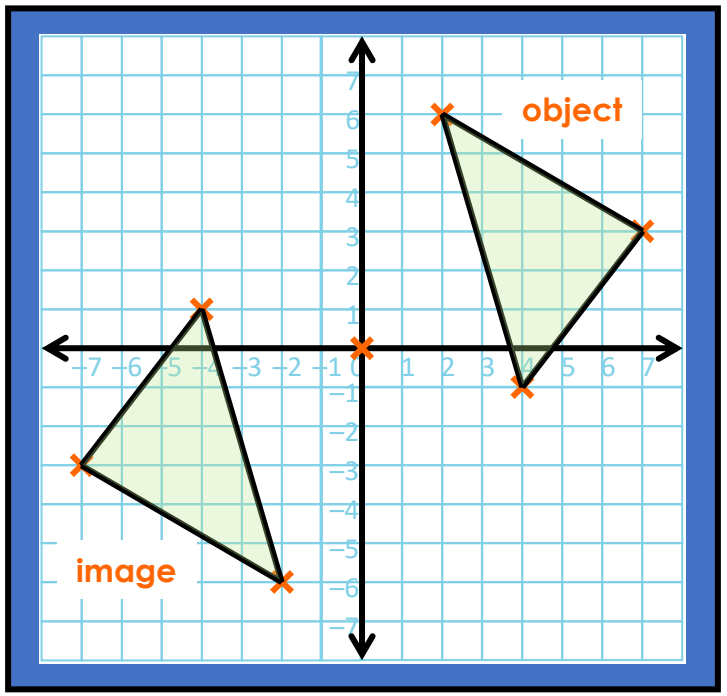
Rotations are turns around a point, which is called the **centre of rotation**.



Each **object** has been **rotated** by 90°, 180 and 270° **clockwise** about the purple **centre of rotation** to form these **images**.

A rotation of 90° **anti-clockwise** would give the same image as a rotation of 270° clockwise about the same centre.

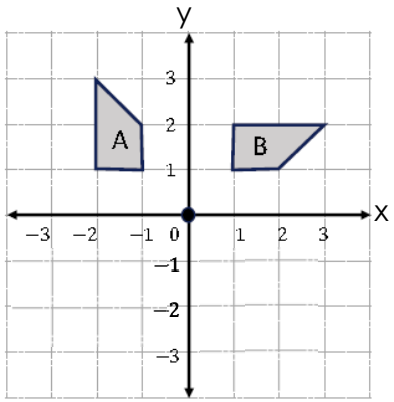
This object has been rotated about the origin by 180°. The direction does not matter because 180° is a half turn, and a half turn clockwise has the same effect as a half turn anti-clockwise.



When we describe this type of transformation, we state that from A to B is:

- A rotation
- From centre (0,0)
- By 90° clockwise

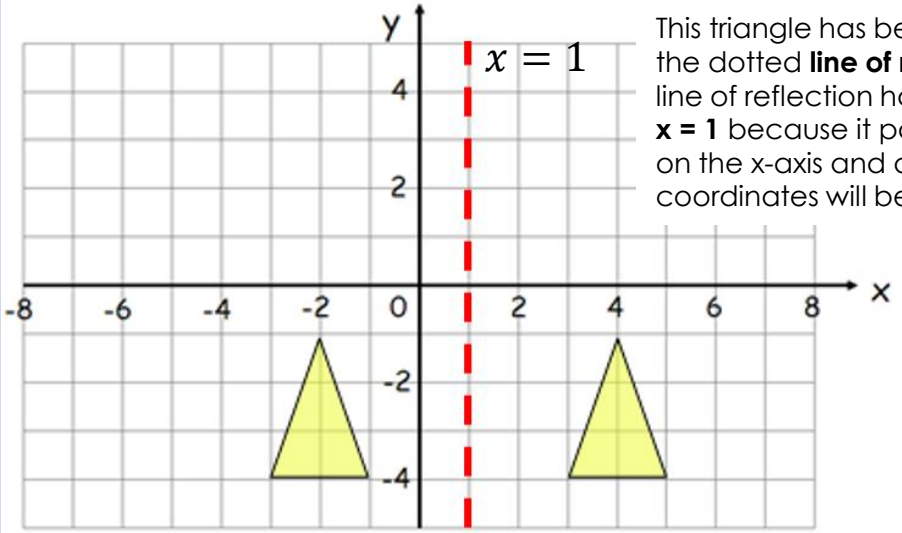
We must always give all three pieces of information to fully describe a rotation.



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.
Origin	The centre of the axes, where the x-axis and y-axis cross at the point with coordinates (0,0)
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).
Invariant point	A point on the original object which has not been affected by the transformation, so is in the same place on the image.
Object	The shape you start with when performing transformations.
Image	The finished shape you have after you have performed any transformations.
Describe	State exactly what single transformation has been performed on a shape.

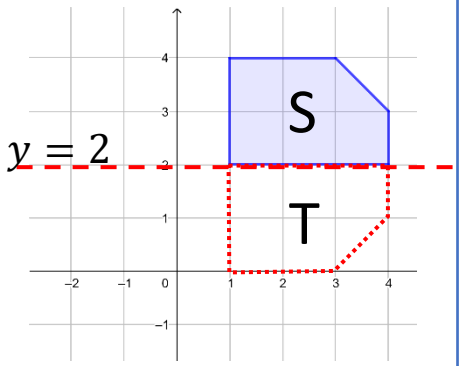
Year 7 – Maths – Mastery: Unit 12 – Transforming 2D Figures

Reflections flip an object, but its size and shape remain the same. The mirror line is called the **line of reflection**.



This triangle has been **reflected** in the dotted **line of reflection**. The line of reflection has the equation **x = 1** because it passes through 1 on the x-axis and all its x-coordinates will be 1.

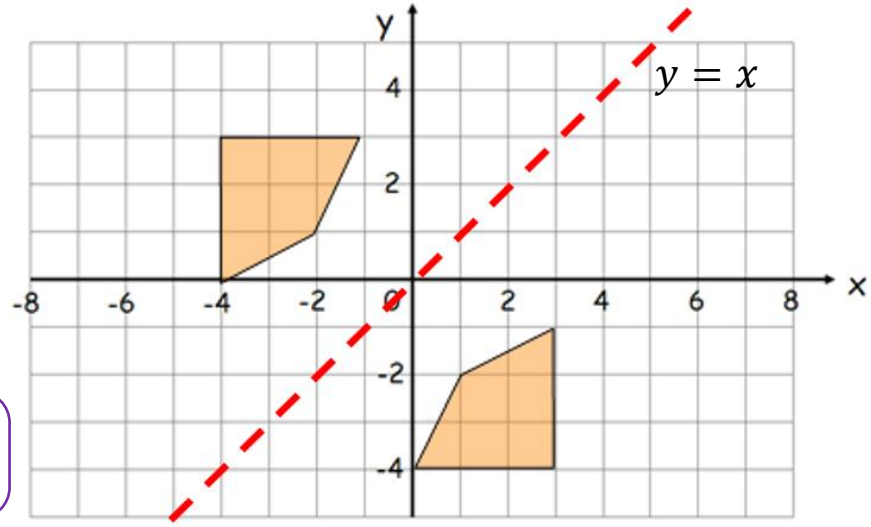
Reflections



This shape has been **reflected** in the dotted **line of reflection**. The line of reflection has the equation **y = 2** because it passes through 2 on the y-axis and all its y-coordinates will be 2.

Diagonal lines of reflection

This shape has been **reflected** in the dotted **line of reflection**. The line of reflection has the equation **y = x** because it passes through the origin and all its pairs of coordinates will have matching x and y values, such as (1,1), (2,2), (-4,-4)…



There are two diagonal lines you need to know. They are:
y=x (shown on the diagram)
and y = -x (slopes the opposite direction)

Other Topics/Units this could appear in:
Year 9/10: Unit 46 - Congruence/Similar Shapes
Unit 47 - Transformations

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.
Origin	The centre of the axes, where the x-axis and y-axis cross at the point with coordinates (0,0)
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).
Invariant point	A point on the original object which has not been affected by the transformation, so is in the same place on the image.
Object	The shape you start with when performing transformations.
Image	The finished shape you have after you have performed any transformations.
Equidistant	Two points are the same distance away from the line of reflection.

Year 7 – Maths – Mastery: Unit 12 – Transforming 2D Figures

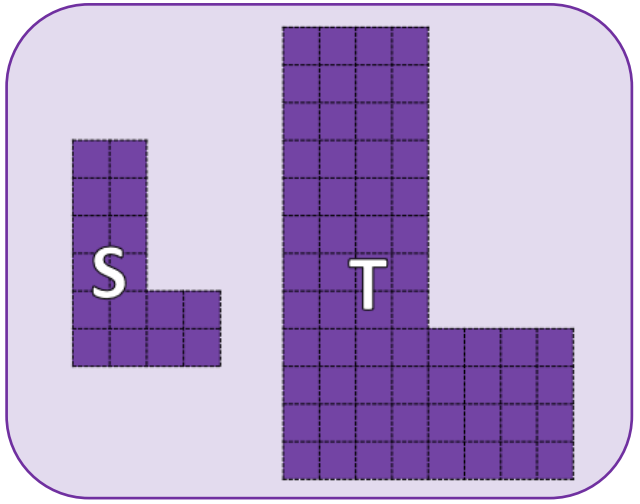
Other Topics/Units this could appear in:
Year 9/10: Unit 46 - Congruence/Similar Shapes
Unit 47 - Transformations

Enlargements

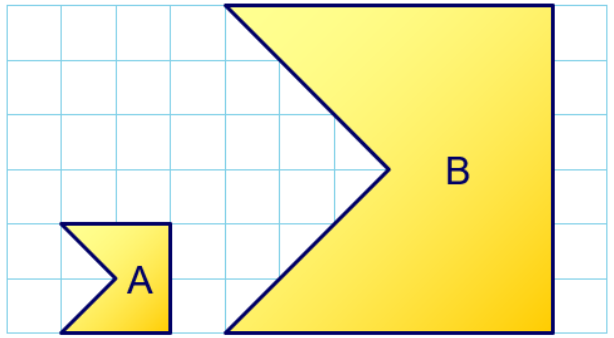
Enlargements make the object bigger or smaller.
Scale factors tell us how much bigger or smaller.

S is an enlargement of T by scale factor $\frac{1}{2}$

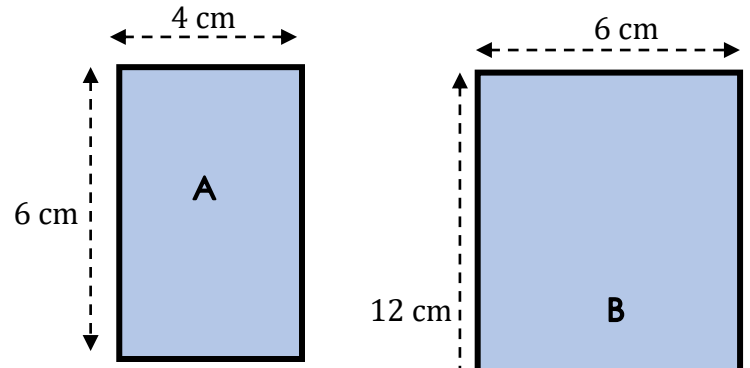
T is an enlargement of S by scale factor 2



A is an enlargement of B by scale factor $\frac{1}{3}$



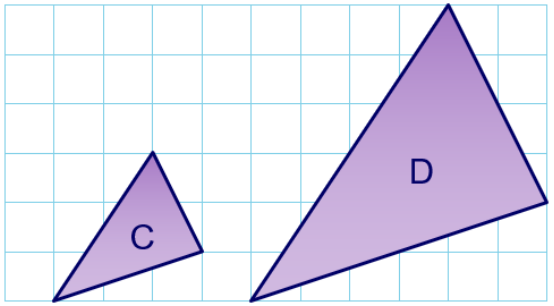
B is an enlargement of A by scale factor 3



B is not an enlargement of A because the side lengths have not been increased by the same scale factor. The scale factor must be exactly the same for all lengths.

C is an enlargement of D by scale factor $\frac{1}{2}$

Even when the scale factor makes a shape smaller, the transformation is still called an enlargement.



D is an enlargement of C by scale factor 2

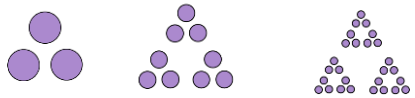
Keyword/Skill	Definition/Tips
Polygon	2-D shape with straight sides and no curved sides.
Regular polygon	All the sides are exactly the same length, all the interior angles are exactly the same size.
Origin	The centre of the axes, where the x-axis and y-axis cross at the point with coordinates (0,0)
Similar	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).
Invariant point	A point on the original object which has not been affected by the transformation, so is in the same place on the image.
Object	The shape you start with when performing transformations.
Image	The finished shape you have after you have performed any transformations.
Equidistant	Two points are the same distance away from the line of reflection.

Year 7 – Maths – Mastery Unit 13 – Prime Factor Decomposition

Index Form

Index form is writing numbers in terms of their powers, $4 \times 4 = 4^2$

$3^1 = 3$ $\quad 3^2 = 3 \times 3$ $\quad 3^3 = 3 \times 3 \times 3$



Prime Numbers

A prime number has exactly two factors

2 3 5 7 11 13 17
19 23 29 31 37 41
43 47 53 59 61 67
71 73 79 83 89 97

Multiples

The Lowest Common Multiple (LCM) is the smallest number that appears in both times tables

multiples of 2: 2, 4, 6, 8, 10, 12, ... (+2 +2 +2 +2 +2)

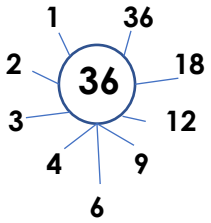
multiples of 3: 3, 6, 9, 12, 15, ... (+3 +3 +3 +3)

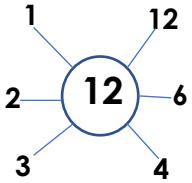
The LCM of 2 and 3 is 6

Highest Common Factor

To find the highest common factor of two numbers, you need a biggest factor of two numbers.

Ex1: Find the HCF of 36 and 12

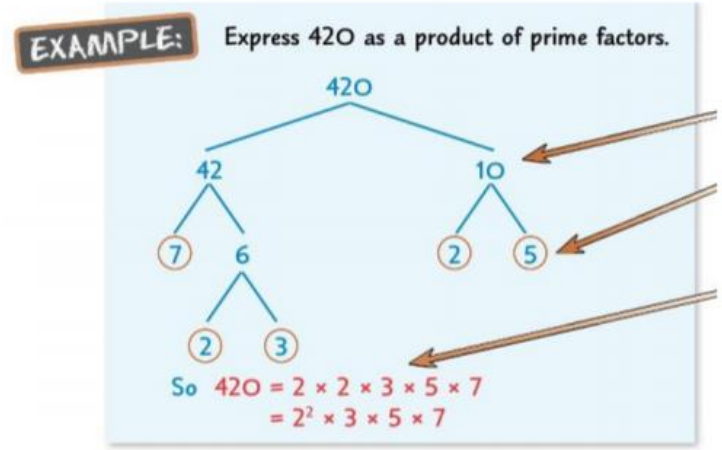




As you can see: 1, 2, 3, 4, 6 and 12 are all common factors.
We want the **highest common factor** which in this case is 12
Ans: HCF of 12 and 36 = 12

Prime Factor Decomposition

Any number can be written as a **product of prime factors**. It is also called **Prime Factorisation** or **Prime Factor Decomposition.**



1) Start with the number at the top and split it into **factors** as shown.
2) Then do the same with the factors you have written.
3) If the number is a **prime number** put a circle around it.
4) Keep going until you can't go any further (i.e. you are just left with prime numbers
5) Write these prime numbers out as a **product**.
6) If there is more than one of the same factor, you can write them as powers (**index form**).

No matter what numbers you choose for each step, you'll find the product of primes is exactly the same!

Keyword/Skill	Definition/Tips
Product	Means multiply
Prime number	A number that has exactly two **factors**
Factor	An integer that divides the number exactly leaving no remainder
Multiples	Multiples of 4 are all the numbers in the 4 times table: 4, 8, 12, 16, 20, 24, 28, …
Square number	A number multiplied by itself i.e. $2^2 = 4$
Cube number	The result of multiplying an integer by itself three times i.e. $2 \times 2 \times 2 = 2^3 = 8$
Index Form	Writing numbers in terms of powers E.g. $6 \times 6 \times 6 \times 6 = 6^4$ <- This is in index form
Prime Factor	A **factor** of a number that is also a **prime number**
Prime Factor Decomposition /Prime Factorisation	To write a number as a **product** of **prime numbers** Every number has a unique **prime factorisation**
Highest Common Factor (HCF)	The highest number that can be divided exactly into each of two or more numbers
Lowest Common Multiple (LCM)	The lowest number that is a multiple of two or more given numbers

Other Topics/Units this could appear in:

- Numbers, powers, roots, decimals and rounding
- Product of prime factors
- Multiples in context
- Index Laws
- Standard Index Form

Year 7 – Maths – Mastery Unit 13 – Prime Factor Decomposition

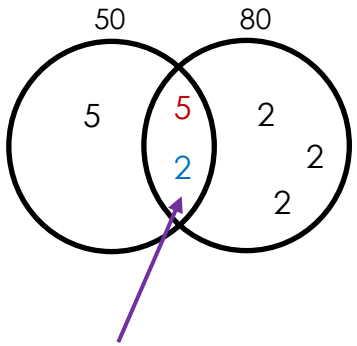
We can also use the product of primes to figure out the HCF & LCM of two numbers:

Example: What is the HCF and LCM of 50 and 80?

1) Find the product of prime factors for 50 and 80.

2) Put the prime factors of 50 and 80 into a Venn Diagram

50 = 2 x 5 x 5 80 = 2 x 2 x 2 x 2 x 5



Numbers common to both 50 and 80 go in the middle…

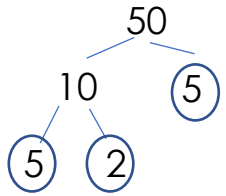
Multiply the middle numbers to find the **HCF**

→ 2 x 5 = **10**

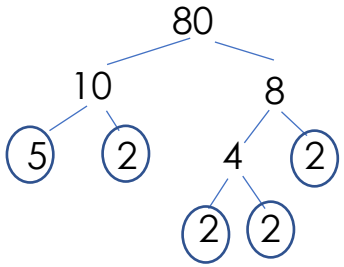
Multiply all the numbers in the Venn Diagram to find the **LCM**

→ 5 x 5 x 2 x 2 x 2 x 2 = **400**

Finding HCF and LCM



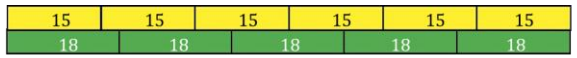
50 = 2 x 5 x 5



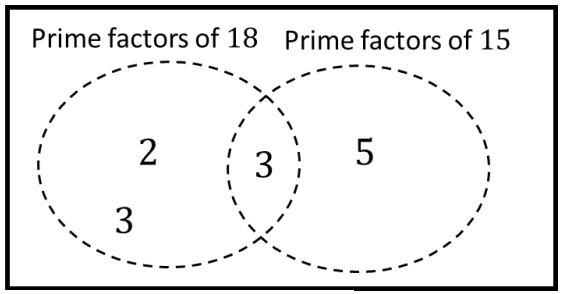
80 = 2 x 2 x 2 x 2 x 5

Alternative Method

We can use the bar model to find the LCM



18, 36, 54, 72, (90), 108 … 15, 30, 45, 60, 75, (90) …



$$90 = \underbrace{2 \times 3}_{18} \times \overbrace{3 \times 5}^{15}$$

Here we find the same answer using two different methods

Keyword/Skill	Definition/Tips
Product	Means multiply
Prime number	A number that has exactly two **factors**
Factor	An integer that divides the number exactly leaving no remainder
Multiples	Multiples of 4 are all the numbers in the 4 times table: 4, 8, 12, 16, 20, 24, 28, …
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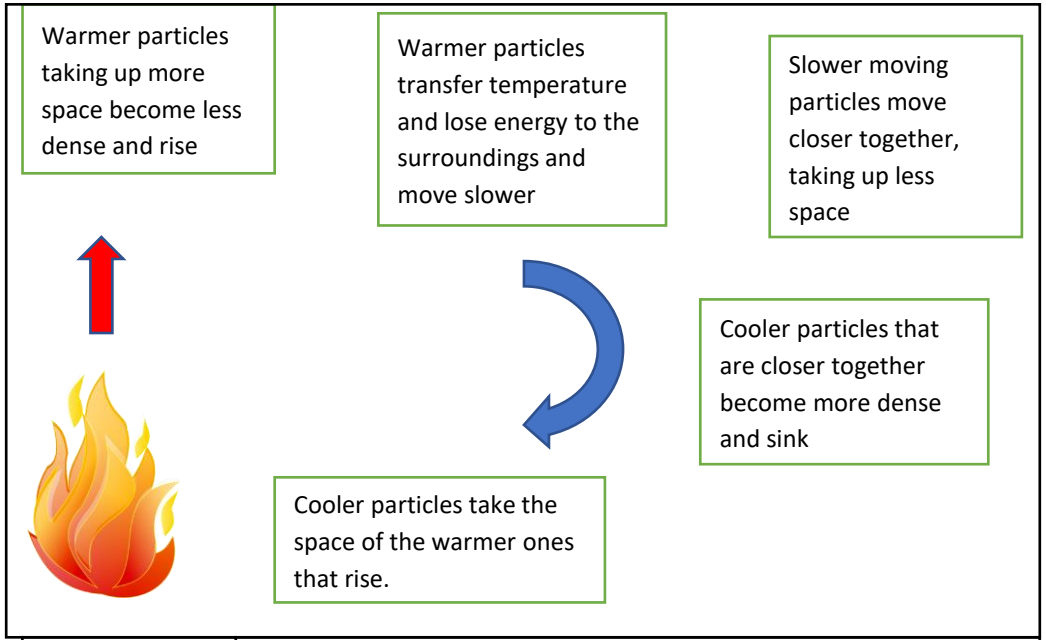
Other Topics/Units this could appear in:

- Numbers, powers, roots, decimals and rounding
- Product of prime factors
- Multiples in context
- Index Laws
- Standard Index Form

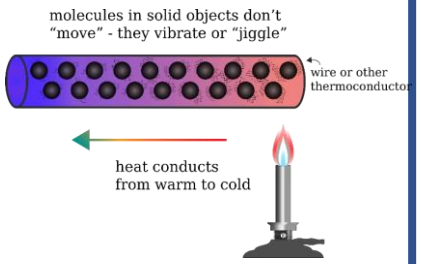
Year 7 – Science – P1a. Energy

Convection	
State of matter	Liquids and Gases
Description	Particles with lots of heat energy in a liquid or gas move and take the place of particles with a lot of energy. Heat energy is transferred from hot places to cooler places by convection
Explanation	Liquids and gases expand when they are heated. This happens because the particles in the liquid or gas moves faster when they are heated. This causes the particles to take up more space as the gaps between particles gets bigger. The liquid or gas in hot areas is less dense than the liquid or gas in the cold areas, so it rises into the cold areas. The denser cold liquid or gas falls into the warm areas. In this way, convection currents form that transfer heat from one place to another



Radiation	
State of matter	n/a
Description	A type of electromagnetic radiation called infrared radiation.
Explanation	Infrared radiation involves waves instead of particles. As such it can travel through a vacuum e.g. space. The hotter an object is, the more infrared radiation it emits.

Conduction	
State of matter	Solids
Description	Heat moves from the hotter part of the object to the colder part
Explanation	Particles in the metal are packed closely together. As they are heated the particles gain kinetic energy and vibrate more. The particles that are vibrating collide with other particles and start to make them vibrate. This passes the kinetic energy from the heated particles to the cooler particles causing them to heat up too.



Keyword	Definition
Burn	Common term for combustion. A reaction with oxygen in which energy is transferred to the surroundings as heat and light.
Calorimetry	The measurement of heat change during a chemical reaction
Chemical	Energy store that is emptied during chemical reactions when energy is transferred to the surroundings.
Compare	When you compare things, you consider them and discover the differences or similarities between them.
Conduction	The transfer of heat by passing on energy (or electrical charge) to nearby particles.
Convection	The process by which heat travels through fluids (gases and liquids).
Describe	If you describe a person, object, event, or situation, you say what they are like or what happened.
Efficiency	A measure of how much of the total energy transferred in a process achieved a desirable useful outcome.
Elastic Potential	An energy store that is filled when a material is stretched or compressed.
Electrical	Energy store resulting from the movement of electrical charge (electrons).
Energy	This is the ability to make something happen when it is transferred.
Evaluate	If you evaluate something or someone, you consider them in order to make a judgment about them, for example about how good or bad they are.
Explain	If you explain something, you give details about it or describe it so that it can be understood. If you explain something that has happened, you give people reasons for it, especially in an attempt to justify it.
Food	A chemical store of energy, that you once eaten and digested can be used to release energy.
Gravitational potential	Energy store that is filled when an object is raised.
Heat	Heat is the transfer of internal energy from one region to another., measured in Joules.
Joule	Unit of energy, represented by the symbol J.
Kinetic	An energy store filled when a moving object speeds up.
Light	A form of radiation that can transfer energy in a wave.
Non-renewable	An energy resource that will be used up, and not replenished in our lifetime.
Nuclear	An energy store associated with nuclear interactions.
Radiation	Radiation is the transfer of internal energy in the form of electromagnetic waves. This radiation lies in the infrared region of the electromagnetic spectrum. It does not require particles to move, it can travel through a vacuum.
Renewable	An energy resource that can be readily replenished in our lifetime.
Sound	A form of energy transferred by sound waves.
Temperature	A measurement of how hot or cold something is, unit of measurement is °C
Thermal	An energy store that is filled when an object is heated.
Thermometer	A piece of equipment used to measure temperature.
Transfer	The process by which energy moves from one store to another.
Transformation	Energy transformation is the process of changing one form of energy to another.

Year 7 – Science – P1a. Energy

Equations	
	Equation
Cost (pence)	Cost = number of kilowatt hours x price for one kilowatt hour
Word done (Joules/J)	Work done = force x distance
Efficiency (%)	Efficiency = (useful output/total input) x 100
Power (Watts/W)	Power = energy/time

Renewable and non-renewable energy sources		
Renewable Energy	Quickly replenishes its energy used. Infinite	Wind power, solar power, hydroelectric power, tidal power, geothermal power, biomass
Non-renewable Energy	Is finite (will run out). Does not quickly replace energy used	Fossil fuels – coal, oil and natural gas Nuclear power

Transferring Thermal Energy		
	Temperature change	Direction of energy flow
Object hotter than surroundings	Temperature of object decrease until it is the same as the surroundings	Energy flows out of the object to the surroundings
Object colder than surroundings	Temperature of object increases until it is the same as the surroundings	Energy flows into the object to the surroundings
Object the same temperature of the surrounds	The object's temperature stays the same	The is no net flow of energy

Types of thermal insulation	
Appliance/feature	Description
Boiler	This has a large surface area to allow for large amounts of heat energy to be transferred to its surrounding through convection
Radiator	This is specially designed to have a heating element at the bottom. Convection currents heat all the water in it.
Double Glazing	Windows and doors with 2 planes of glass with air trapped between them (or a vacuum between them). Air is a poor conductor and there is no convection because the air is trapped and cannot for convection currents
Loft Insulation	A thick layer of the loft floor. It works because it's a poor conduction and traps air, stopping convection
Floor Insulation	An insulation layer under the floor. Prevents heat loss because it is a poor conductor
Draught excluders	Brushes and seals on doors. Prevents warm air escaping from the home
Cavity wall insulation	Insulation place in the cavity of the walls. It works because it traps air which is a poor conductor. However, energy could still be lost due to convection so a insulating material is injected into the gap to create pockets of air and prevent convection currents forming

Types of Energy	
Energy Type	**Example**
Light Energy	Sun, light bulb, torch
Thermal Energy (heat)	Oven, electric fire
Sound Energy	Radio, speakers, TV
Electrical Energy	Electric car, laptop
Nuclear Energy	Nuclear power station, nuclear bomb
Chemical Energy	Food, batteries, coal
Gravitational Potential Energy	Book on a shelf, boulder on a cliff
Elastic Potential Energy	Bow, wind-up toy, stretch spring
Kinetic Energy (movement)	Person running, rolling ball

Reflection and absorption of heat by radiation			
colour	finish	ability to emit thermal radiation	ability to absorb thermal radiation
dark	dull or matt	good	good
light	shiny	poor	poor

Comparing Conduction, Convection and Radiation			
	Conduction	Convection	Radiation
Particles	Y	Y	N
Solids	Y	N	Y
Liquids	N	Y	Y
Gases	N	Y	Y
Particles move far part	N	Y	n/a
Particles vibrate on the spot	Y	N	n/a
Particles rise and fall to transfer energy	N	Y	n/a
Particles hit each other to transfer energy	Y	N	n/a

Energy Transfer Diagrams

When drawing energy transfer diagrams start with the energy in on the left of the arrow and the energy out on the right-hand side. There will be waste and useful energy out

General Transfer diagram

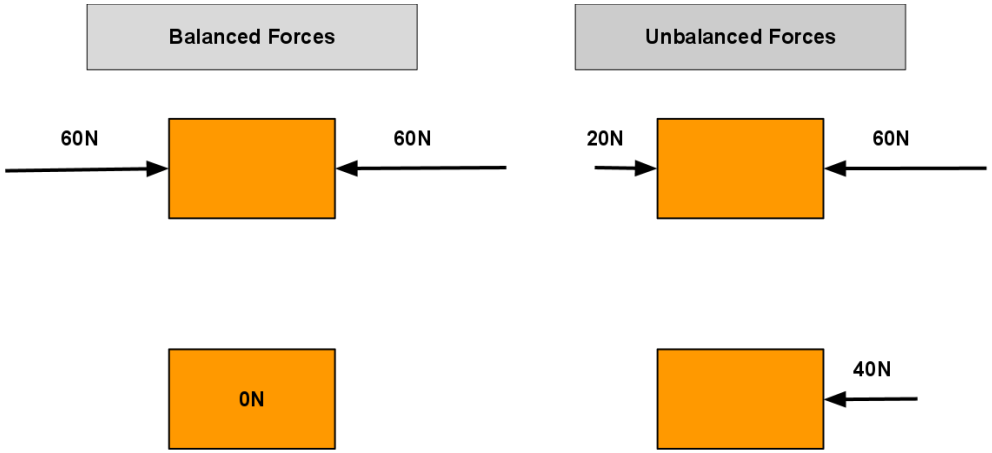
Energy in	→	Useful energy out	+	Wasted energy out

Example

Torch

Input: Chemical energy	→	Useful: Light energy	+	Wasted: Thermal energy

Year 7 – Science – P1b. Forces



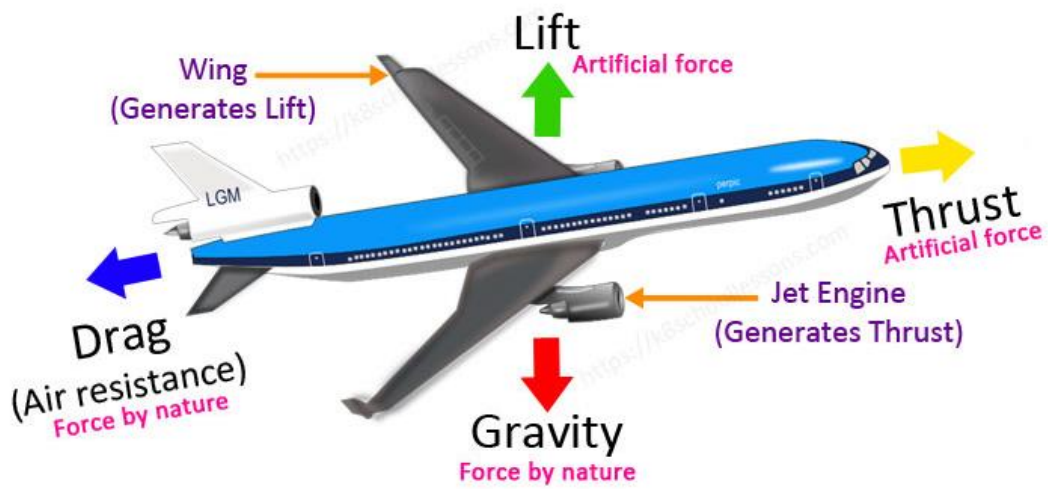
Contact force	Non contact force
Force that arises due to contact between 2 objects	Force that arises from attraction or repulsion of two objects, no contact between the objects
Examples: friction, upthrust	Examples: gravity, magnetism

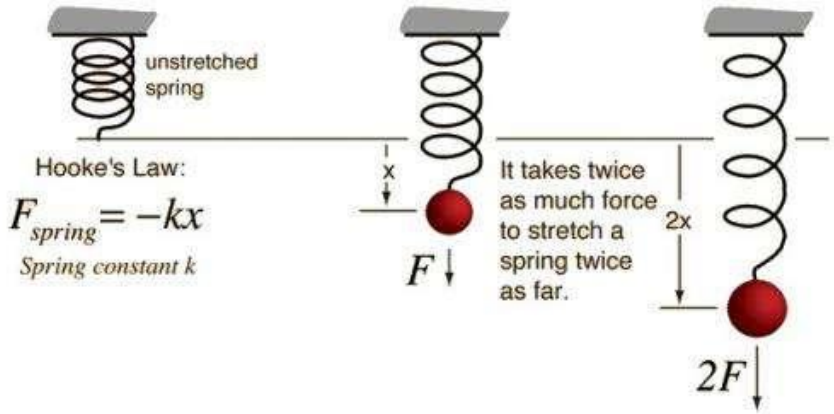
Keyword	Definition
Force	A push or a pull that can change the shape or direct an object is moving in.
Friction	The resistance of motion when one object rubs against another. Friction acts in the opposite direct to the movement of an object.
Balanced	When two forces acting on an object, in opposite directions, are equal in size. This means the object will remain the same (constant speed or stationary).
Unbalanced	When two forces acting on an object, in opposite directions, are uneven in size. This causes a change in direction, speed or shape of the moving object.
Pressure	The force over a given area.
Drag	A force that cause an object to slow down through a liquid or gas (also known as air/water resistance).
Upthrust	A force in water that pushes upwards.


High Pressure

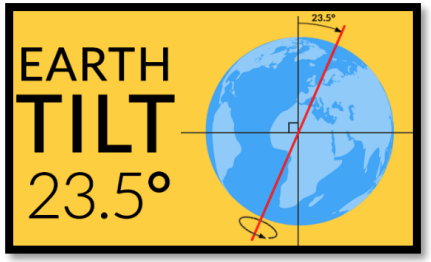

Low Pressure

Forces acting on an Aeroplane





Year 7 – Science – P1c. Earth and Space



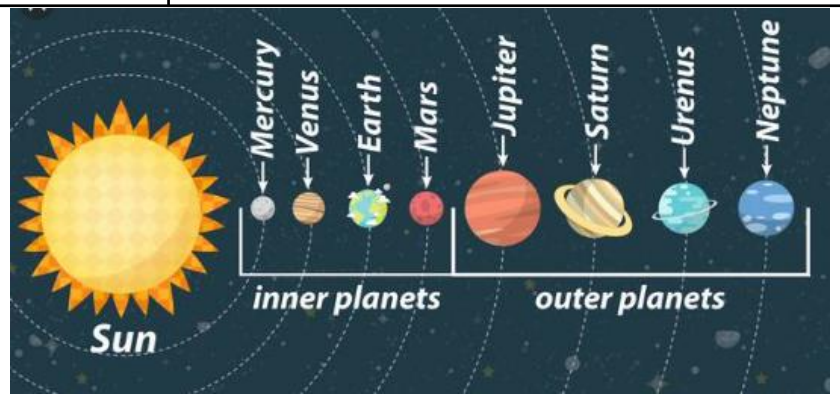
A day is **24 hours** long. This is because it takes 24 hours for the Earth to spin once on its axis.
The half of the Earth facing the Sun is in daylight. The half facing away from the Sun has no sunlight and so becomes night-time.

One year = **365¼ days**

- Universe
- Galaxy
- Milky way
- Stars and planets

"**M**y **V**ery **E**ager **M**other **J**ust **S**erved **U**s **N**achos"

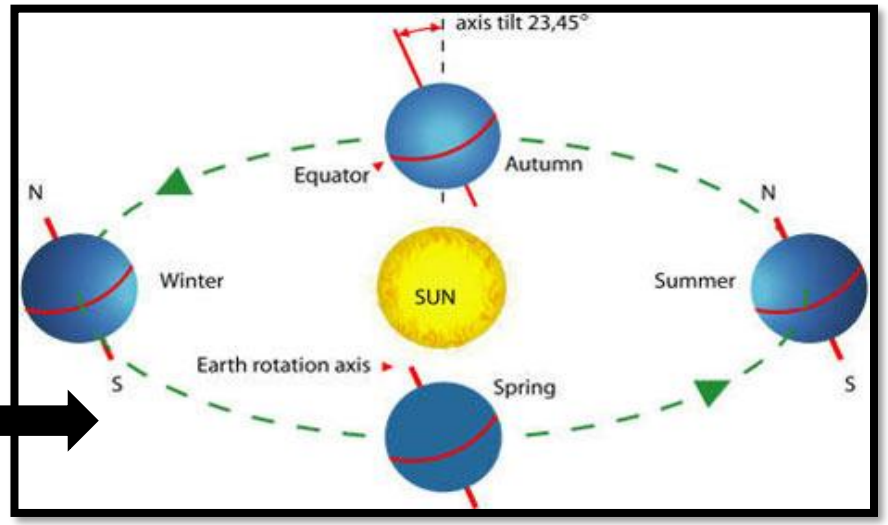
Keyword	Definition
Planet	*A planet is a large object the orbits a star. There are eight planets in our solar system, including the Earth, and smaller dwarf planets, such as Pluto, Ceres and Eris.*
Satellite	*A satellite is an object in orbit around a planet. The Moon is the Earth's natural satellite, but humans have launched many artificial satellites into orbit. The Moon is the Earth's natural satellite.*
Seasons	***In the United Kingdom we have four seasons (winter, spring, summer and autumn. We get seasons because the Earth's axis is tilted.***
Solar system	*The solar system consists of the Sun surrounded by planets, comets and asteroids in orbit. Most planets in the solar system have moons in orbit around them.*
Star	***These are giant spheres of superhot gas made up mostly of hydrogen and helium. Stars get so hot by burning hydrogen and helium. Our Sun is an example of a star.***
Tilt	***An object being in the sloping position.***
Waning	***After the Moon gets to its full phrase, we start to see less and less of the Moon.***
Waxing	***As the Moon begins its orbit, and we see more and more of the Moon.***
Universe	***Contains billions of galaxies.***

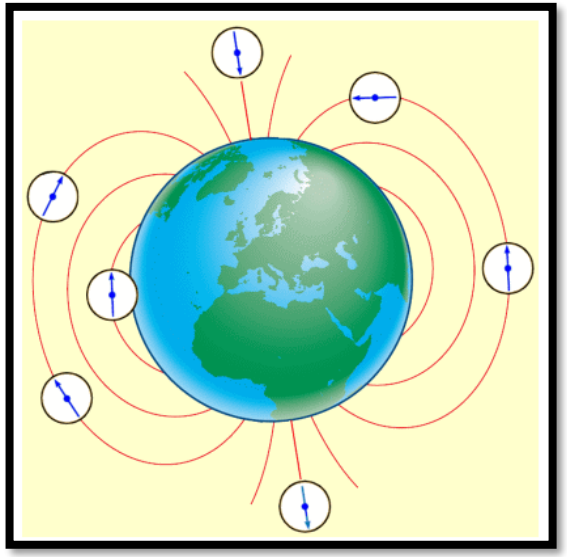


Keyword	Definition
Asteroid	*An asteroid is a chunk of rock and metal in outer space that is in orbit around the Sun.*
Axis	*An imaginary line about which a body rotates.*
Comet	*Comets are balls of ice and dust in orbit around the Sun*
Crescent	*A crescent is a thin, curved shape that is thicker in the middle and tapers to thin points at each end, like the little sliver of moon you might notice in the sky.*
Days	*A day is the time it takes for a planet to turn once on its axis. An Earth day is 24 hours long.*
Eclipse	*An eclipse occurs when one object blocks another object from being seen. From Earth there are two main types of eclipses: solar eclipses and lunar eclipses.*
Ellipse	*An oval shape, squashed circle shaped.*
Galaxy	*Contains millions of stars, geld together by the force of gravity.*
Gibbous	*Gibbous moon appears to be more than one-half but not fully illuminated by sunlight.*
Gravity	*Gravity is a force that attracts objects towards each other. We commonly experience gravity by being pulled downwards by the Earth.*
Hemisphere	*Hemisphere means half (hemi) of the Earth (sphere).*
Magnetic field	*A force around magnet. The force around a magnet cannot be seen.*
Meteoroid/ Meteor	*A meteoroid is a small rock or particle of debris in our solar system. A meteoroid that burns up as it passes through the Earth's atmosphere is known as a meteor.*
Moon	*Satellite to the Earth. It is smaller and has less mass than Earth.*
Phases of the moon	*The phase of the moon is how much of the moon appears to us on Earth to be lit up by the sun.*

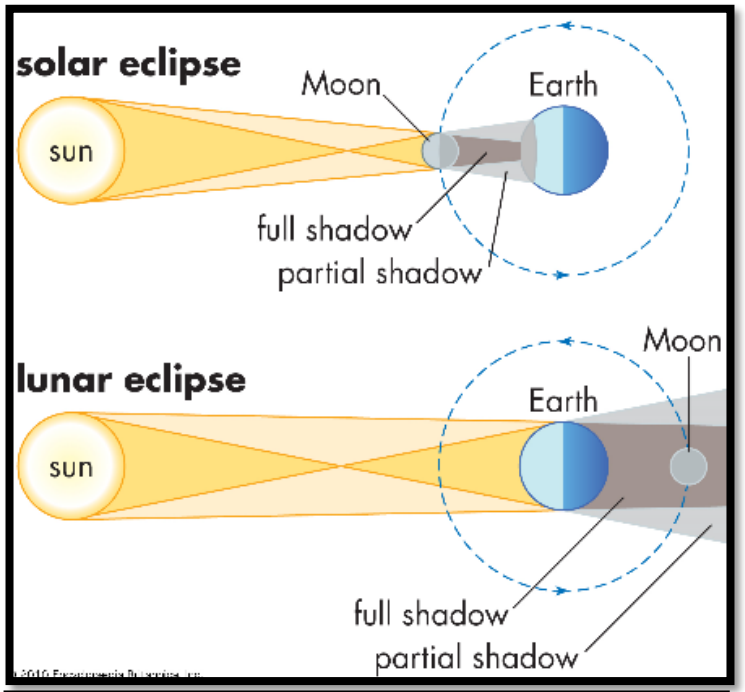
Year 7 – Science – P1c. Earth and Space

The Earth's axis is tilted as it travels around the Sun, so some parts of the Earth receive more sunlight each day than others. This changes during the year because the Earth moves about the Sun, which gives rise to the seasons.
The UK is in the top half (**northern hemisphere**) of the Earth. When the northern hemisphere is tilted towards the Sun it is summer in the UK.
Six months later the northern hemisphere is tilted away from the Sun and it is winter.
In Spring, the temperature and day length become longer. In Autumn, they are shorter.

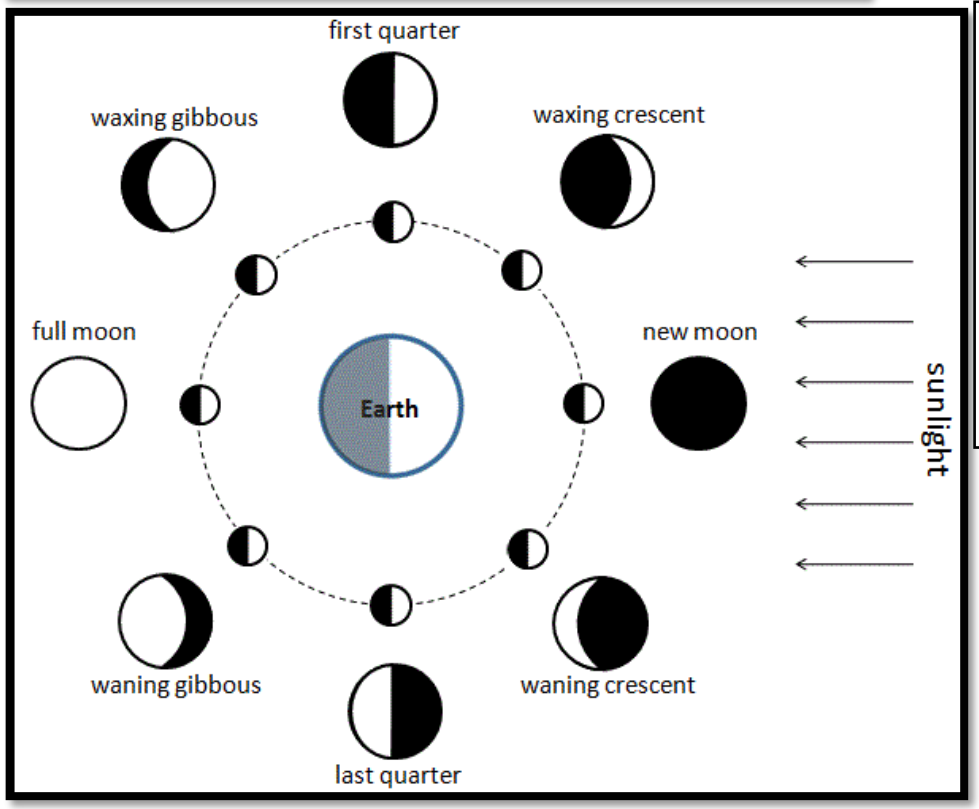




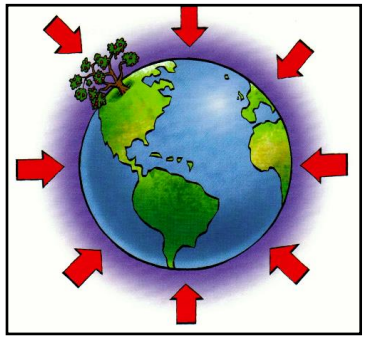
The Earth behaves as if it contains a giant magnet. It produces a magnetic field in which the field lines are most concentrated at the poles. This magnetic field can be detected using magnetic materials or magnets.



A solar eclipse occurs when the Moon passes in front of the Sun causing a shadow to fall on certain portions of the Earth. A lunar eclipse occurs when the Moon passes through the Earth's shadow.



Gravity is a force that attracts objects towards each other.
We are pulled down towards the ground because of gravity. The gravitational force pulls in the direction towards the centre of any object. So we are pulled towards the centre of the Earth.



Weight = Mass x Surface Gravity

Weight is a force caused by gravity.
The weight of an object is the **gravitational force** between the object and the Earth.
The more mass the object has the greater its weight will be.
Weight is a force, so it's measured in **newtons**.
On the surface of the Earth an object with a mass of 1 kg has a weight of about 10 N.

Y7 ART SWARM KNOWLEDGE ORGANISER
Visual Research/Title Page
Using resources – testing out ideas/media.
Making a personal response – final outcome.

How do I investigate the importance of insects and how they have influenced art from different times and cultures?

- Collect a range of information and present as an annotated Title page.
- Different cultures
- Different times/art Movement link.
- What does this research tell you?

A good annotated Title page should include key words and information art vocabulary and a range of collaged visual research.

How do I develop my drawing skills using mark-making techniques?

- Explore hatching, cross hatching, scumbling, and stippling.
- Use mark making to record surface tone, texture and detail.
- Create a copy of Alfred Basha's work.
- Develop skills/knowledge of the Formal Elements.

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

How do I develop my own ideas to create a response to Alfred Basha's work?

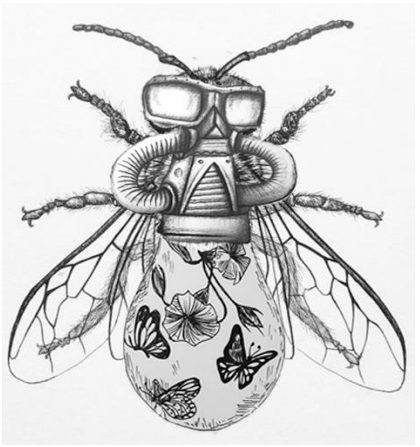
- Use the ideas behind his work to inspire you.
- Use his composition style you like the best,
- Make your work as detailed as possible.
- Use Surreal collage blends successfully.

A good artist response should show clear links to your artist's work but be your own idea. You should use materials and techniques with skill and control.

Wider Thinking:
Watch Bugs Life or Ant Bully.

Expert modelling example..

Annotated Title page.



Artist response

Stretch and Challenge:
Youtube: Pen and Ink Shading Techniques + Exploring Mark-Making:
https://www.youtube.com/watch?v=B3xrzxXvn8c

Keyword	Definition
Mark making	The creation of different patterns, lines, textures and shapes.
Formal Elements	Key words that can be applied and used to describe 2D and 3D art and design.
Response	Develop own ideas using chosen artist's style, materials and techniques.
Investigate	Try out the qualities of materials, techniques or processes.
Respond	Develop own ideas by taking inspiration from an artist's work.
Hatching	Shading with closely drawn parallel lines
Cross hatching	The drawing of two layers of **hatching** at right-angles to create a mesh-like pattern.
Scumbling	Layers of small scribbled marks to build up tone and texture.
Stippling	The creation of a pattern by using small dots. Such a pattern may occur in nature
Collage	A piece of art created by combining photos, clippings or small objects onto a surface.
Refine	Improve work by responding to feedback.

Y7 ART SWEET TREATS 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 Sarah Grahams 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 Sarah Graham's work?

- Realistic detail
- Saturated colour.
- Scale
- Blurring

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

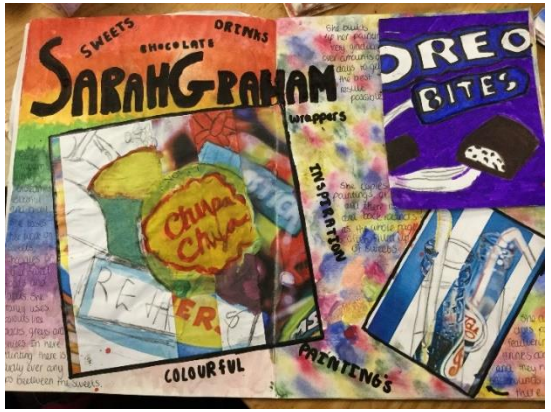
How do I develop my ideas to create a response to Sarah Grahan's work? :

- Use the idea behind her work to inspire you.
- Use her composition style that you like best.
- Make your work as detailed as possible.
- Use saturated colour blends successfully.

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.

Wider Thinking:
Watch Charlie and the Chocolate factory.

Expert modelling example..



Artist copy/written analysis

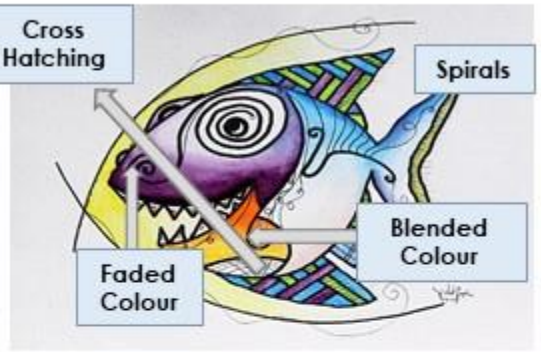
Artist response

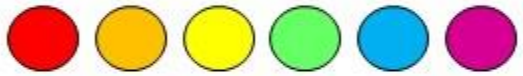
Stretch and Challenge:
Look at the work of Kate Brinkworth, Amanda Deadman and Burton Morris

Keyword	Definition
Analyse	Examine in detail.
Saturated	The intensity of colour in an image.
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'.
Blend/Layer	Mix together – put on top of each other
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.
Colour	**Colour** has the strongest effect on our emotions. It is the element we use to create the mood or atmosphere of an artwork.

Y7 TEXTILES
JASON SCARPACE
ABORIGINAL ART
KNOWLEDGE ORGANISER

ORMISTON SWB ACADEMY





LOWEST LEVEL → HIGHEST LEVEL

Fabric Painting

1. Draw your image lightly onto the fabric. Fix your fabric to the table with masking tape.

2. Choose your paint colour. You can mix colours if you wish but don't be wasteful.

3. Choose your brush. A large one is good to fill bigger areas and a smaller brush for fine lines.

4. Dilute the paint slightly with water and start by painting your outline.

5. Paint in your images and try to paint in one direction.

6. When you have finished, wash your equipment and hang your fabric to dry.

Mono - Print

Put a small amount of ink on your white board. (size of a chocolate roll)

Using your roller, roll out a really thin layer of ink.

Using your roller, roll out a really thin layer of ink.

Place your fabric/paper, lightly on top of the ink. – DO NOT PRESS DOWN.

Place the image you want to print on top and trace.

Black - represents the Aboriginal people of Australia.

Red - represents the red earth, the red ochre used in ceremonies and Aboriginal people's spiritual relation to the land.

Yellow Disk - represents the Sun, the giver of life and protector.

Aboriginal Art

Shading Techniques

Keyword	Definition
Aboriginal	**Aboriginal mean** belonging to a locality. native implies birth or origin in a place or region and may suggest compatibility with it.
Mono - Print	A monoprint is **a single impression of an image made from a reprintable block.** Materials such as metal plates, litho stones or wood blocks are used for etching upon. ... Monoprints are known as the most painterly method among the printmaking techniques; it is essentially a printed painting.
Influence	Something or someone that influences a person or thing, then, has an influence on that person or thing.
Artist Copy	Analyse an artists' work and replicate the piece using the same techniques, media, colours and style.
Embroidery	**Embroidery** is the craft of decorating fabric or other materials using a needle to apply thread or yarn.
Mono - Transfer	Shade the back of an image, place onto a clear piece of paper or fabric and trace so that the detail imprints.

Year 7 – Computing – Computer Components

Hardware

Computer **hardware** includes the physical parts of a computer, such as the case, central processing unit, monitor, keyboard, computer data storage, graphics card, sound card, speakers and motherboard.

The hardware components can be catergoried as Input devices and output devices

Input Devices

An **input device** is a piece of computer hardware equipment used to provide data and control signals to an information processing system such as a computer or information appliance.

Output Devices

There are lots of **output devices** that can connect to a computer some are connected via wires and other can be connected wirelessly such as bluetooth or WiFi. They help transfer the data out of the computer

Software

Software is the set of instructions or programs that can be stored and run by hardware. The programs instruct the computer to perform certain tasks

Peripheral device examples

1. Web cam
2. Mouse
3. Keyboard
4. Speakers
5. Headphones/earphones
6. External hard drive

Are just some examples of devices that are connected to a computer to either input data into the computer or transfer data out of the computer

Keywords and Definition

Peripheral a device that is able to be attached to and used with a computer, though not an integral part of it

CPU Computer processing Unit also called a **Central Processor i**s the electronic circuitry within a computer that executes instructions that make up a computer program

Hard disk drive(**HDD**), is data storage device that uses magnetic storage to store and retrieve digital

GUI is short for graphical user interface. This type of interface is made up of Windows, Icons, Menus and Pointers

Hardware includes the physical parts of a computer, such as the case, CPU, monitor, keyboard, graphics card and motherboard

Software is the set of instructions or programs that can be stored and run by hardware. The programs instruct the computer to perform certain tasks

Input device Is an input device is a piece of computer hardware equipment used to provide data and control signals to an information processing system

Output device is any piece of computer hardware equipment which converts information into human-readable form. It can be text, graphics, tactile, audio, and video

Year 7 – Computing – Computer Components

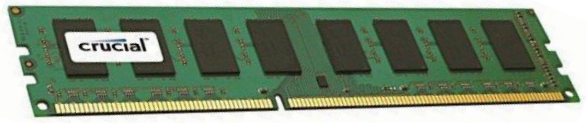
Computer Health related problems

Memory

Hard Disk Drive = Long term memory

HDD is where all of your documents, pictures, programs etc. are stored on the computer, similar to all of the long-term memories in your brain.

Random Access Memory (RAM) = Short term memory



RAM is where the computer stores the current task that is being carried out. This is like when you are thinking about how to work out a sum in maths or what a user is going to say next.

Operating Systems

An **Operating System** is a type of Systems Software.

- **Systems software** is a type of software that controls the computers **hardware** and **software**.
- It provides an **interface** between the user of the computer and the **hardware**.

Compression

- Compressed files use less storage space than those that are not.
- This makes it easier and quicker to transmit files over email or upload and download them.
- Data compression is commonly used for audio and video files.

Encryption

Encryption is the scrambling of data into a form that can no longer be understood by unauthorised people.

Year 7 – Computing- Data Representation

DATA UNITS

Abb.	b	n	B	KB	MB	GB	TB	PB
Name	bit	nibble	byte	kilobyte	megabyte	gigabyte	terabyte	Petabyte
Size	1 or 0	4 bits	8 bits	1000 bytes	1000 KB	1000 MB	1000 GB	1000 TB
Eg.	-	-	character	txt file	mp3 file	DVD	Wikipedia	BBC iplayer

BINARY TO DENARY

00011010

128	64	32	16	8	4	2	1
0	0	0	1	1	0	1	0

16 + 8 + 2 = **26**

DENARY TO BINARY

27

16	8	4	2	1
1	1	0	1	1

BINARY ADDITION

0 + 0 = **0**
0 + 1 = **1**
1 + 1 = **0** (carry 1)
1 + 1 + 1 = **1** (carry 1)

1001	1001 (1)	0111 (1 1 1)
0100	0001	0111
1101	1010	1110

Careers

- Software development
- Programing
- Software Engineering

Character Set

is used to describe the possible characters that can be represented in a computer system. E.g A a, 123, @!"£, emoji's

Ascii (American Standard Code for Information Interchange)

- Each character is given a binary code
- Uses **7 Bits** this gives **128 possible characters**
- **Extended Ascii** used **8 bits – 256 characters** – enough for the English language
- Some codes are reserved for control characters (eg TAB, Carriage Return)

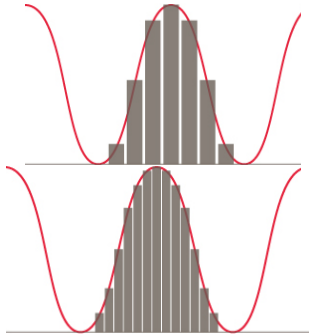
Unicode

- Unicode has a much larger character set
- can represent many more characters/characters from all alphabets
- uses 16 bits
- It **uses 2 bytes** that give us 2^{16} possibilities (65,536).
- This is used universally to represent many more languages than our own

Year 7 – Computing- Data Representation

Sound

- The height/amplitude of the sound wave is measured
  - at regular intervals
  - and converted to binary.
- If the interval is smaller
  - More samples taken
  - more data to store
  - larger files
  - the sound reproduced is closer to the original - better quality.



Low sample rate

High sample rate

Images

- Stored as Bitmap file as pixel
- **Each Pixel** of Image is made up of a 1 or 0.
- Following information about image **is stored in file**:
  - Width of the picture in pixels.
  - Number of bits used for each pixel
  - Colour of each pixel.
- **Image Resolution** = The concentration of pixels in an image
- **Higher Resolution** = More Pixels = Larger File Size
- **Lower Resolution** = Less Pixels = Smaller File Size.

Digital sound is broken down into **thousands of samples per second** – each of these **samples** is then **stored as binary data.** The **quality** that the samples are stored with depends on different factors:

- ***Sample Frequency*** - The number of audio samples captured every second
- ***Sample Size/ Bit*** - The number of bits available for each sample
- ***Bit Rate*** - The number of bits PROCESSED IN A GIVEN TIME

Low sample rate

High sample rate

Two main types:

BITMAP - The page is divided into an invisible grid and each pixel is assigned a colour

VECTOR

Drawn by following a set of mathematical instructions

- Draw a circle
- radius: 6 pixels
- centre: 10, 10
- line thickness: 1 pixel

Vectors

Vectors are based on mathematical formul and can be scaled infinitely without any loss quality. Every line and shape has a value tha changes when the image expands.

Bitmaps

Bitmaps rely on a series of square blocks called pixels, arranged on a grid. The quality of the images depends on the amount of pixels per square inch. The more pixels, the better the quality.

Year 7 – Drama – Basic Drama Skills- Devising

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……."

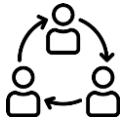
What needs to be included in a good **narration**? :

- 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 7 – Drama – Harry Potter and the Cursed Child

How to approach a script using prior context:

Ask yourself the following questions:

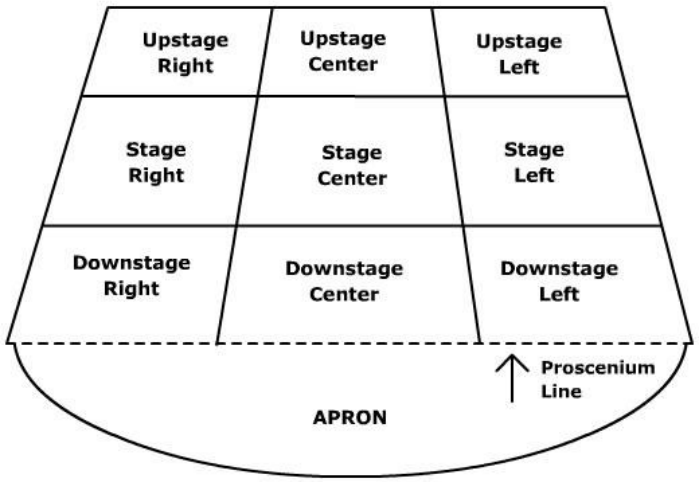
- Who is my character?
- What is their age?
- Where are they right now?
- Who are they with?
- Do you know what happened before this? If no, make an educated guess based on what is happening in the scene,

How to infer what a character is thinking or feeling through subtext:

"Yeah, I'm just great thanks, Ron" *She said sarcastically as she rolled her eyes.*

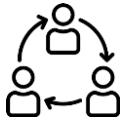
- Stage directions often tell us exactly what we are looking for.

Stage positions from the audience's perspective:



Steps to a good performance.

Collaborate as a group and discuss initial ideas



Use the script to decide on what happened before this scene

Use Facial expression, gestures, vocal tone and movement to create a believable character

Perform confidently

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.
Gestures	Using your hands to show the audience where to look through pointing, waving etc.
Projection	Using a loud volume to make sure you are heard.
Stage Positions	Where you stand on stage to determine your status at any given time.
Vocal Tone	Showing emotion through your voice.

Year 7 Music – What Makes a Good Song?

SONG STRUCTURE – How a song is made up of or divided into different sections (see below) and the order in which these sections occur. To work out the structure of a song, it's helpful to analyse the LYRICS and listen to a recording for the song (for instrumental sections).

INTRO – often shortened to 'intro', the first section of a song which sets the mood of the song and is sometimes, but not always, an instrumental section using the song's chord pattern.

VERSES – songs normally have several verses. Verses introduce the song's theme and have the same melody but different lyrics for each verse which helps develop the song's narrative and story. Songs made up entirely of verses are called STROPHIC.

CHORUS – occurs several times within a song and contains the most memorable HOOK/RIFF. The chorus relays the message of the song and is repeated with the same melody and lyrics each time it is heard. In popular songs, the chorus is often repeated several times towards the end of the song.

MIDDLE 8/BRIDGE – a section (often 8 bars in length) that provides contrasting musical material often featuring an instrumental or vocal solo using new musical material allowing the performer to display their technical skill on their instrument or voice.

Key Words

LYRICS – The words of a song, usually consisting of VERSES and a CHORUS.

HOOK – A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece. Hooks can be either MELODIC, RHYTHMIC or VERBAL/LYRICAL.

RIFF – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. Riffs can be rhythmic, melodic or lyrical, short and repeated.

MELODY – The main tune of the song often sung by the LEAD SINGER.

COUNTER-MELODY – An 'extra' melody often performed 'on top of' the main melody that 'fits' with it

TEXTURE – The layers that make up a song e.g., Melody, Counter-Melody, Hooks/Riffs, Chords, Accompaniment, Bass Line.

ORMISTON SWB ACADEMY

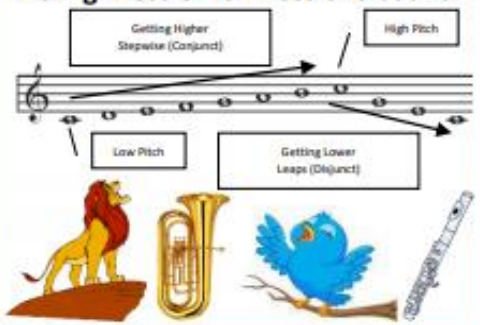
Year 7 Music – Building Bricks

BUILDING BRICKS

Exploring the Elements of Music

A. Pitch

The **highness** or **lowness** of a sound.



B. Tempo

The **speed** of a sound or piece of music.

FAST: *Allegro, Vivace, Presto*
SLOW: *Andante, Adagio, Lento*
GETTING FASTER – *Accelerando (accel.)*
GETTING SLOWER – *Ritardando (rit.) or Rallentando (rall.)*

C. Dynamics

The **volume** of a sound or piece of music.

VERY LOUD: *Fortissimo (ff)*
LOUD: *Forte (f)*
QUITE LOUD: *Mezzo Forte (mf)*
QUITE SOFT: *Mezzo Piano (mp)*
SOFT: *Piano (p)*
VERY SOFT: *Pianissimo (pp)*
GETTING LOUDER: *Crescendo (cresc.)*
GETTING SOFTER: *Diminuendo (dim.)*

D. Duration

The **length** of a sound.

SHORT → **LONG**

E. Texture

How much sound we hear.

THIN TEXTURE: *(sparse/solo)* – small amount of instruments or melodies.

THICK TEXTURE: *(dense/layered)* – lots of instruments or melodies.

F. Timbre or Sonority

Describes the **unique sound or tone quality** of different instruments voices or sounds.

Velvety, Screechy, Throaty, Rattling, Mellow, Chirpy, Brassy, Sharp, Heavy, Buzzing, Crisp, Metallic, Wooden etc.

G. Articulation

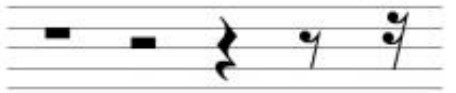
How individual notes or sounds are **played/techniques**.

LEGATO – playing notes in a long, smooth way shown by a **SLUR**.

STACCATO – playing notes in a short, detached, spiky way shown by a **DOT**.

H. Silence

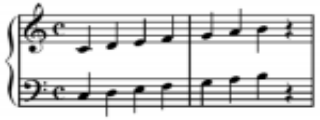
The opposite or absence of sound, **no sound**. In music these are **RESTS**.

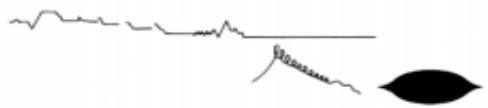


I. Notation

How music is **written** down.

STAFF NOTATION – music written on a **STAVE** (5 lines and spaces)





GRAPHIC NOTATION/SCORE – music written down using shapes and symbols to represent sounds.

Year 7 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

Processes

Drilling A process of cutting away material to create a hole	**Sanding** Removing saw lines to improve the surface texture	**Gluing and clamping** Securely joining materials together using adhesives	**Marking out** Using different tools to mark out measurements onto 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
			

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

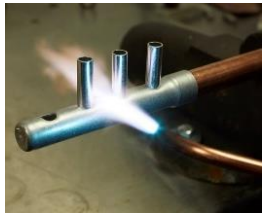
Year 7 What is Engineering?

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

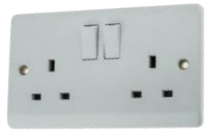
Processes

Sawing Using a sharp serrated edge to part materials	**Filing** Removing material to create a better surface finish or a different shape	**Engraving** To create a pattern or marking in a material, using small scratches	**Brazing** Using heat to permanently joining pieces of material together
			

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
			

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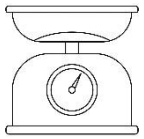
Year 7 – Food Technology

Equipment:

Weighing Scale



Each line represents 20g.

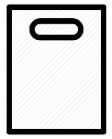
Oven Gloves

Personal safety, to protect our hands from heat.

Cooker

Hob
Grill
Oven

Chopping Board



Used for different foods to prevent spread of bacteria.

Chef's Knife

Used to prepare a range of ingredients

Knife Techniques:

Bridge Hold

An arch of a thumb and fingers.

Claw Grip

Tuck in fingers, use knuckles as a guide.

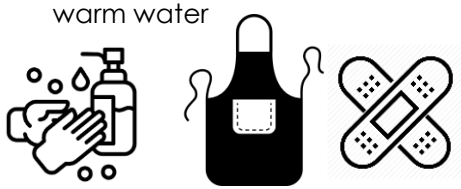
These knife techniques are used to keep us safe and to prevent cuts.

Knife Safety Rules:

1. Store knives in a knife block
2. Keep knives sharp, not blunt
3. Slice away from your hand and keep for your fingers clear of the blade
4. Carry a knife with the blade pointing downwards
5. Put knives on the draining board, not in the sink
6. Handle knives carefully when washing up
7. Use the bridge hold and claw grip when preparing ingredients

Personal Hygiene and Safety:

1. Wear an apron
2. Tie hair back
3. Remove jewellery
4. Cover cuts with a blue waterproof plaster
5. Wash hands with soap and warm water



Kitchen Hygiene and Safety:

1. Stack stools and remove hazards
2. Turn saucepan handles facing outwards
3. Use a damp dish cloth and anti-bacterial spray to wipe surface
4. Wear oven gloves

Food Hygiene and Safety:

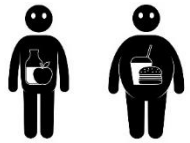
1. Wash fruit and vegetables with cold water
2. Check best before and use by dates
3. In a fridge, store raw meat on bottom shelf, cooked meats and ready-to-eat foods.

Keyword	Definition
Personal hygiene and Safety	Maintenance of ourselves to prevent cross-contamination
Kitchen hygiene and Safety	Maintenance of high standards of cleanliness and sanitation to prevent food contamination
Food hygiene and safety	Handling, preparation, and storage of food in ways that prevent food-borne illnesses
Hazard	A danger or risk
Control Measure	An action to prevent a hazard
Utensils	Tools we use commonly in a kitchen like a knife and fork
Bacteria	Organisms that are microscopic which can be harmful
Creaming	Combination of fat and sugar
Enzymic browning	Oxidation reactions that causes food to turn brown
Dextrinizarion	Starch is broken down into sugars, causing a brown colour when heated

Year 7 – Food Technology

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

1. To achieve and maintain a healthy body weight.

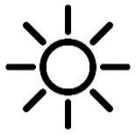


2. For growth and repair

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.

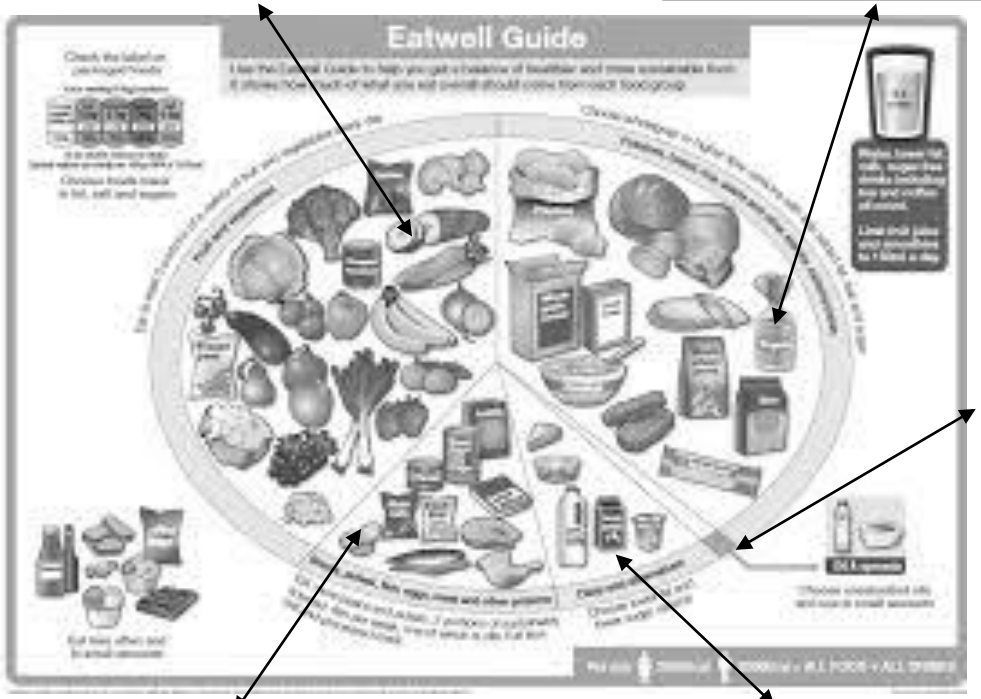
7. Drink plenty of water.

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 7 – French – Topic 2 – All about me (À propos de moi)

A. Quel âge as-tu ? How old are you ?

Verb	Number	Years	Connective	Noun + verb	Number			Month
J'ai I have	**1. un** **2. deux** **3. trois** **4. quatre** **5. cinq** **6. six** **7. sept** **8. huit** **9. neuf** **10. dix** **11. onze** **12. douze**	**ans** years	**et** and	**mon anniversaire, c'est le** my birthday is the	**1. premier** **2. deux** **3. trois** **4. quatre** **5. cinq** **6. six** **7. sept** **8. huit** **9. neuf**	**1. dix** **2. onze** **3. douze** **4. treize** **5. quatorze** **6. quinze** **7. seize** **8. dix-sept** **9. dix-huit** **10. dix-neuf**	**1. vingt** **2. vingt-et-un** **3. vingt-deux** **4. vingt-trois** **5. vingt-quatre** **6. vingt-cinq** **7. vingt-six** **8. vingt-sept** **9. vingt-huit** **10. vingt-neuf** **11. trente** **12. trente-et-un**	**janvier** Jan **février** Feb **mars** March **avril** April **mai** May **juin** June **juillet** July **août** August **septembre** Sept **octobre** Oct **novembre** Nov **décembre** Dec

B. Que penses-tu des membres de ta famille ? What do you think about the members of your family?

Opinion verb	Noun	Connective	Verb	Quantifier	Adjective
J'adore I love **J'aime** I like **Je préfère** I prefer **Je n'aime pas** I don't like **Je déteste** I hate	**mon père** my dad **mon beau-père** my stepdad **mon grand-père** my grandad **mon tuteur** my guardian **mon frère** my brother	**car** because **parce qu'** because	**il est** he is	**assez** quite **super** super **très** very **trop** too **un peu** a bit	**amusant** fun **bavard** chatty **généreux** generous **gentil** kind **effrayant** scary **ennuyeux** boring **méchant** nasty **têtu** stubborn
	ma mère my mum **ma belle-mère** my stepmum **ma grand-mère** my grandma **ma sœur** my sister		**elle est** she is		**amusante** fun **bavarde** chatty **généreuse** generous **gentille** kind **effrayante** scary **ennuyeuse** boring **méchante** nasty **têtue** stubborn

Year 7 – French – Topic 2 – All about me (À propos de moi)

C. Décris ta ville. Describe your town

Verb phrase	Article + Noun	Verb	Quanitifer	Adjective
Dans ma ville, il y a In my town, there is **Dans ma ville, il n'y a pas de*** In my town, there isn't * do not use un/une after de	**un centre commercial** a shopping centre **un centre sportif** a leisure centre **un cinéma** a cinema **un collège** a school **un marché** a market **un parc** a park **un stade** a stadium **une bibliothèque** a library **une gare** a train station **une piscine** a swimming pool	**c'est** it's **ce n'est pas** it isn't	**assez** quite **super** super **très** very **trop** too **un peu** a bit	**bruyant** noisy **inutile** useless **vieux** old **calme** quiet **génial** great **grand** big **moderne** modern **petit** small **utile** useful

D. Que fais-tu pendant ton temps libre ? What do you do in your free time?

Time phrase	Verb	Preposition + noun	Connective	Verb	Adjective
Lundi Monday **Mardi** Tuesday **Mercredi** Wednesday **Jeudi** Thursday **Vendredi** Friday **Normalement** Normally **Tous les weekends** Every weekend	**je joue** I play **nous jouons** we play **je ne joue pas** I don't play **je fais** I do **nous faisons** we do **je ne fais pas** I don't do	**au basket** basketball **au foot** football **au tennis** tennis **à la pétanque** petanque **de la boxe** boxing **de la danse** dancing **de la natation** swimming **de l'équitation** horse riding **du karaté** karate **du shopping** shopping **les devoirs** homework	**et** and **car** because **mais** but **cependant** however	**c'est** it's **ce n'est pas** it isn't	**amusant** fun **bon pour la santé** good for your health **divertissant** entertaining **génial** great **relaxant** relaxing **dangereux** dangerous **ennuyeux** boring **fatigant** tiring **nul** rubbish

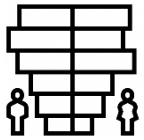
E. Qu'est-ce que tu as fait le weekend dernier ? What did you do last weekend?

Time phrase	Perfect tense	Preposition + noun	Connective	Perfect tense	Preposition + noun	With + family member
Le weekend dernier Last weekend	**j'ai joué** I played **nous avons joué** we played	**au basket** basketball **au foot** football **au tennis** tennis **à la pétanque** petanque	**et** and	**j'ai fait** I did **nous avons fait** we did	**de la boxe** boxing **de la danse** dancing **de la natation** swimming **de l'équitation** horse riding **du karaté** karate **du shopping** shopping les devoirs homework	**avec ma famille** with my family **avec ma mère** with my mum **avec ma sœur** with my sister **avec mon père** with my dad **avec mon frère** with my brother **avec mes parents** with my parents

Year 7 – Geography – Topic 3 Living in Wolverhampton

Populations around the UK

- Population sizes in the UK can be different depending on where you live.
- Population characteristics (e.g. ages and gender) can be shown using population pyramids.
- Rural areas often have a sparse population density where there are not many people.
- Urban areas have a high population density (or a dense population) where lots of people live within a certain area.

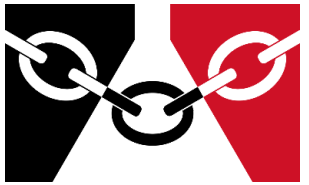


Push and Pull Factors

- Push factors are reasons that make you want to leave a place (e.g. leaving the countryside).
- Pull factors are reasons that attract you to a new place (e.g. make you want to go to an urban area).

What is the Black Country?

- The Black Country is a region of the West Midlands covering Sandwell, Dudley, Walsall and Wolverhampton.
- It gained its name in the 19th century due to the smoke from the many factories that were in the area.



Economic Job Sectors

- Primary – getting raw materials, e.g. farming, mining
- Secondary – using raw materials to make something, e.g. manufacturing
- Tertiary – providing a service to people, e.g. teaching, retail assistants
- Quaternary – research and development, e.g. scientists

Key Characteristics of Wolverhampton

- Crime rates vary across Wolverhampton with higher crime in the east and centre compared to the west.
- Quality of life also varies in a similar trend, suggesting that crime rates impact people's quality of life.
- Land use has changed over time in Wolverhampton as job sectors have moved from primary and secondary in the 19th and early 20th century to the tertiary sector.

Examples of Push and Pull Factors

Push Factors	Pull Factors
• Poor living conditions • Conflict/War • Natural disasters • High levels of crime • Flooding • Lack of jobs • Lack of education • High levels of pollution • Lack of services (e.g. hospitals)	• Good healthcare • Good weather/climate • Lots of shops, cafes, services • Low levels of crime • Lots of jobs • Better education • Better quality of life/standard of living

Keyword	Definition
Census	an official count or survey, especially of a population – every 10 years
Choropleth maps	A map which uses different colours/shades within areas to show the average values of a particular quantity in that area.
Diverse	Showing a variety, differences.
Economic Sectors	The categories that different jobs are in.
Immigrant	A person who comes to live permanently in a foreign country.
Immigration	The action of coming to live permanently in a foreign country,
Migrant	A person who moves from one place to another.
Population	All the people living in a particular place.
Population Density	The number of people living within a square mile – it can either be high or low,
Population Pyramids	A graph showing the amount of people in age groups and gender within a population.
Projected	An estimate for the future based on current information and patterns.
Pull Factor	Reasons that attract someone to a new place.
Push Factor	Reasons that force an individual to leave their home.
Regeneration	Regeneration means improving old industrial areas or outdated housing to bring positive economic change.
Rural	Countryside.
Urban	Built up areas, e.g. towns and cities.

Year 7 – Geography – Topic 3 Living in Wolverhampton

Wolverhampton census data

- Wolverhampton is in the West Midlands.
- Wolverhampton's population is around 250,000 and is very ethnically diverse population with an average age of 39 years.
- Land use is how the area is used e.g. residential, retail or industry.
- Wolverhampton's urban area has increased since the 1920s with an increase in retail and hospitality in the city centre.
- Bilston East has a younger population than Tettenhall, has more people with 'bad'/'very bad' health, has more people unemployed, most common jobs include skilled traders/workshop/kitchen
- Bilston East shows indicators of a lower quality of life compared to Tettenhall Wightwick, with significant variation in employment, education, and life expectancy; despite still being part of the same city of Wolverhampton.

Regeneration in Wolverhampton

- Regeneration means improving old industrial areas or outdated housing to bring positive economic change.
- Regeneration strategies can involve the building of new shopping centres, improving transport links or construction of new housing.
- Due to the closure of factories and new transport technology such as trains, cars and lorries, the canal system in Wolverhampton is no longer used to transport goods
- This has led to areas becoming abandoned or derelict
- Regeneration strategies have been used in Wolverhampton such as the re-design of Wolverhampton train station.
- Future regeneration strategies include a 10-year plan to develop underused land around the city centre to improve access and connecting the city centre to Molineux with a high street of retail, hospitality and education.
- Regeneration strategies can be successful and unsuccessful.
- The regeneration of Wolverhampton train station will improve service efficiency. Predicting the success of future regeneration can be difficult and evaluation of potential advantages and disadvantages is needed

Year 7 – Geography – Weather and Climate

Weather or Climate?

- Weather is what is happening in the atmosphere every day – it can change on an hourly or daily basis.
- Climate is the average weather conditions of a place over time – it doesn't change from day to day.
- These terms can't be switched around as they mean different things!

Air Pressure

- The atmosphere is pushing down on the Earth's surface all the time – we just can't feel it.
- Low pressure systems are created when warm air rises. Evaporation causes clouds to form and, therefore, rainfall is dominant.
- High pressure systems are associated with cool sinking air. No clouds are formed and fine (sunny) weather is associated with this.

Extreme Weather

Storms - the UK experiences regular storm events due to its Maritime (coastal) climate

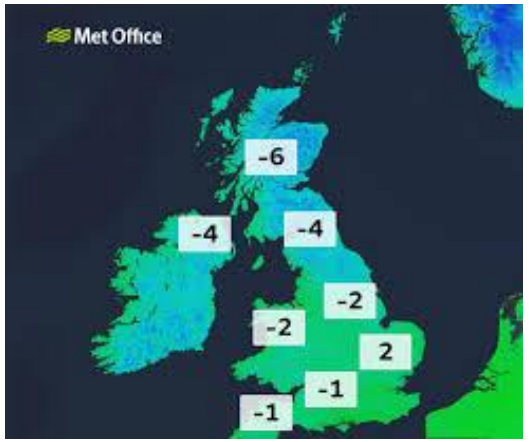
Flooding - during periods of heavy rainfall the UK experiences flooding in its river systems and coastal flooding from storm events

Heatwaves - the UK can be influenced by southern continental air masses that bring extended periods of warm, dry weather to the UK.

Beast from the East UK (2018) was a storm that brought cold temperatures and snow to the UK.

Choropleth Maps of the UK

- The choropleth maps below show temperatures of the UK in different seasons.
- The first map shows the UK in summer, with much of the UK experiencing warmer temperatures.
- The second map shows the UK in winter, experiencing freezing temperatures.
- In both maps, the north of the UK (Scotland and Northern Ireland) are experiencing cooler temperatures than the south-east of the UK.



Keyword	Definition
Air masses	Huge bodies of air that can affect the weather conditions of a place.
Atmosphere	The envelope of gases surrounding the Earth.
Choropleth maps	A map which uses different colours/shades within areas to show the average values of a particular quantity in that area.
Climate	The average weather conditions over a long period.
Continental	Air masses that form over land.
High pressure	When cool air sinks to the Earth's surface, leading to drier conditions.
Isobar	A line on a map connecting points that have the same atmospheric pressure.
Isohyet	A line on a map connecting points that have the same amount of rainfall.
Isoline	A line on a map connecting points that have the same amount of a weather condition. Also known as isopleth.
Low pressure	When warm air rises from the Earth's surface, leading to wetter conditions.
Maritime	Air masses that form over oceans.
Polar	Air masses that form over higher latitudes, e.g. Greenland.
Precipitation	When any form of moisture falls to the ground, e.g. rain, sleet, hail, snow.
Prevailing wind	A wind from the direction that is the most usual.
Relief rainfall	Rainfall which happens when air is forced to cool as it rises over higher relief, e.g. hills.
Tropical	Air masses that are from warmer areas, e.g. northern Africa.
Weather	The day-to-day conditions of the atmosphere.

Year 7 – Geography – Weather and Climate

How has the UK's climate changed over time?

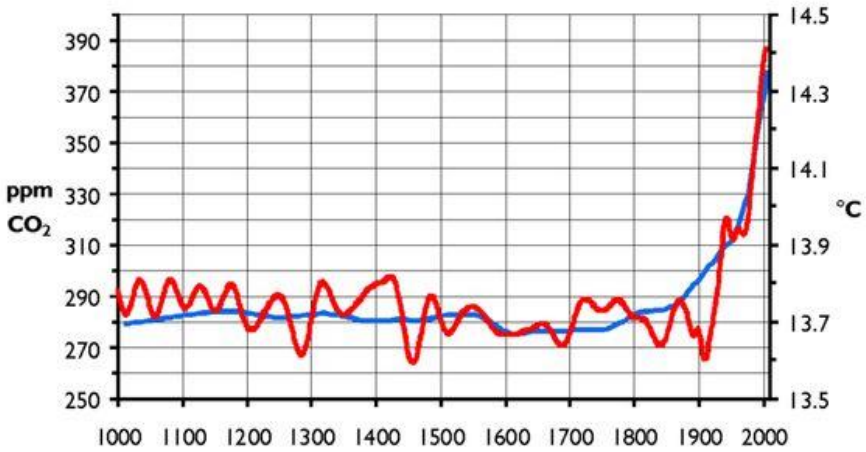
- The climate in the UK hasn't always been the same - there have been changes in the UK's climate that have been recorded and investigated.
- 20,000 years ago, the UK was in an ice age - the Earth's average temperature was lower than normal and glaciers spread. The UK was covered by an ice sheet and tundra (a cold region where the ground is permanently frozen)

Water cycle

- Evaporation = water is heated from a liquid to water vapour and rises.
- Condensation = water vapour cools and begins to turn back into a liquid and stored as clouds.
- Precipitation = water falls from clouds as rain, snow, hail, sleet.
- Surface run-off = water runs along ground.
- Interception = leaves and plants intercept precipitation before it reaches the ground.
- Infiltration = water is absorbed into the soil
- Percolation = water drips through bedrock.

What is happening to climate today?

- The UK's climate today is largely influenced by the global climate.
- Since the Industrial Revolution in the mid-18th century, there has been an increase in the amount of pollution, impacting the climate as it leads to global warming.
- Global warming is the gradual increase in the overall temperature of the Earth's atmosphere, which is linked to the increased levels of pollution (e.g. carbon dioxide, methane, nitrous oxide).



- In the graph above, the red line shows average global temperature and the blue line shows the amount of carbon dioxide in the atmosphere.
- As more carbon dioxide has been released into the atmosphere, the average global temperature has increased. This shows how human activities (e.g. driving, factories) has impacted the climate and global warming.

What are the negative impacts of climate change?

- Global warming can lead to climate change.
- Climate change is where there is a change in global, or regional, climate patterns. More recently, this is linked to the increased amount of carbon dioxide in the atmosphere.

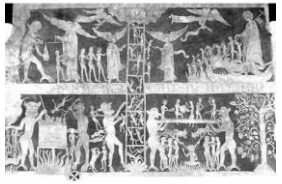
Impact	How does it impact?
Increased storms	Storms are likely to increase as global temperatures increase. This can cause flooding through intense rainfall, and the storms will become stronger causing more damage.
Flooding	Sea levels could rise, as the ice caps melt, which would lead to flooding in low-lying areas.
Drought	As extreme weather increases, a drought (less rainfall than expected) could occur causing crops to fail.
Increased demand for water	As summers may become hotter, this could lead to an increased demand for water and put pressure on to water supplies.
Animal species	Some animal species could become extinct as the climate conditions are no longer suitable for them to live in. Climate change could also lead to a shortage in food supply for them.
Increased risk of disease	As temperatures increase, areas of the UK could become exposed to diseases that currently only affect warmer areas, e.g. malaria.

Year 7 – History – What was it like to live in Medieval England?

How religious were the medieval people?

- In the Middle Ages, almost everyone in Britain believed in God.
- People believed that heaven and hell were real places.
- People in medieval Britain followed **Roman Catholic Christianity**.
- They believed that the Pope, who lived in Rome had been given authority by God.
- The Pope led all the people who worked for the Church – including bishops, priests and monks.
- In the Middle Ages, the Church provided for the religious aspects of people's lives – baptism of babies, marriages, confession, the last rites for the dying and burying the dead.
- The church was the **heart of the community** - as a meeting place, ceremonies, prayer, festivals and fairs.
- The Church played a big part in government: Bishops sat in the House of Lords. They could raise an army for the king in times of war.

Doom paintings
A painting that depicted heaven and hell and were used in churches for people who could not understand Latin.



- Monasteries and nunneries looked after the old and sick, provided somewhere for travelers to stay, gave alms to the poor and sometimes looked after people's money for them.
- Monks could often read and write when many other people could not, so they copied books and documents and taught children.
- Monasteries often had libraries.

What was life like in a medieval village?

- In the Middle Ages nearly everyone lived in a village.
- There were no shops in these villages and **villeins** (the people who lived in the village) could only go to the nearest town if the lord of the manor let them.
- Appearance of the Village: Each village was surrounded by 3 open fields.
- They had no fences or hedges in them. Instead, these fields were divided into strips and separated by earth banks.
- Everyone got a share of the land in the village.
- Each year one of the fields was left fallow. This meant that no crops were grown in it to help the soli recover. Animals would be allowed to graze there, the droppings acting as fertilizer.
- A peasant's hut was made of **wattle** and **daub**, with a thatch roof but no windows.
- Women in the village worked as hard as the men. They cook, clean and look after the children, fetch water, make clothes and help in the fields when needed.

Living in a medieval town:

•A medieval town would seek a **charter** giving it the right to become a borough. The rich **merchants** would then be allowed to choose a mayor and hold a market.
•Houses were made of a wooden frame, with the gaps filled with woven strips of wood, known as 'wattle', and 'daubed', with clay and horse-dung. Most ro ofs were thatch.
•Medieval shops were workshops, open to the street for customers, with the craftsman's house above. Because few people could read, shops signs were a huge model showing the craftsman's trade. People of the same trade often worked in the same street.
•The streets of a medieval town were narrow and busy. They were noisy, with the town crier, church bells, and traders calling out their wares. There were ma ny fast food sellers, selling such things as hot sheep's feet and beef-ribs.

Year 7 – History – What was it like to live in Medieval England?

Manor house	A landowner (a knight for example) lived her with his family; all the peasants worked on his land and paid taxes. The manor house was strong, secure and comfortable.
Tithe barn	Peasants had to give 10 per cent of what they grew to the priest; this was called a tithe and the produce was kept here.
Villein	A peasant who worked for his lord in return for land.
Wattle and daub	A medieval building material made of interwoven sticks covered with mud or clay
Charter	An official document given by a ruler or government which sets out a town's or business's rights.
Monks and Nuns	A religious person who has taken vows in order to lead a religious life.
Monastery	A building or buildings occupied by a community of monks living under religious vows.
Chronicles	A written account of important historical events, usually written by monks
Buboes	A swollen, puss-filled lump in the armpit or groin. They could fill with a deadly, smelly black goo. If they burst inside you, the toxin would kill you
Apothecary	A person who prepared and sold medicines
Peasant	A poor person of low social status who works on the land.

What about her story?

- The law, set by men, greatly limited the freedom of women.
- Men held all the top jobs in the Middle ages – kings, knights, lawyers, bishops and even town and village officials.
- Women were not allowed to: marry without their parents' consent, could not own business without special permission, divorce their husbands or own property of any kind unless they were widows.
- A lot of the evidence from Middle Ages is from **monks** - Monks had no contact with women so they were hardly mentioned.

How deadly was the Black death?

The Black Death was an infamous **plague** causing an estimated 20 million deaths ir Europe.

What were the causes of the Black Death?

We know today that he Black Death was caused by fleas that lived on black rats.

However in the Middle Ages there was no scientific understanding of illness and disease.

They used several different ways of explaining the cause of the Black Death: • Caused by a miasma – an 'evil air'. • a punishment by God for the sins of the people. • A witch had cast a spell on the village. • The Jews of England had poisoned the wells.

There were 3 different types of plague

Bubonic, Pneumonic and Septicaemic

How would you be punished in Medieval England?

- Criminals were put in the stocks or the pillory.
- These were wooden boards with holes for feet, hands or head.
- Medieval punishments were cruel, and crimes such as theft were punished by hanging.

How smelly was medieval England?

- Medieval towns did not have systems of **sewers or water pipes** like Rome had.
- Medieval towns were probably **filthy**.
- Garbage and human waste was thrown into the streets. Houses were made of wood, mud and dung.
- Rats, lice and fleas flourished in the rushes strewn over the clay floors of people's houses, often changed only once a year.

Who healed the sick in medieval England?

- The Middle Ages was a grim time to be poorly.
- Medieval doctors **did not have a clue** what caused disease.
- Most doctors still believed the Greek theory from Galen, a doctor during the Roman Empire, that you became ill when the 'Four Humours' became unbalanced
- Treatments were used that would seem crazy to us today. For example: **bleeding**, applying **leeches**, **smelling** strong posies or causing purging or vomiting, cutting open buboes (plague sores), draining the pus, and making the patient hot or cold, for example by taking hot baths, **trepanning** - cutting a hole in the skull, praying, or encouraging people to whip themselves to try and earn God's forgiveness.

ORMISTON SWB ACADEMY

Year 7

History

The Norman Conquest Year 7

5th Jan, 1066	6th Jan, 1066	25th Sept, 1066	14th Oct, 1066	25th Dec, 1066	1069- 1070	1085	1087
King Edward the Confessor dies	Harold Godwinson is crowned King of England	Harold wins Battle of Stamford Bridge	William, Duke of Normandy wins the Battle of Hastings.	William is crowned King of England	William orders the Harrying of the North	William orders the Domesday Book	Conqueror dies

Britain before 1066

Anglo-Saxons: People who lived in Britain from the 5th century. They included people from Germanic tribes who migrated to the island from Europe.

Edward the Confessor: 1042-1066

- Edward became king of England in 1042 after his half-brother died. Before this he had been living in Normandy.
- Edward married but had no children. It was not clear who Edward wanted to be king after him. **For a king to die without an heir was a disaster!**

Potential heirs to the English throne in 1066: Who should become king?

Harald Hardrada
Viking King of Norway
Vikings had ruled Britain before. Most feared warrior in Europe – Hardrada means 'hard ruler'.

VS

Harold Godwinson
Anglo-Saxon. One of the most powerful men in England.
Harold was a brave and respected solder with a tough strea'

VS

William of Normandy
Duke of Normandy, France.
Edward had supposedly promised that William should become King of England

The Battle of Stamford Bridge

King Harold Godwinson fought King Harald Hardrada and Godwinson's brother Tostig for the throne.

The Bayeux Tapestry shows Godwinson's death with an arrow through his eye.

Armies at the Battle of Hastings

Harold's army
Harold's army was made up of professional soldiers and conscripts, peasant farmers who were forced to join the army and fight.

William's army
His soldiers were well trained and well equipped.

Why did William win the battle of Hastings?

Strategy
William had well trained and professional soldiers.
Harold's army was tiera and reduced in size following the Battle of Stanford Bridge.
William showed his face on the battlefield.
The Saxons broke their shield wall.

Luck
The weather changed allowing William to travel.
Harold had to fight the Vikings first this gave William an advantage.

What changes did William make to England?

The Feudal System

William also set up the **Feudal System** as a form of controlling the population through land and money.

William is at the top of the system, as he holds all the land and money, which he gives to the Barons.
This forced the Barons to give William their taxes, soldiers and promises of loyalty. They promise William their money, soldiers and loyalty.
They give the land to the Knights in return for loyalty and military service.

Finally the knights give the land to the peasants. The peasants farm the land and give food, money and services back to the knights.

The Domesday Book

In 1086, it recorded information about each person who lived in England.
They wanted to know:

- How many people there was
- How much land they owned
- How many animals they had

From this information William could charge people taxes.

The harrying of the north

William crushed rebellions against his rule by destroying villages, towns and farms in the North of England.

Castles

William also kept control by building castles.

Motte and Bailey – The first castles were built to help fight against rebellions. They were built quickly and made out of wood, meaning that they were not very strong, and could be easily destroyed.

Castles

Stone Keep – This castle was now made out of stone and had towers as a form of defence. The main part of the castle was the Keep, a large square tower, used as the main defence.

Parts of a castle

Keep	Drawbridge
Motte	Palisade
Bailey	Moat

Key Words

Conquest	Taking an area by using force
Medieval	The period between 1066-1500
Cavalry	William's soldiers that fought on horses
Harrying	To completely destroy
Chronology	Putting events in the order that they happened
Century	100 years
Anglo-Saxons	People that lived in England before the Norman Conquest
Normans	People from the Normandy region of France, led by King William
Bayeux Tapestry	An embroidery telling the story of the Norman Conquest
Hierarchy	Where people are ranked by their wealth and power
Noble	A person in the nobility who has a title and owns land
Peasant	The poorest person in society
Heir	A person next in the line for the throne through bloodline
Rebellion	An act of armed resistance to an established government or leader.
Taxes	The government demand money from the people.
Harrying	Persistently carry out attacks on (an enemy or an enemy's territory).
Monarch	A royal head of state such as a King or Queen.
Oath	To swear a promise, often said to be witnessed by God
Feudal system	The structure of Medieval society

Who were England's Medieval monarchs?

Medieval monarchs believed that they had been appointed by God. People in the Middle Ages obeyed the monarch because they believed the king or queen was chosen by God to rule over them

- Monarchs gained legitimacy because they inherited their power from a previous monarch
- Female monarchs were seen as weak because they could not lead an army into battle
- Monarchs could gain power and legitimacy by showing their military strength by winning battles
- Monarchs needed the support of powerful people, such as the barons or the Pope
- Monarchs needed to be popular. Unpopular monarchs could be rejected or face rebellion

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Chronology	
Harold Godwinson	Jan- Oct 14th 1066
William I	1066- 1087
William Rufus (II)	1087-1100
Henry I	1100- 1135
Stephen	1135 - 1154
Henry II	1154- 1189
Richard I	1189-1199
John	1199-1216
Henry III	1216- 1272
Edward I	1272- 1307
Edward II	1307 – 1327
Edward III	1327- 1377
Richard II	1377-1399

The Murder of Thomas Becket

- In the Middle Ages, it was unclear whether the King had more power than the Church.
- This was demonstrated in the story of Thomas Becket: In 1162, Henry II named his friend Thomas Becket as Archbishop of Canterbury.
- Henry wanted Becket to force priests to use the King's Courts, instead of getting away with light punishments in the church courts.
- He also wanted Becket to help him control the bishops.
- When Becket refused to do this, the two men fell out.
- In a rage, Henry shouted "Will no one rid me of this troublesome priest?".
- A group of knights overheard him and murdered Becket.
- Henry was horrified when he heard of Becket's death and ordered monks to whip him to show he was sorry.

Year 7 – History – Could medieval monarchs always do whatever they wanted?

King John- Why was John unpopular?

- John was forced to introduce a new land tax to repay money that his brother, Richard I, had borrowed to pay for the Crusades.
- The French invaded English territory in Normandy. John tried to win it back but lost the Battle of Bouvines in 1214. He was nicknamed 'Softsword'
- John tried to force the Church to accept his choice for Archbishop. In response, the Pope excommunicated John and stopped church services in England.

Baron's Revolt 1215

- In May 1215, 40 English barons rebelled against King John. With support from the French and Scottish, they formed an army and captured London.
- John met the rebels at Runnymede, near London and agreed to Magna Carta.

Magna Carta

- Magna Carta – or 'Great Charter' – was a document signed by King John limiting the power of kings. It was the first time that a set of rules had been written for the king.

The most important parts:

- Gave all free men the right to trial by jury
- Limited the amount of tax the barons had to pay
- Limited the power of the King over the Church

Year 7 – History – Could medieval monarchs always do whatever they wanted?

Monarch	A head of state (normally a King, Queen)
Prerogative	A right or privilege that only the monarch could use
Rebellion	When ordinary people rise up against government.
Poll Tax	Money that everyone had to pay (Tax)
Church courts	Places where church men were punished
Legitimate	Proper and right, accepted by everyone
Great Council	A group, including the king and his barns, that met to discuss how the country should be run. Simon de Montfort called the first meeting in 1265 which became the first parliament.
Magna Carta	A document or Great Charter that set out English peoples' rights. King John was forced to sign it in 1215 agreeing that kings had to obey the law
The Provisions of Oxford 1258	Barons, fed up with high taxes produced a document for the King to sign
Parliament	During Henry III's reign, Parliament became increasingly important. Parliament was the name given to the occasions when all the barons met with the king and each other, usually at Westminster, but also elsewhere. The idea grew up after Magna Carta that the king could only gain extra taxes by asking the barons first.
The Lords	Rich barons and bishops who met in the House of Lords. The right to attend passed from father to son.
The Commons	Men chosen to be part of parliament. The men voted for were usually the richer people of the town or land owning knights.

The development of English parliament

- The first Parliament was called in 1265 during the reign of Henry III.
- It included not only the Kings council but also two ordinary people from each large town and two knights from each county in England.
- These new meetings or Parliaments could collect money for the king (taxes) , agree to new laws and give advice to the king.

Why did the peasants revolt in 1381?

- Most people in England were peasants. They grew all the food but owned no wealth and lived in poverty. They were led by John Ball, a priest who questioned this inequality.
- In 1348, the Black Death killed 50% of the population. The few peasants who survived could demand higher wages and this led to increasing tension between rich and poor.

- In 1381, the government introduced a new tax – the poll tax. Everyone paid the same. The peasants thought it was unfair that a rich man should pay the same as them

What happened in the peasants revolt?

- 50,000 rebel peasants marched to London and camped on Blackheath, south of the River Thames

- The 14 year old king, Richard II, took his barge down the Thames to meet the rebels but turned back when he saw the size of their force,
- In response to this rejection, the rebels attacked the city. They broke in to the Tower of London and executed Sir Robert Hales, the king's unpopular advisor, and the Archbishop of Canterbury.

- Richard finally met Wat Tyler, the leader of the rebels, at Smithfield. The king agreed to Tyler's demand for a Magna Carta for all people – making all men equal under the king.
- When Tyler was stabbed and the violence seemed ready to start again, Richard calmed the situation by saying "You shall have no other captain but me." The rebels went back home.
- Richard went back on his word. He did not make everyone equal under the king. The leaders of the rebellion were executed

Year 7 – PRE – Term 2: How useful is scripture in a time of need?

Key Words:
Scriptures: The sacred writings of a religion
Guru Granth Sahib: The central religious scripture of Sikhism,
Punjabi: The language in which the Guru Granth Sahib is written
Chauri: A fan waved over the holy book made from Yak's hair
Qur'an: Holy book of Muslims
Prophet: Messenger from God
Revelation: When a human being receives knowledge from a divine source
Torah: Holy book of the Jews.
Commandments: Rules or laws which Jews must follow
Ark of the Covenant: Where the Torah is kept in the synagogue
Yad: A pointer used to point to the writing in the Torah as you are not allowed to touch it.

How do Islamic Scriptures teach Muslims to live their lives?

- The Qur'an is the holy book for Muslims, **revealed in stages to the Prophet Muhammad over 23 years.**
- Muhammad could not read or write, but was visited by the Angel Jibril and told to 'recite'. Though he said he could not read, he was able to still recite the words of the Qur'an.
- The Qur'an is seen as the **sacred word of God**, and Muslims believe it **corrects any errors in previous holy books.**
- The Qur'an is written in **Arabic**
- At the time of the revelation of the Qur'an, books were not readily available and so it was common for people to **learn it by heart**.
- Committing the Qur'an to memory helped for it to pass down over time, and any person who is able to accomplish this is known as a **hafiz**.
- Muslims must wash before touching the Qur'an. They must **never place it on the floor, and it must be kept on the highest shelf to show its importance**.
- The **Hadith are the Prophet Muhammad's teachings about how to live life** according to the Qur'an. If a Muslim is facing a difficult situation, they might look to the Hadith to see if the Prophet ever had to deal with a similar issue.
- So, the Qur'an are the words of God, and the Hadith are the sayings of the Prophet Muhammad.

Key quotes from the Qur'an.
Think about how a Muslim may live their life, based on these quotes:
*'...you should show courtesy and be cordial with each other, so that **nobody should consider himself superior to another** nor do him harm'.*
*'It is **better for a leader to make a mistake in forgiving** than to make a mistake in punishing'*
*'**God does not judge you according to your bodies and appearances**, but He looks into **your hearts** and observes your deeds'.*
*'**Do not turn away a poor man**...even if all you can give is half a date. If you love the poor and bring them near you...God will bring you near Him on the Day of Resurrection'.*

What an we learn from the Sikh scriptures?

How do Sikhs treat the Guru Granth Sahib?
- In Sikhism, there were 10 human Gurus (teachers) who taught people about God and how to live.
- When Guru Gobind Singh, the 10th Guru, was near death, he declared that there would be no more human gurus, but that **the Guru Granth Sahib, the holy book, would now be the 'Living Guru'** and would continue to teach Sikhs today.
- Sikhs **treat the book as though it were a human guru;** they give it its own room in the Gurdwara, use a chauri to fan it, and they do not point their feet towards it. They bow to it and place it on a throne in the Gurdwara called a Takht.

What does the Guru Granth Sahib teach?
- The Guru Granth Sahib contains **teachings about God, stories about the lives of the Gurus, hymns and key teachings** about how Sikhs should live their lives.
- It has writings from Hindus, Muslims and Sikhs within it.
- Some of the key teachings in the book are those about **equality**, as Guru Nanak, the founder, taught about the importance of everyone being equal.

Key quotes from the Guru Granth Sahib.
Think about how a Sikh may live their life, based on these quotes:
*'All are made of the **same clay**'*
*'Show **kindness and mercy** to all life'*
***'We are the sons of the one God…** there is no Hindu and no Muslim'*

What are the most useful elements of Jewish scripture today?

The complete selection of Jewish scripture (holy text) is called the **Tenakh.**
The Tenakh is compiled of 3 sections:

Torah
- This is the **most important section**
- It contains the 613 rules (mitzvoth) that Jews must follow. Within these rules are the **10 Commandments**.
- The Torah plays a big part in the lives of Jews today as it is believed to be the word of G-d. **All Jews use the Torah to help guide them in their lives**, but some Jews use the Torah more strictly than others.
- The words of the Torah are written in **Hebrew**, and are written in scrolls which are kept in a place called the **Ark** which is in the synagogue. They cannot be touched, so a **yad** (pointer) is used to help to follow along.

Nevi'im
- The Nevi'im contains the **history of the Jewish people**, for example the life of the prophets, who were important teachers.

Ketuvim
- These are writings which contain many stories and themes.
- Included within the Ketuvim are **hymns, for example the Psalms**, which is a collection of writings in praise of G-d.

Key Quotes from the Torah:
Think about how a Jewish person may live their life, based on these quotes:
'You shall have no other Gods before me'
'You shall not take the name of G-d in vain'
'Remember to keep the Sabbath day holy'
'Do not commit murder'