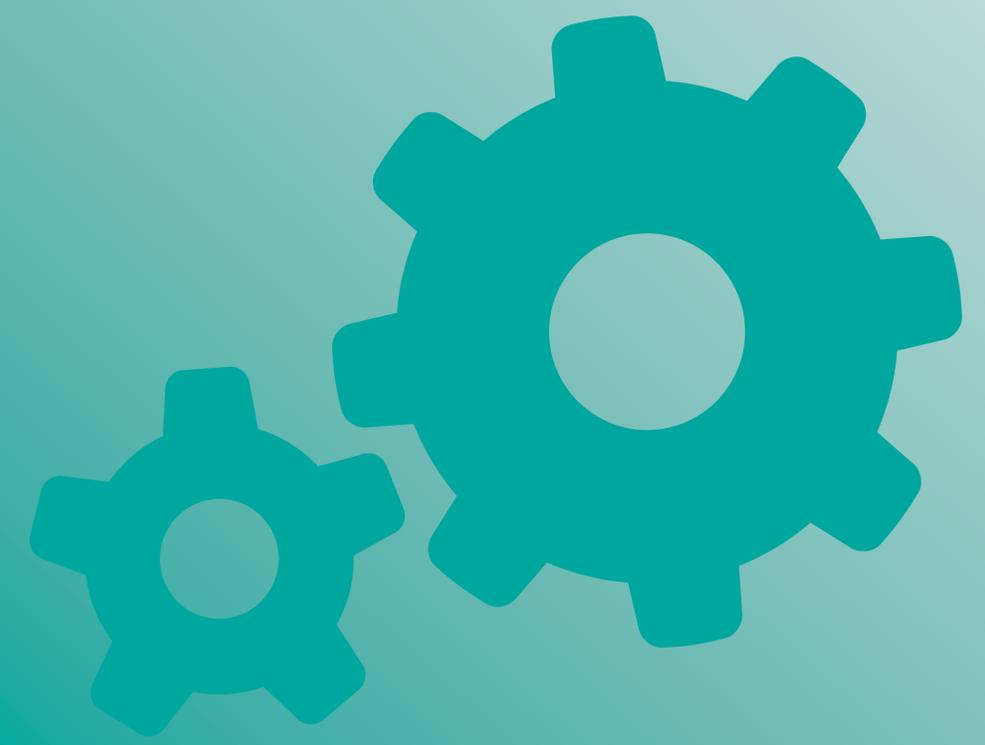


Maths





Number properties 1

Place Value											
Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths	Ten-thousandths	Hundred-thousandths
100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$	$\frac{1}{10,000}$	$\frac{1}{100,000}$

Multiplying and Dividing by Powers of 10

Instruction

HM: 13- 16

Multiply by 10	Digits move 1 place to left
Multiply by 100	Digits move 2 places to left
Multiply by 1000	Digits move 3 places to left
Divide by 10	Digits move 1 place to right
Divide by 100	Digits move 2 places to right
Divide by 1000	Digits move 3 places to right

Word	Definition
Sum	To add up
Total	To add up
Difference	To subtract
Product	To multiply
Quotient	To divide

Inequalities

<	>	≤	≥
Is less than	•Is greater than	•Is at most	•Is at least
Is fewer than	•Is more than	•Is no more than	•Is no less than
		•Is less than or equal to	•Is greater than or equal to

7 x Table

1 x 7=	7
2 x 7=	14
3 x 7=	21
4 x 7=	28
5 x 7=	35
6 x 7=	42
7 x 7=	49
8 x 7=	56
9 x 7=	72
10 x 7=	70
11 x 7=	77
12 x 7=	84

8 x Table

1 x 8=	8
2 x 8=	16
3 x 8=	24
4 x 8=	32
5 x 8=	40
6 x 8=	48
7 x 8=	56
8 x 8=	64
9 x 8=	72
10 x 8=	80
11 x 8=	88
12 x 8=	96

12 x Table

1 x 12=	12
2 x 12=	24
3 x 12=	36
4 x 12=	48
5 x 12=	60
6 x 12=	72
7 x 12=	84
8 x 12=	96
9 x 12=	108
10 x 12=	120
11 x 12=	132
12 x 12=	144



Number properties 1

B Brackets	$10 \times (4 + 2) = 10 \times 6 = 60$
I Indices	$5 + 2^2 = 5 + 4 = 9$
D Division	$10 + 6 + 2 = 10 + 3 = 13$
M Multiplication	$10 - 4 \times 2 = 10 - 8 = 2$
A Addition	$10 \times 4 + 7 = 40 + 7 = 47$
S Subtraction	$10 + 2 - 3 = 5 - 3 = 2$

Estimation

Estimations are useful – especially when using fractions and decimals to check if your solution is possible.

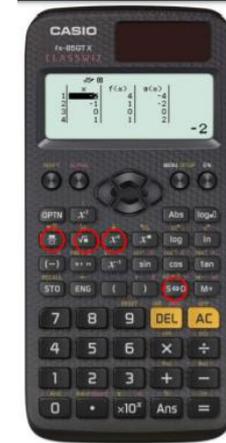
Most estimations round to 1 significant figure

Estimations are useful – especially when using fractions and decimals to check if your solution is possible.

$$210 + 899 < 1200$$

This is true because even if both numbers were rounded up, they would reach $300 + 900$.

The correct estimation would be $200 + 900 = 1100$.



Key buttons on your calculator

$\frac{\square}{\square}$: Fraction button

x^2 : to square a number

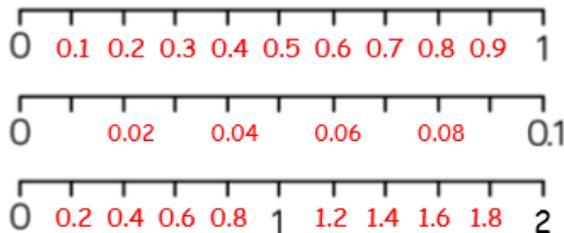
$\sqrt{\square}$: Square root

\leftrightarrow : Changes an answer to a decimal

Word	Definition
Integer	A whole number
Decimal	A number containing a decimal point
Ascending	Smallest to largest
Descending	Largest to smallest

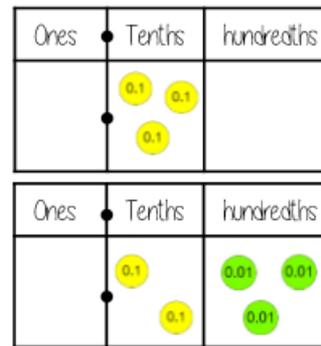
Decimal intervals on a number line

One whole split into 10 parts makes tenths = 0.1
One tenth split into 10 parts makes hundredths = 0.01



Comparing decimals

Which the largest of 0.3 and 0.23?



$$0.3 > 0.23$$

"There are more counters in the furthest column to the left"

0.30
0.23

Comparing the values both with the same number of decimal places is another way to compare the number of tenths and hundredths



Simplifying fractions

You need to identify a common factor of both the numerator and the denominator and divide them both by the same number. Keep going until you cannot find a common factor.

$$\begin{array}{l}
 1. \quad \frac{10}{16} = \frac{5}{8} \\
 \begin{array}{ccc}
 \div 2 & & \\
 \curvearrowright & & \curvearrowleft \\
 & & \\
 \curvearrowleft & & \curvearrowright \\
 \div 2 & &
 \end{array}
 \end{array}
 \quad
 \begin{array}{l}
 2. \quad \frac{20}{50} = \frac{4}{10} = \frac{2}{5} \\
 \begin{array}{ccc}
 \div 5 & & \div 2 \\
 \curvearrowright & & \curvearrowleft \\
 & & \\
 \curvearrowleft & & \curvearrowright \\
 \div 5 & & \div 2
 \end{array}
 \end{array}$$

Multiplying fractions

When you multiply fractions just times the numerators and the denominators!

$$\frac{2}{3} \times \frac{5}{7} = \frac{10}{21}$$

Multiply across the top and bottom

Dividing fractions

To divide fractions, keep the first one the same, change the divide to a multiply and flip the second fraction

$$\frac{10}{3} \div \frac{2}{3} \xrightarrow{\text{Multiply by the Reciprocal}} \frac{10}{3} \times \frac{3}{2} = \frac{30}{6} = 5$$

Finding the reciprocal of a fraction swaps the numerator and denominator

To order fractions you need to convert them to the same denominator.....

Number properties 1

Adding and subtracting fractions

$$\frac{2}{9} + \frac{5}{9} \longrightarrow \frac{7}{9}$$

When denominators are the same, simply add the numerators

When the denominators are different you need to find a multiple that they both have. Once you have found a common multiple multiply the whole fraction to get the denominators the same!

$$\frac{7}{9} - \frac{1}{6}$$

When denominators are different, multiply the fractions

$\downarrow \times 2$ $\downarrow \times 3$

$$\frac{14}{18} - \frac{3}{18} \longrightarrow \frac{11}{18}$$

Remember to simplify your answers

Fractions of amounts

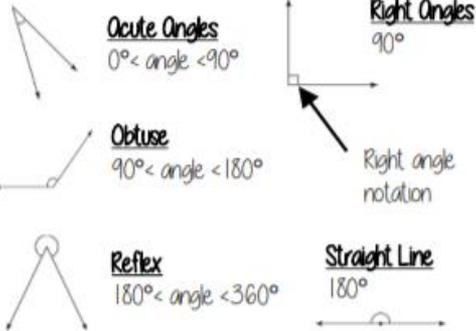
Divide amount by denominator \longrightarrow Then multiply by the numerator

$$\frac{3}{5} \text{ of } 60 \longrightarrow 60 \div 5 = 12 \longrightarrow 12 \times 3 = \underline{36}$$

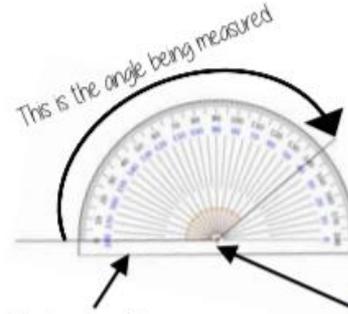


Geometry and Measure

Classify angles

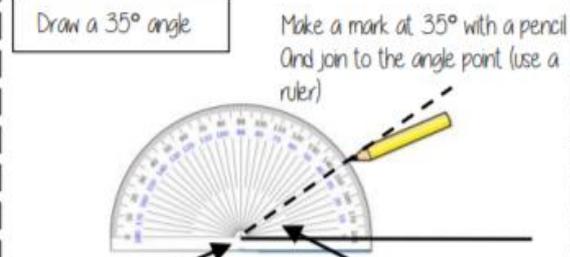


Measure angles to 180°



Read from 0° on the base line. Remember to use estimation. This is an obtuse angle so between 90° and 180°

Draw angles up to 180°



Make sure the cross is at the end of the line (where you want the angle)

Sum of angles at a point

The sum of angles around a point is 360°



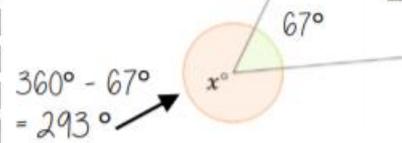
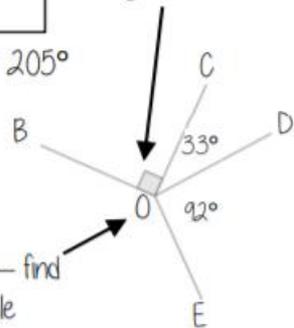
Find angle BOE

$$90^\circ + 33^\circ + 92^\circ = 205^\circ$$

$$360^\circ - 205^\circ$$

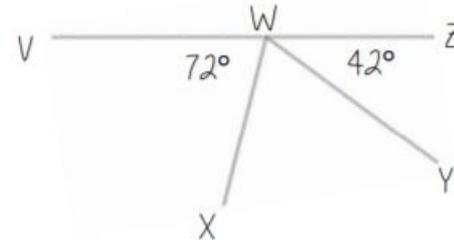
$$\text{BOE} = 155^\circ$$

Angle notation - 90°



Sum of angles on a straight line

Adjacent angles that share a common point on a line add up to 180°



Find angle XWY

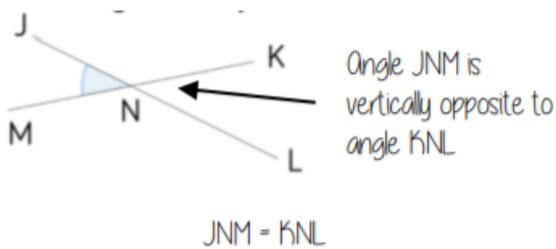
$$72^\circ + 42^\circ = 114^\circ$$

$$180^\circ - 114^\circ = 66^\circ$$



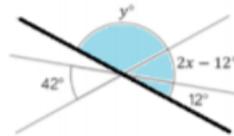
Geometry and Measure

Vertically opposite angles

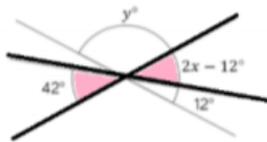


Vertically opposite angles are the same

Other angle rules still apply
Look for straight line sums and angles around a point



Form equations with information from diagrams:
 $2x - 12 = 42$
 $2x = 54$
 $x = 27^\circ$

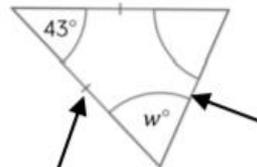


Keywords

- Vertically Opposite:** angles formed when two or more straight lines cross at a point
- Interior Angles:** angles inside the shape
- Sum:** total, add all the interior angles together
- Convex Quadrilateral:** a four-sided polygon where every interior angle is less than 180°
- Concave Quadrilateral:** a four-sided polygon where one interior angle exceeds 180°
- Polygon:** a 2D shape made with straight lines
- Scalene triangle:** a triangle with all different sides and angles
- Isosceles triangle:** a triangle with two angles the same size and two sides the same size
- Right-angled triangle:** a triangle with a right angle

Sum of angles in triangles

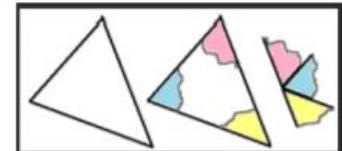
Sum of interior angles in a triangle = 180°



The two base angles will be the same size

Look at triangle notation
This indicates an isosceles triangle
 $\therefore 180 - 43 = 137$
 $137 \div 2 = 68.5^\circ$

A triangle can only have ONE right angle



Have a go!
Tearing the corners from triangles forms a straight line which is therefore 180°



Geometry and Measure

Imperial measures

Length

25 cm \approx 1 inch 1 foot = 12 inches

Mass

1 pound (lb) = 16 ounces 1 stone = 14 pounds (lbs)

Capacity

1 gallon = 8 pints 5 miles \approx 8 kilometres

 In 1965 Britain converted to the metric system for measurement to fall in line with the rest of Europe. We still use an imperial measurement of miles for distance and speed on our roads.

Keywords

Length: the distance from one point to another
Mass: a measure of how much matter is in an object
Capacity: the amount an object can contain (normally liquids)
Volume: the amount of 3-dimensional space an object takes up (units of length cubed)
Convert: to change a value or expression from one value to another.
Imperial: a system of weights and measures originally developed in England
Metric: a system of measuring that replaced the imperial system to fall in line with the rest of Europe.
Proportion: values of two items that increase in the same ratio

Metric measures

Length Common units of length or distance are 

Millimetres (mm) - "Mill" prefix means one thousandth or $\div 1000$
Centimetres (cm) - "Centi" prefix means one hundredth or $\div 100$
Metres (m)
Kilometres (km) - "kilo" prefix means a thousand $\times 1000$

 Average height of a man is 2m

Mass (Weight) 

Grams (g)
Kilograms (kg) - "kilo" prefix means a thousand $\times 1000$
Tonnes (t)

 Average weight of an apple is 100g

Capacity 

Millilitre (ml) - "Mill" prefix means one thousandth or $\div 1000$
Litre (l)

 Average bottle of water holds 500ml

Metric conversions

Length

mm $\xrightarrow{\div 10}$ cm $\xrightarrow{\div 100}$ m $\xrightarrow{\div 1000}$ km
 km $\xrightarrow{\times 1000}$ m $\xrightarrow{\times 100}$ cm $\xrightarrow{\times 10}$ mm

Mass

g $\xrightarrow{\div 1000}$ kg $\xrightarrow{\div 1000}$ t
 t $\xrightarrow{\times 1000}$ kg $\xrightarrow{\times 1000}$ g

Capacity

ml $\xrightarrow{\div 1000}$ l
 l $\xrightarrow{\times 1000}$ ml

Mill - thousandth
 Centi - hundredth
 Kilo - thousand

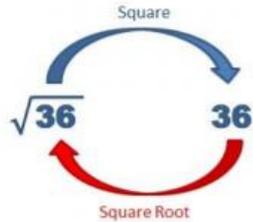


Number properties 2

Square numbers

$1^2 = 1 \times 1 = 1$	
$2^2 = 2 \times 2 = 4$	
$3^2 = 3 \times 3 = 9$	
$4^2 = 4 \times 4 = 16$	
$5^2 = 5 \times 5 = 25$	
$6^2 = 6 \times 6 = 36$	
$7^2 = 7 \times 7 = 49$	
$8^2 = 8 \times 8 = 64$	
$9^2 = 9 \times 9 = 81$	
$10^2 = 10 \times 10 = 100$	

Square roots



Square roots are the inverse operation of squaring a number.

Prime numbers

A Number is **Prime** if it has exactly 2 factors: 1 and itself

No other number can divide into it exactly

1 is not a prime number

2 is the only even prime number

Prime numbers up to 50
2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47

Factors

The numbers that are multiplied to get a given number

factors of 12:
(1, 2, 3, 4, 6, 12)

There will always be *fewer factors*, because there are a set number of ways to multiply to get a given number.

Multiples

The numbers you say when you skip-count by a given number

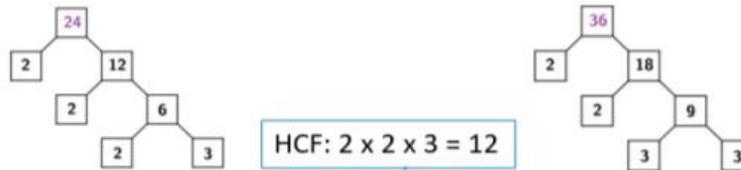
multiples of 12:
12, 24, 36, 48, 60, 72, 84, 96, 108, etc.

There will always be *more multiples*, because numbers are infinite!

MATHS - HCF and LCM from prime factors

For larger numbers to find the HCF and LCM use prime factor decomposition and then put the numbers into a Venn diagram. The middle numbers multiplied give you the HCF, multiply all of the numbers you get the LCM

Find the HCF and LCM of 24 and 36



HCF: $2 \times 2 \times 3 = 12$

LCM: $2 \times 2 \times 2 \times 3 \times 3 = 72$

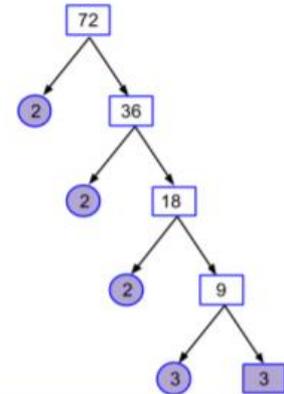
Factors and multiples in context

Example of when this appears in real life:

One bus leaves Wythall to Birmingham at 10:00 and then every 20 minutes after. Another leaves Wythall for Solihull at 10:00 and every 15 minutes after. When is the next time they both leave Wythall at the same time?

Prime factor decomposition

Use only prime numbers to divide until you cannot divide anymore.



Prime factors of 72 = $2 \times 2 \times 2 \times 3 \times 3$



Algebra 1

Like and unlike terms

Like terms are those whose variables are the same

♥ and 3♥ are like terms

the variable is the same

★ and 3♥ are unlike terms

the variables are NOT the same

Examples and non-examples

Like terms

y, 7y
2x², x²
ab, 10ba
5, -2

Un-like terms

y, 7x
2x², 2c²
ab, 10a
5, -2t

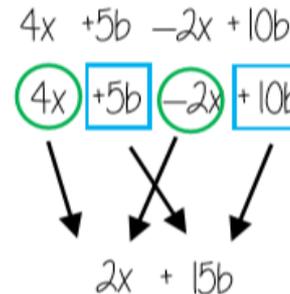
Note here ab and ba are commutative operations, so are still like terms

Collecting like terms \equiv symbol

The \equiv symbol means equivalent to
It is used to identify equivalent expressions

Collecting like terms

Only like terms can be combined

$$4x + 5b - 2x + 10b$$


$$2x + 15b$$

Common misconceptions

$$2x + 3x^2 + 4x \equiv 6x + 3x^2$$

Although they both have the x variable x² and x terms are unlike terms so can not be collected



Algebra 1

Multiply expressions with indices

$$4b \times 3a$$

$$\equiv 4 \times b \times 3 \times a$$

$$\equiv 4 \times 3 \times b \times a$$

$$\equiv 12ab$$

$$5t \times 9t$$

$$\equiv 5 \times t \times 9 \times t$$

$$\equiv 5 \times 9 \times t \times t$$

$$\equiv 45t^2$$

$$2b^4 \times 3b^2$$

$$\equiv 2 \times b \times b \times b \times b \times 3 \times b \times b$$

$$\equiv 2 \times 3 \times b \times b \times b \times b \times b \times b$$

$$\equiv 6b^6$$

There are often misconceptions with this calculation but break down the powers

Substitution into expressions

$$4y \longleftarrow \text{4 lots of 'y'}$$

If $y = 7$ this means the expression is asking for 4 'lots of' 7

$$4 \times 7 \text{ OR } 7 + 7 + 7 + 7 \text{ OR } 7 \times 4 \quad \boxed{= 28}$$

eg: $y - 2$
 $= 7 - 2 = 5$

Substitution into an expression

$$2(x + 3)$$

Put the expression into a function machine



Add 3 to the input then times 2

If $x = 10$
 $10 + 3 = 13 \dots 13 \times 2 = 26$

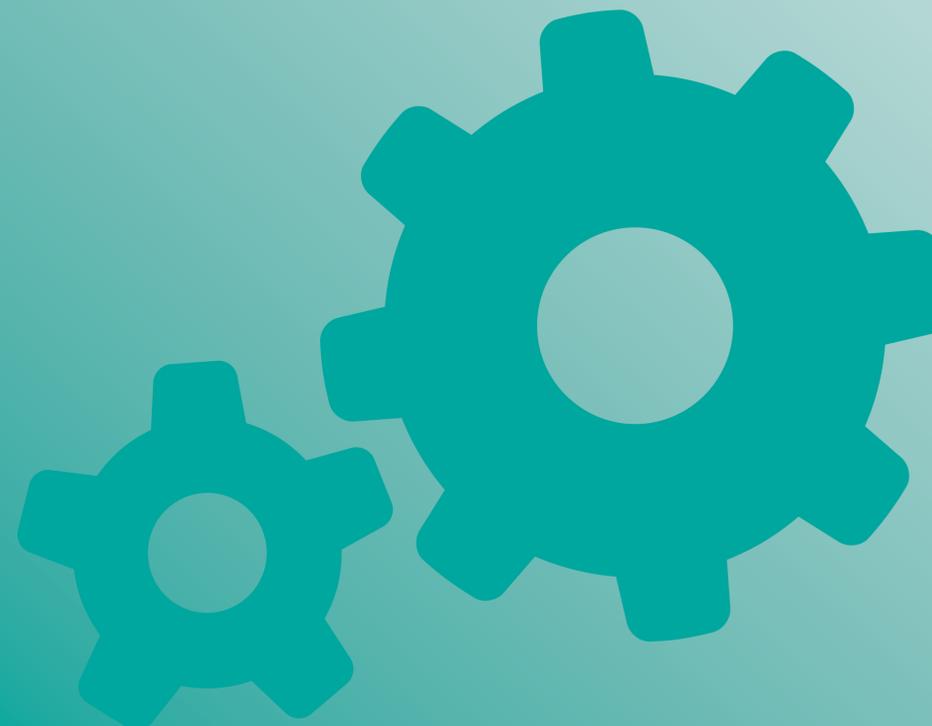
Forming a sequence

$$2(x + 3)$$

INPUT	1	2	3
OUTPUT	8	10	12

The substitution is the 'input' value
The OUTPUT becomes the sequence

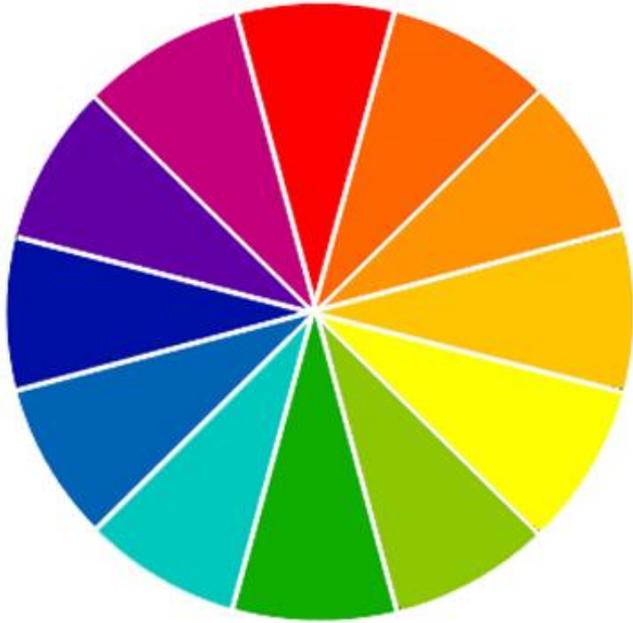
Art





In Art this term you will learn how to mix colours using paint. How to recognise colour relationships and see how artists have used and applied colour in their work.

The Colour Wheel



Independent study – Create a colour collage using one colour. Use different papers and magazines. How many different shades/hues of the colour can you collect?

Keywords

Monochromatic Secondary Harmonising Hue Primary Tertiary Complementary Tint Shade Pigment Warm Cold Hot Cool

Primary colours

Red

Blue

Yellow

Secondary colours

Orange (red + yellow)

Purple (blue + red)

Green (yellow + blue)

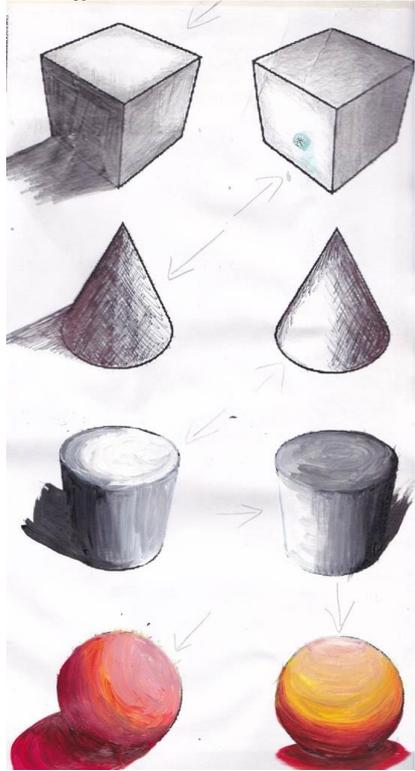
Tertiary colours are made by mixing a primary colour and a secondary colour together. For example green and blue would make blue green.



Henri-Matisse

We will be looking at the work of Henri Matisse. He was a member of the Fauvist group of artists who were very influenced by colour in their work.

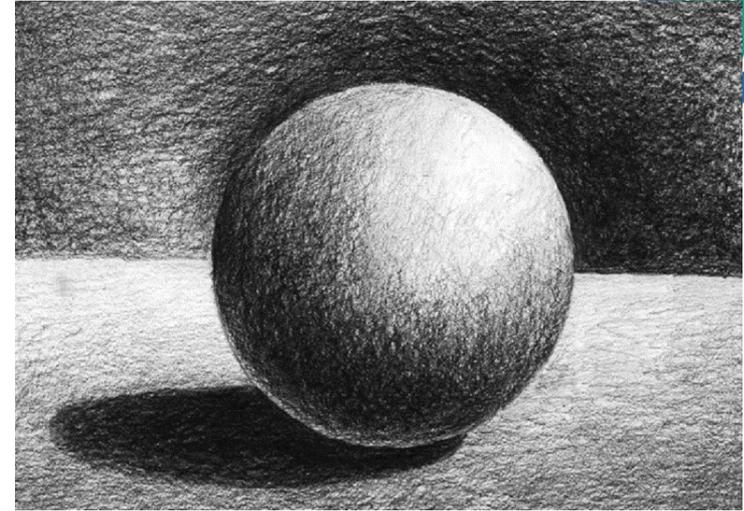
Independent study - Find out about "Fauvism" where/when did it start? Who else was involved? What characteristics can you see in the work?



Tone refers to the lightness or darkness of something. This could be a shade or how dark or light a colour appears. Tones are created by the way light falls on a 3D object. The parts of the object on which the light is strongest are called **highlights** and the darker areas are called **shadows**. There will be a range of tones in between the highlights and shadows.

Independent study - Watch the video from the link below have a go at shading your own shapes. Practising your drawing skills regularly will improve your hand eye coordination.

<https://youtu.be/vMr6eimcolc>



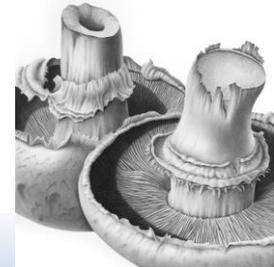
Form in drawing painting and sculpture refers to the 3-Dimensional quality of an object. You will be learning how to make flat shapes appear more rounded and curved.



Susannah Blaxhill is a botanical artist who specialises in pencil, watercolour and charcoal



Independent study
Select a piece of fruit or a vegetable to draw in detail, you could cut it in half to make a more interesting drawing.

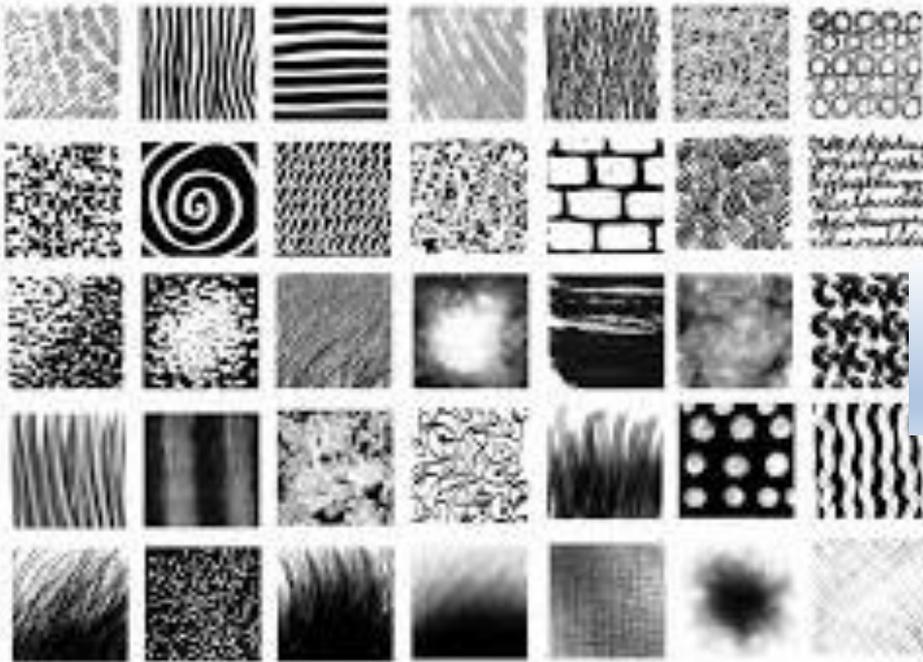


Keywords

Tone Value Gradient Highlight Shadow Light Dark Range
Form Shape Space 3-Dimensional Rounded Curved Illusion



Making a mark in Art can be done using any materials and equipment. Cave men first made marks using handprints, rocks and minerals. Watch the video from the link below to see how artists use mark-making. **Independent study** - Create your own mark-making example page using found objects.

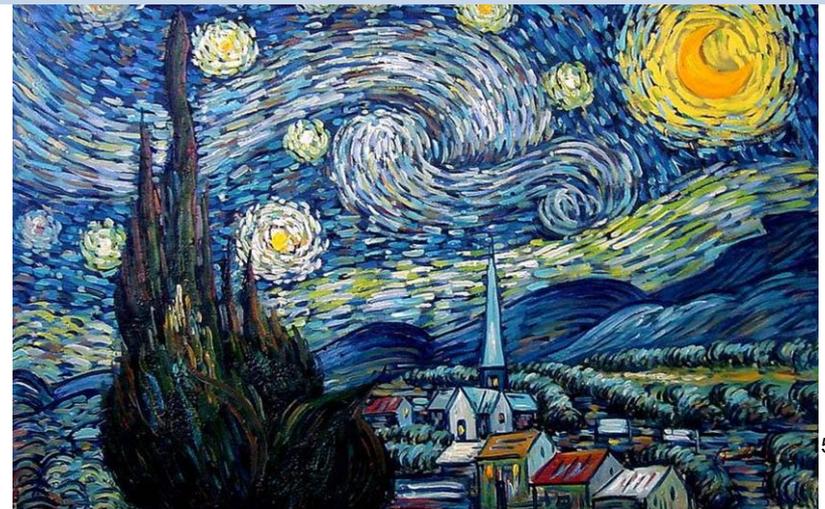


Independent study - Create your own landscape in the style of Vincent Van Gogh. Use mark-making techniques to denote the texture you can see. How could you demonstrate an understanding of grass, clouds, trees?

<https://www.tate.org.uk/art/student-resource/exam-help/mark-making>

Keywords

Scribble Rubbing Scumbling Stippling Dots Dashes Scratched Line Pattern Gesture Surface Texture





Maths and Art

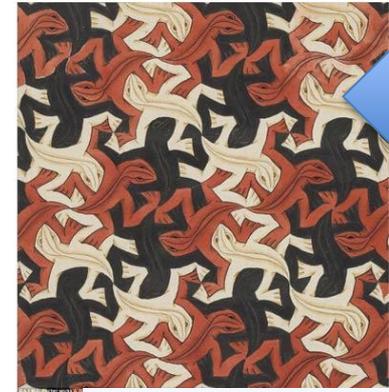
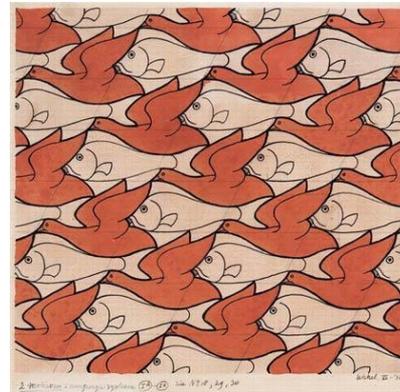
MC Escher's work is a famous artist who created mathematically challenging artwork. He used only simple drawing tools and the naked eye, but was able to create stunning mathematical pieces.

Independent study - Use card to cut a simple shape, create a tessellated pattern in the style of MC Escher.



The painting above is by **Gustav Klimt**. The patterns used are more organic and based on nature.

Independent study – Create your own organic pattern design based on the work of Gustav Klimt.



Yayoi Kusama is a Japanese contemporary artist who works primarily in sculpture and installation, but is also active in painting, performance, film, fashion, poetry, fiction, and other arts.

Independent study- Have a look at the work of Kusama. Draw an everyday object and add Kusama style pattern work to it.

Keywords

Repeat Symmetry Rotate Regular Irregular Organic Geometric Man-made Positive Negative Tessellation



In every project you complete in Art you will be looking at the work of artists, craftspeople and designers. You will learn how to interpret works of art and how to analyse art work and make links to your own work and ideas.

Remember
 Sentence structure
 Spelling
 Punctuation
 Read and review your written work before handing in.
 Use subject specific vocabulary

Introduction
 Who is the artist?
 What is the title of the piece?
 When was the piece made?



Example
 The painting I am studying is called "Starry night". It was painted by Vincent Van Gogh in in June 1889.



Describe
 What can you see in the work? You should describe the work in detail. What can you see in the foreground or background? Is the piece realistic, abstract figurative or painterly?

Analyse
 What materials and techniques has the artist used?
 How have the materials been use to create particular effects?
 What kind of colours has the artist used?

Context
 What ideas are behind the work?
 Is there historical, social or political meaning behind the work?

Give opinions
 What do you think about the work? Do you like it or dislike it? Justify your opinions. It is fine not to like something providing you can say why using subject specific vocabulary.

Evaluate
 Evaluate the value of the work. How does it link to your work and ideas?

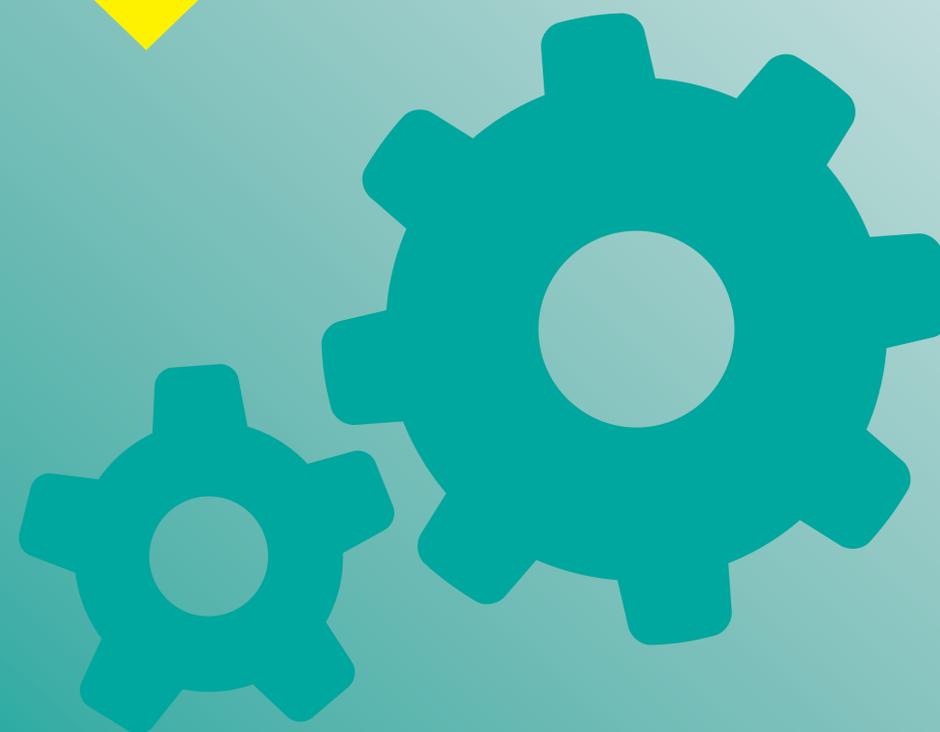
Key Vocabulary

- Colour
- Tone
- Pattern
- Texture
- Value
- Proportion
- Scale
- Shape
- Form
- Line
- Mark making
- Media
- Materials
- Technique
- Composition
- Space
- Perspective
- Viewpoint
- Foreground
- Background
- Style
- Abstract
- Figurative
- Realistic

Keywords

Evaluate Analyse Response Structure Annotate Review Research Describe Interpret Compare Contrast

History





Year 7 Knowledge Organiser

TIMELINE

Dates	Events	Key Events	Notes	Claimant	KEY WORDS
14th Oct 1066	The Battle of Hastings.	The Battle of Hastings	The Battle of Hastings took place between William, Duke of Normandy and Harold Godwinson, King of England. They met at Senlac Hill in the south of England. William's army (the Normans) was at the bottom and Harold's army (the Anglo-Saxons) was at the top. Harold placed his men in a 'shield wall' whilst William's men rode on horses and used their spears to attack the wall. William eventually won the battle by using a tactic called 'the feigned retreat' and Harold was hit by an arrow in the eye.	Claimant	A person with a claim to something like the throne of England.
29th Dec 1170	Thomas Becket is murdered in Canterbury Cathedral.			Feudal System	A system which ordered society with the king at the top and nobles, knights and peasants below.
1346 - 1353	The Black death kills an estimated 25 million people.			The Peasants' Revolt	In 1381 the peasants who lived in Kent and Essex became very angry at King Richard II for making them pay an unfair tax. This was called 'The poll tax' and it was much too high for any of them to pay. The peasants began to riot and revolt and went to London where they burnt down buildings and beheaded the Archbishop of Canterbury, Simon Sudbury. They met the King and asked for society to be fairer. Even though Richard II agreed at first, he later betrayed the rebels by using his army to defeat them and had its leader beheaded, a man called War Tyler.
15th June 1215	King John signs The Magna Carta.	Monarch	A ruler like a King or a Queen.		
1381	The Peasants' Revolt.	Henry VIII's break with Rome	After 20 years of marriage to Catherine of Aragon, Henry VIII decided he wanted a divorce. Catherine had not given him a male heir who would be King after he died and he had also fallen in love with Anne Boleyn. Because he was a Catholic he had to go to the Pope to ask permission but the Pope refused as divorce went against the Catholic religion. In 1533 Henry passed a law allowing him to divorce Catherine and marry Anne. In 1534 he set up his own church, the Church of England, and made himself the Supreme Head. This meant England was no longer Catholic and ended its relationship with the Pope in Rome.	Poll tax	A type of tax where everyone pays the same whatever their background or wealth.
1532 - 1534	Henry VIII breaks with Rome.			Excommunicate	Where the Pope bans someone from the Church meaning they can't go to heaven.
1537 - 1553	Reign of Edward VI.			The Spanish Armada	In 1588 King Philip II of Spain sent an army on a fleet or 'armada' to attack and invade England. He was a Catholic and disliked the English because they were Protestants. He wanted to capture England from Elizabeth I and make it a Catholic country again. The armada was made up of 130 ships whilst the English only had 55. Despite this English sailors like Sir Francis Drake used clever tactics to defeat the Armada at the Battle of Gravelines. Afterwards the Spanish tried to sail home around Scotland but many of their ships were destroyed in storms.
1553 - 1558	Reign of Mary 1st or 'bloody Mary'.	Civil War	A war between people from the same country.		
1588	Queen Elizabeth 1st defeats the Spanish Armada.	The English Civil War	This was a war between the King of England, Charles 1st and many of his own people who supported Parliament. The war started when people became angry at the King for raising taxes and trying to shut down Parliament and arrest MPs. The King's army (called cavaliers) and Parliament's army (the roundheads) fought many battles. Eventually the roundheads, under Oliver Cromwell, won and the King was executed.	Stuarts	A royal family which ruled England in the 17th and 18th centuries.
1642 - 1651	The English Civil War.			Lord Protector	Someone who rules England but is not a member of a royal family so is not a king.
30th Jan 1649	King Charles 1st is executed by beheading.				
1653 - 1658	Oliver Cromwell becomes Lord Protector of England.				
1660 - 1666	Charles 2nd restores the Stuart Monarchy. (The Restoration)				



Medieval	The period between 1066-1500
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
Conquest	Taking an area by using force
Fyrd	Local farmers that fight for Harold Godwinson's army
Housecarls	Paid, experienced soldiers that fought for Harold's army
Cavalry	William's soldiers that fought on horses
Harrying	To completely destroy
Pope	Head of the Catholic Church

Key Events leading up to and during the Battle

- 4th January 1066 Edward the Confessor dies with no heir
- 6th January 1066 Harold Godwinson crowned King
- July 1066 Harold prepares his army on the south coast for a Norman invasion
- September 1066 Harald Hardrada and Vikings invade England in the North
- 20th September Battle of Fulford Gate – Vikings defeat Morcar and an English army
- 21st September Harold marches North
- 25th September Battle of Stamford Bridge – Harold defeats Harald Hardrada– English victory.
- 27th September William sets sail for England
- 28th September William lands at pevensey Bay, England
- 29th September William occupies Hastings
- 6th October Harold arrives back in London
- 14th October Battle of Hastings – Norman victory. Harold Godwinson is killed.
- 25th December 1066 William the Conqueror is crowned King of England



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.

Heir: a person who is legally allowed to take the rank and property of someone who has died.

Witan: Kings Council, made up of powerful Bishops and Earls, helped the king run the country

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!**

• He was made a saint and 'the confessor' means someone that is saint-like but not a martyr.

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

Harald Hardrada

Viking King of Norway
Hardrada's family had ruled Britain before, so he felt the crown belonged to him. Most feared warrior in Europe - Hardrada means 'hard ruler' and his nickname was 'the Ruthless'. Harald was supported by Tostig, Harold Godwinson's brother who wanted revenge.

Harold Godwinson

Anglo-Saxon. Earl of Wessex, one of the most powerful men in England
Harold's sister was married to King Edward. Harold was a brave and respected soldier with a tough streak.
The Witan, wanted Harold to be the next king.

William of Normandy

Duke of Normandy, France. William came from a fighting family. He was a brave soldier. He was Edward's cousin. Edward had lived in Normandy from 1016-1042. Edward had supposedly promised that William should become King of England



Armies at the Battle of Hastings

William's army	Harold's army
<ul style="list-style-type: none"> His soldiers were well trained and well equipped. They wore chain mail armour which gave them much protection. His army was made up of 3 types of soldiers: infantry, archers and cavalry. His cavalry rode specially bred horses which could carry the weight of these horse soldiers and still ride at speed. They were the elite of William's army. 	<ul style="list-style-type: none"> Harold's army was made up of professional soldiers and conscripts, peasant farmers who were forced to join the army and fight. Harold's best professional soldiers were the Saxon Housescarls. They were the king's elite bodyguard. They fought with large axes and round shields.

Key events in the battle:

- The wind changed allowing William to cross the English Channel while Harold's troops were far away in the north.
- The Battle of Stamford Bridge and the march south made Harold's troops very tired. Some of Harold's best troops had died at Stamford Bridge.
- Harold arrived in Hastings and positioned his army at the top of Senlac Hill.
- William's troops struggled to fight Harold's army on top of the hill.
- William's army pretended to retreat and some of Harold's troops chased them down the hill.
- William's men turned around and killed them.
- Harold was killed by an arrow to the eye, leaving William the winner.

Why did William win the battle of Hastings?

Harold's bad luck

- Harold had fought at Stamford Bridge and was not expecting William to launch his invasion this late in the year.
- Harold's conscripted soldiers had to return home for the harvest just before the battle.

Preparations

- William had well trained and professional soldiers. Large parts of Harold's army was untrained and made up of farmers. Many of Harold's men had left the army to collect the harvest in. Harold was not prepared for the battle.
- William's army was fresh and well rested. He had lots of supplies. Harold's was tired and reduced in size following the Battle of Stamford Bridge.

William's good luck

- The weather changed when William was trying to cross the Channel
- Harold had to fight the Vikings first this gave William the advantage.
- The Saxons left the shield wall to chase the Normans down the hill.
- At a key moment in the battle Harold was killed.

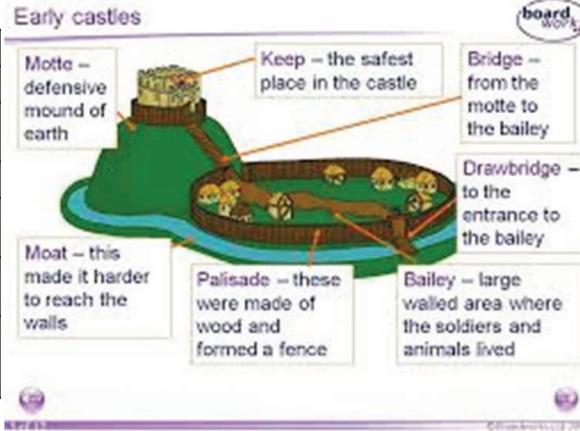
Leadership

- William was very brave and led his men very well.
- William showed his face during the battle to keep his soldiers from running away.

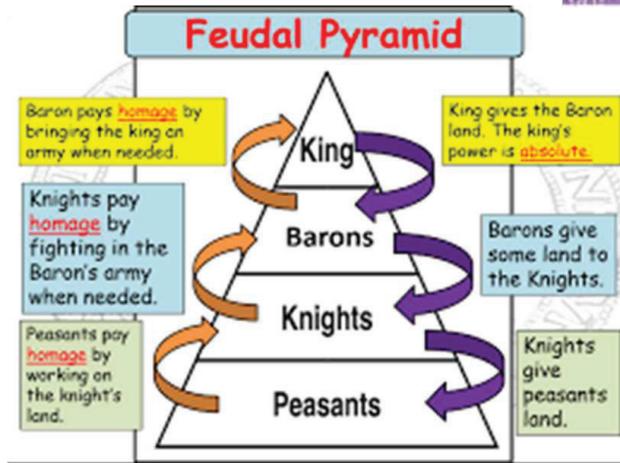




Key Term	Definition
Medieval	The period between 1066-1500
Feudal system	The social structure of Medieval England
Villein	Peasant at the bottom of the Feudal system
Baron	Noble land owner that pledged their loyalty to the King
Normans	People from the Normandy region of France, led by King William
Motte and Bailey	The first type of castle made by William. It was made out of wood and had a higher Motte part and a lower Bailey part



Strengths	Weaknesses
<ul style="list-style-type: none"> Were built very quickly Made out of materials available locally Built in 8 days Used as bases for knights and soldiers Sites for markets and trade Defenders could see and enemy attack in advance. Could protect citizens A few soldiers could control a large area. 	<ul style="list-style-type: none"> The walls rotted quickly Could be easily burnt or destroyed Needed constant maintenance. Were cramped and uncomfortable



The Feudal System

After taking the throne in 1066, William has a few problems:

- He does not trust the English lords, who do not like him.
- He has to force the English to accept him as King.
- Many of the English are rebelling and fighting against William.
- He has to pay the French Knights who helped him to win the throne.

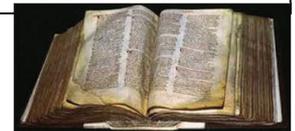
Solution: William crushes the rebellions and took the land away from the English lords and gave it to his supporters instead. William now has his supporters helping him to control the whole country. William also sets up the **Feudal System**. This forces the English to give William their taxes and promises of loyalty, in return for protection and land to farm. William is at the top of the system, as he holds all the land and money, which he gives to the Barons. 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 to the knights.

The Domesday Book

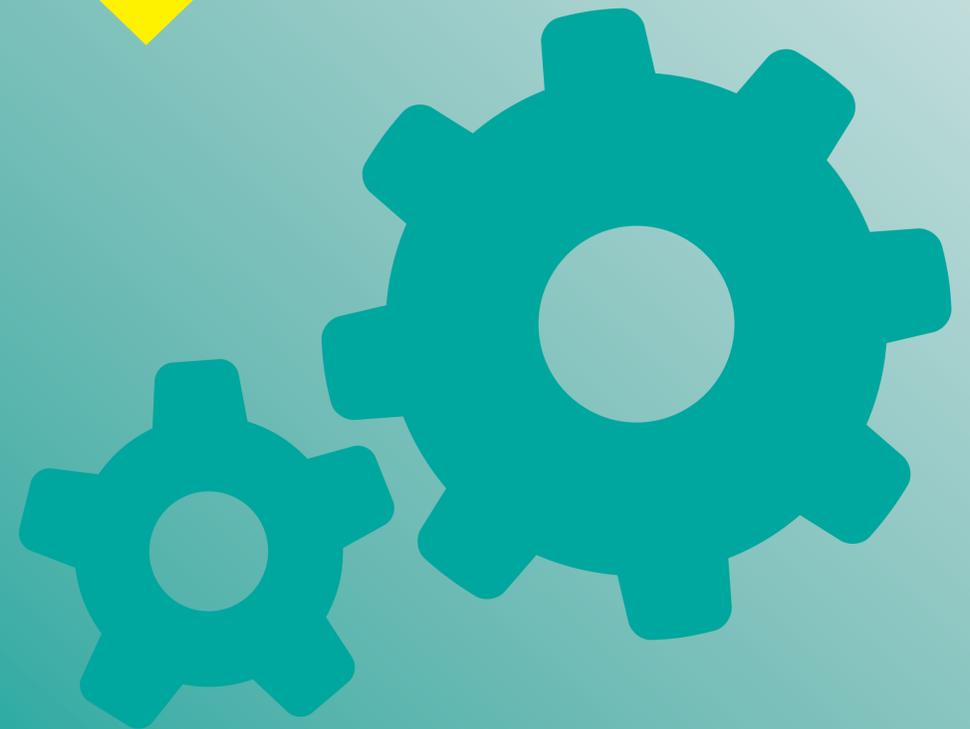
In 1086, William sent out surveyors to every part of England, with orders to list:

- how much land was there
- who had owned it in 1066, and who owned it now
- what was the place like, and who lived there
- how much it was worth in 1066 and how much now

William did this to allow him to effectively tax the land and earn money. William also needed to have an idea of what could be seized from landowners who did not show him loyalty.



French





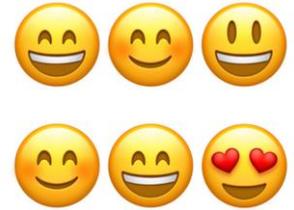
Mon autoportrait = My self-portrait

les animaux (m pl) = *animals*
 les araignées (f pl) = *spiders*
 les chats (m pl) = *cats*
 les chiens (m pl) = *dogs*
 le cinéma = *cinema*
 les consoles de jeux (f pl) = *games consoles*
 la danse = *dancing*
 le foot = *football*
 les gâteaux (m pl) = *cakes*
 le hard rock = *hard rock*
 l'injustice (f) = *injustice*
 les insectes (m pl) = *insects*
 les jeux vidéo (m pl) = *video games*
 les livres (m pl) = *books*
 la musique = *music*
 les mangas (m pl) = *mangas*
 les maths (m pl) = *maths*
 les pizzas (f pl) = *pizzas*
 la poésie = *poetry*
 le racisme = *racism*
 le rap = *rap*
 le reggae = *reggae*
 les reptiles (m pl) = *reptiles*
 le roller = *roller-skating*
 le rugby = *rugby*
 le skate = *skateboarding*
 les spaghettis (m pl) = *spaghetti*
 le sport = *sport*
 la tecktonik = *tecktonik (dance)*
 la télé = *TV*
 le tennis = *tennis*
 le théâtre = *theatre, drama*
 les voyages (m pl) = *journeys*
 la violence = *violence*
 les weekends (m pl) = *weekends*



Les opinions = Opinions

j'aime = *I like*
 je n'aime pas = *I don't like*
 Tu aimes...? = *Do you like...?*
 il/elle aime = *he/she likes*
 Oui, j'aime ça. = *Yes, I like that.*
 Non, je n'aime pas ça. = *No, I don't like that.*
 Tu es d'accord? = *Do you agree?*
 Je suis d'accord. = *I agree.*
 Je ne suis pas d'accord. = *I don't agree.*
 C'est... = *It's...*
 génial = *great*
 cool = *cool*
 bien = *good*
 ennuyeux = *boring*
 nul = *rubbish*
 essentiel = *essential*
 important = *important*
 Ce n'est pas bien. = *It's not good.*



Les mots essentiels = High-frequency words

et = *and*
 aussi = *also*
 mais = *but*
 très = *very*
 assez = *quite*
 toujours = *always*
 Qu'est-ce que...? = *What...?*
 Qui...? = *Who...?*



Les yeux et les cheveux = Eyes and hair

j'ai = I have
 tu as = you have
 il/elle a he/she has
 mon ami(e) a = my friend has
 J'ai les yeux bleus/verts/gris/marron. = I have blue/green/grey/brown eyes.
 J'ai les cheveux longs/courts/mi-longs. = I have long/short/medium-length hair.
 frisés/raides = curly/straight
 blonds/bruns/noirs/roux = blond/brown/black/red



Moi et les autres = Me and other people

je suis = I am
 je ne suis pas = I am not
 tu es = you are
 il/elle s'appelle = he/she is called
 il/elle est = he/she is
 beau/belle = good-looking
 branché(e) = trendy
 charmant(e) = charming
 cool = cool
 curieux/curieuse = curious
 de taille moyenne = average height
 drôle = funny
 généreux/généreuse = generous
 gentil(le) = nice
 grand(e) = tall
 impatient(e) = impatient
 intelligent(e) = intelligent
 modeste = modest
 petit(e) = small
 poli(e) = polite

Mon kit de survie = My survival kit

j'ai = I have
 je n'ai pas de = I don't have
 tu as = you have
 il/elle a = he/she has
 un appareil photo = a camera
 une barre de céréales = a cereal bar
 un bâton de colle = a gluestick
 des chips (f pl) = crisps
 des clés (f pl) = keys
 une clé USB = a memory stick
 une gourde = a water bottle
 des kleenex (m pl) = tissues
 des lunettes de soleil (f pl) = sunglasses
 un magazine = a magazine
 un miroir = a mirror
 un MP3 = an MP3 player
 un portable = a mobile phone
 un portemonnaie = a purse
 un paquet de mouchoirs = a packet of tissues
 un sac = a bag
 des surligneurs fluo (m pl) = fluorescent highlighters
 une trousse = a pencil case



Les musiciens = Musicians

Il/Elle joue... = He/She plays...
 de la batterie = the drums
 de la guitare = the guitar
 Il/Elle chante. = He/She sings.
 Il/Elle a beaucoup de talent. = He/She has a lot of talent. 25



Pronouncing words in French

French words are often said differently to how they look, even if they look like English words.

There are some key rules that will help you pronounce words correctly.

- **h** is silent.
l'hôtel (the hotel), l'homme (the man)
- **n**, **p**, **s**, **t**, **x**, and **z** are silent when they are at the end of a word.
le chat (the cat), les hamsters (the hamsters)
- However, if a **word ends in t or n and the next word starts with a vowel or h**, the t or n is pronounced.
un bon hôtel (a good hotel)
- If a **word ends in s or x the next word starts with a vowel or h**, the s or x will sound like z. This is called 'liaison' as the words are linked together.
les enfants (the children), très ennuyeux (very boring)
- When a word starts with **qu**, it is usually pronounced k.
Q'est-ce que tu fais? (What are you doing?)
- The letter **j** sounds like the letter **s** in the English word 'television'. The same sound is made when the letter **g** is followed by **i** or **e**.
Je joue avec la girafe! (I play with the giraffe!)
- When the letter **r** is at the start (and often the middle) of a word, it is rolled, which means the r sound comes from the back of your throat. At the end of a word, the letter r is usually silent.
Robert adore manger raisins. (Robert loves eating grapes).
- The letters **eau**, **au** and **aux** all make the sound o.
L'eau et les chevaux sont à gauche. (The water and the horses are on the left).

For more information and practice on French pronunciation:

- <https://www.bbc.co.uk/bitesize/topics/zkqgbdm/articles/zdh292p>
- <https://www.bbc.co.uk/bitesize/topics/zkqgbdm/articles/zbj9y9q>



Using the verbs 'to be' and 'to have'

Two of the most important verbs in French are:

- être (to be)
- avoir (to have)



être (to be)	
je suis	I am
tu es	you are (1 friend)
il/elle/on est	he/she is / we are
nous sommes	we are
vous êtes	you are (plural/polite)
ils/elles sont	they are

For more information and practice using the verb 'to be':

<https://www.bbc.co.uk/bitesize/topics/z7t8kmn/articles/zdpmkmn>

If there is one person's name instead of a subject pronoun, we use the 'he/she form' of the verb.

If there is more than one person's name instead of a subject pronoun, we use the 'they form' of the verb.

avoir (to have)	
j'ai	I have
tu as	you have (1 friend)
il/elle/on a	he/she has / we have
nous avons	we have
vous avez	you have (plural/polite)
ils/elles ont	they have



For more information and practice using the verb 'to have':

<https://www.bbc.co.uk/bitesize/topics/z7t8kmn/articles/zjs6d6f>



Using nouns and articles

Nouns are people, places and things.

Many French nouns look similar to English words and have the same meaning. We call them cognates.

In French, all nouns have a gender: **masculine** or **feminine**.
This is not linked to whether you are male or female!

This also means that there are different words for the articles 'the' and 'a'.

	masculine	feminine	plural	before vowel / h
the (definite article)	le	la	les	l'
a (indefinite article)	un	une	des (some)	

In French, there is almost always an article in front of the noun, even if there wouldn't be in English.
e.g. J'aime le tennis. = I like tennis.



To make a noun plural, as in English, we often add -s to the end of the noun, but this -s is silent.

- **le** chat (the cat) **les** chats (the cats)
- **la** pizza (the pizza) **les** pizzas (the pizzas)

For nouns that already end in -s, -x or -z, the noun stays the same.

e.g. **le** prix (the price) **les** prix (the prices)

For nouns ending in -eau or -eu, we add -x in the plural.

e.g. **le** château (the castle) **les** châteaux (the castles)

For nouns ending in -al, we change the -al to -aux.

e.g. **le** cheval (the horse) **les** chevaux (the horses)

For more information and practice using nouns and articles:
<https://www.bbc.co.uk/bitesize/clips/z8rtsg8> (video)
<https://www.bbc.co.uk/bitesize/topics/z7t8kmn/articles/zkt747h>



Using adjectives

Adjectives describe nouns (people, places and things).

In French, most adjectives go after the noun they describe. (e.g. un stylo bleu = a blue pen - but literally 'a pen blue').

The adjective has to agree with the noun it describes.

This means that the ending of the adjective usually changes, depending on whether the noun is masculine or feminine, singular or plural.

Regular adjectives **add -e to describe feminine nouns** and **add -s in the plural**:

English	masc (sing.)	fem (sing.)	masc (pl.)	fem (pl.)
big/tall	grand	grande	grands	grandes
important	important	importante	importants	importantes

If the adjective already ends in -e, we don't add an extra -e in the feminine form:

English	masc (sing.)	fem (sing.)	masc (pl.)	fem (pl.)
shy	timide	timide	timides	timides

Some adjectives change a bit more, depending on their ending:

English	masc (sing.)	fem (sing.)	masc (pl.)	fem (pl.)
essential	essentiel	essentielle	essentiels	essentielle s
active	actif	active	actifs	active s
generous	généreux	généreuse	généreux	généreuse s

Some adjectives are irregular and you just have to learn them!

English	masc (sing.)	fem (sing.)	masc (pl.)	fem (pl.)
attractive	beau	belle	beaux	belles

A few adjectives never change. They are the same in the masculine and feminine form, both singular and plural.
e.g. marron / orange



For more information and practice using adjectives:
<https://www.bbc.co.uk/bitesize/c/lips/zqks39q> (video)
<https://www.bbc.co.uk/bitesize/t/opics/z7t8kmm/articles/z4q28xs> ²⁹



Possessive adjectives

Possessive adjectives are words like 'my', 'your', 'his' and 'her'.

In French, there are three different words for each of the possessive adjectives.

This is because the possessive adjective needs to agree with the noun it comes before.

English	masculine	feminine	plural
my	mon	ma	mes
your	ton	ta	tes
his/her/one's	son	sa	ses

In French, the same set of possessive adjectives is used for both 'his' and 'her', so you have to use context to work out if it means 'his' or 'her'.

- **son** chat (his cat OR her cat)
- **sa** maison (his house OR her house)
- **ses** parents (his parents OR her parents)

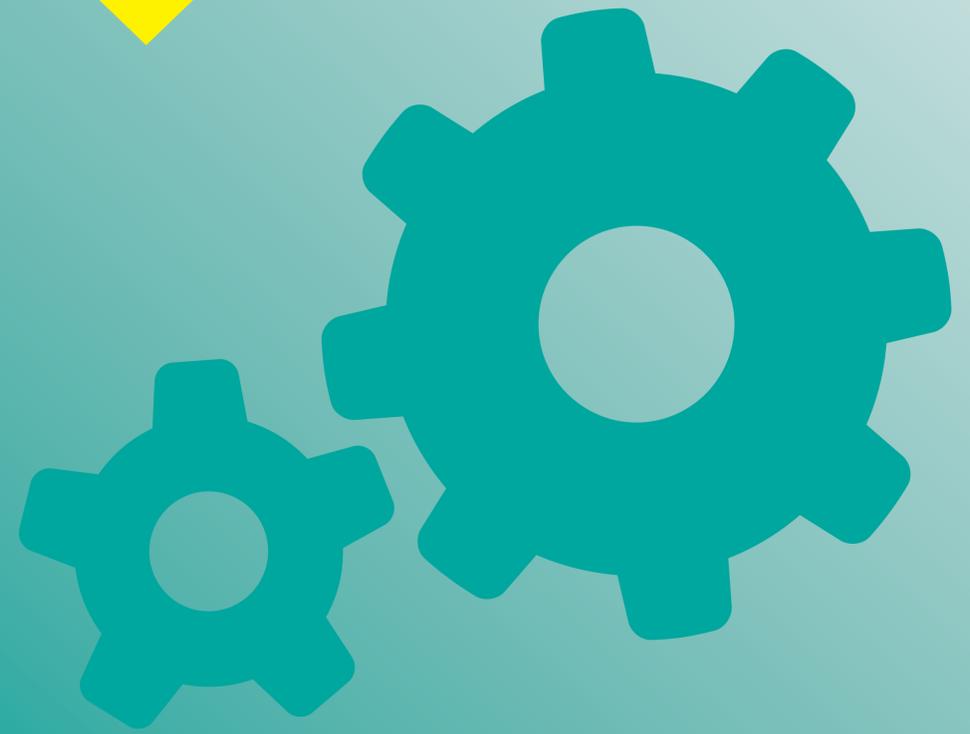
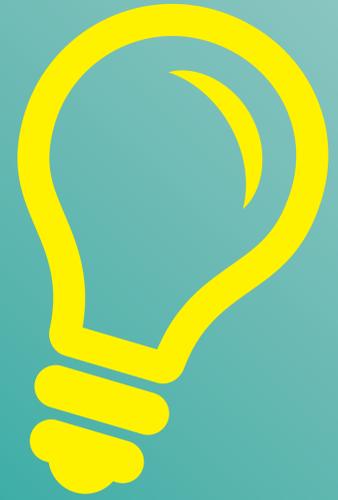
If a singular noun starts with a vowel or silent h, we use the masculine possessive adjective, even if the noun is feminine:

- **son** école



For more information and practice using possessive adjectives:
<https://www.youtube.com/watch?v=jXt-dAm6-U> (video)

Spanish



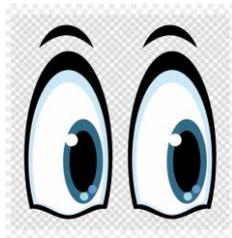


Pronunciation

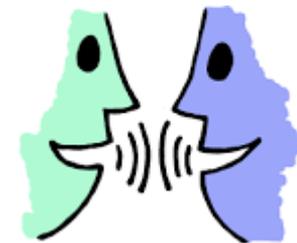
It is good to know how to pronounce words correctly to improve pronunciation in Spanish.

When you know how to produce sounds correctly you will find it easier to say new words when you come across them.

- Spanish is a phonetic language which means that letters are always pronounced in the same way (with a few exceptions).
- Luckily, once you know the sound that each letter represents (phoneme) you will know how to pronounce a word from the way that it is written and usually you can pronounce the word exactly how it is written.



Look at the following website for more information on Spanish phonemes and pronunciation practice
<https://www.bbc.co.uk/bitesize/topics/zhy27nb/articles/zk78382>





Saludos

¡Hola!
¿Qué tal?
Bien, gracias.
fenomenal
regular
fatal
¿Cómo te llamas?
Me llamo...
¿Dónde vives?
Vivo en...
¡Hasta luego!
¡Adiós!

Greetings

Hello!
How are you?
Fine, thanks.
great
not bad
awful
What are you called?
I am called...
Where do you live?
I live in...
See you later!
Goodbye!



Mi pasión

Mi pasión es...
Mi héroe es...
el deporte
el fútbol
la música
el tenis

My passion

My passion is...
My hero is...
sport
football
music
tennis

¿Qué tipo de persona eres?

Soy...
divertido/a
estupendo/a
fenomenal
generoso/a
genial
guay
listo/a
serio/a
simpático/a
sincero/a
tímido/a
tonto/a
tranquilo/a

What sort of person are you?

I am...
amusing
brilliant
fantastic
generous
great
cool
clever
serious
nice, kind
sincere
shy
silly
quiet, calm



Palabras muy frecuentes High-frequency words

bastante	quite
no	no/not
mi, mis	my
muy	very
pero	but
también	also, too
tu/tus	your
un poco	a bit
y	and



¿Tienes hermanos?

Tengo...

una hermana

un hermano

una hermanastra

un hermanastro

No tengo hermanos.

Soy hijo único./Soy hija única.

Do you have any brothers or sisters?

I have...

a sister

a brother

a half-sister/stepsister

a half-brother/stepbrother

I don't have any brothers or sisters.

I am an only child. (male/female)



¿Cuántos años tienes?

Tengo... años.

¿Cuándo es tu cumpleaños?

Mi cumpleaños es el... de...

enero

febrero

marzo

abril

mayo

junio

julio

agosto

septiembre

octubre

noviembre

diciembre

How old are you?

I am... years old.

When is your birthday?

My birthday is the... of.

January

February

March

April

May

June

July

August

September

October

November

December





¿Tienes mascotas?

Tengo...

un caballo

una cobaya

un conejo

un gato

un perro

un pez

un ratón

una serpiente

No tengo mascotas.

¿Cómo es?

¿Cómo son?

Do you have pets?

I have...

a horse

a guinea pig

a rabbit

a cat

a dog

a fish

a mouse

a snake

I don't have any pets.

What is it like?

What are they like?



Los colores

blanco/a

amarillo/a

negro/a

rojo/a

verde

gris

marrón

azul

rosa

naranja

Colours

white

yellow

black

red

green

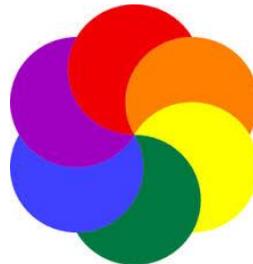
grey

brown

blue

pink

orange





Números 1-31 (Numbers 1-31)

uno	1	dieciséis	16
dos	2	diecisiete	17
tres	3	dieciocho	18
cuatro	4	diecinueve	19
cinco	5	veinte	20
seis	6	veintiuno	21
siete	7	veintidós	22
ocho	8	veintitrés	23
nueve	9	veinticuatro	24
diez	10	veinticinco	25
once	11	veintiséis	26
doce	12	veintisiete	27
trece	13	veintiocho	28
catorce	14	veintinueve	29
quince	15	treinta	30
		treinta y uno	31





NOUNS AND ARTICLES

In English, nouns are often preceded by the word "the", "a/an" or "some":

George went to the pizzeria in the town-centre with some friends to buy a large pizza and some lemonade. These words are called **articles**.

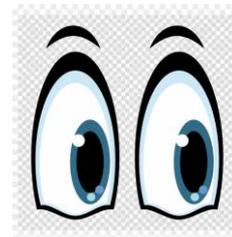
In Spanish, ALL nouns have a gender: **MASCULINE** or **FEMININE**.

In Spanish we use different articles depending on the gender and number of the noun:

	MASCULINE	FEMININE
A/AN	un	una
THE	el	la
THE (PLURAL)	los	las

e.g. un perro = a dog
 el perro = the dog
 los gatos = the cats

una tortuga = a tortoise
 la tortuga = the tortoise
 las serpientes = the snakes



Look at the following website for more information and practise on nouns and articles
<https://www.bbc.co.uk/bitesize/guides/zjpnrd/revision/1>



Using SER

In this topic you will talk about the personality of yourself and other people. To do this you must use the verb 'SER' which means 'TO BE'.

Ser is an irregular verb in Spanish that is widely used.
Here is TENER in all parts of the verb:

e.g.

Soy sincero = I am sincere

Eres listo = you are clever

Mi madre es simpática = my mum is kind

Son tontos = they are silly

Remember - adjectives are masculine/feminine and must agree with the noun that they are describing (see next slide)!!

<u>SER = TO BE</u>
Soy = I am
Eres = you are
Es = he/she is
Somos = we are
Sois = you all are
Son = they are



Look at the following website for more information on using the verb 'ser' when giving descriptions:

https://www.bbc.co.uk/bitesize/topics/zfgt_6v4/articles/zkmwgowx



An **ADJECTIVE** is a word that describes a noun.

In Spanish, adjective endings change depending on whether the word they are describing is masculine, feminine, singular or plural.

Making adjectives agree

This table shows the patterns that adjectives usually follow to agree with the noun they are describing:

Adjectives ending in:	Masculine singular	Feminine singular	Masculine plural	Feminine plural
o/a	rojo	roja	rojos	rojas
e	verde	verde	verdes	verdes
a consonant	azul	azul	azules	azules

Some adjectives don't change at all for gender eg rosa, naranja

Position of adjectives

In Spanish, most adjectives come after the noun that they are describing.

Noun + Adjective:

- e.g. un perro blanco = a white dog
- una **cobaya blanca** = a white guinea pig
- los gatos negros = the black cats
- las serpientes verdes = the green snakes



Look at the following website for more information and practise on adjectives and agreements
<https://www.bbc.co.uk/bitesize/guides/zr742sg/revision/1>



Using TENER

Tener in Spanish means 'TO HAVE'.

In English when giving your age you would use the verb 'I am'

e.g. I am 13 years old.

However, in Spanish when giving your age you would say how many years you HAVE rather than ARE. You would therefore use the verb 'I have'

e.g. I have 13 years.

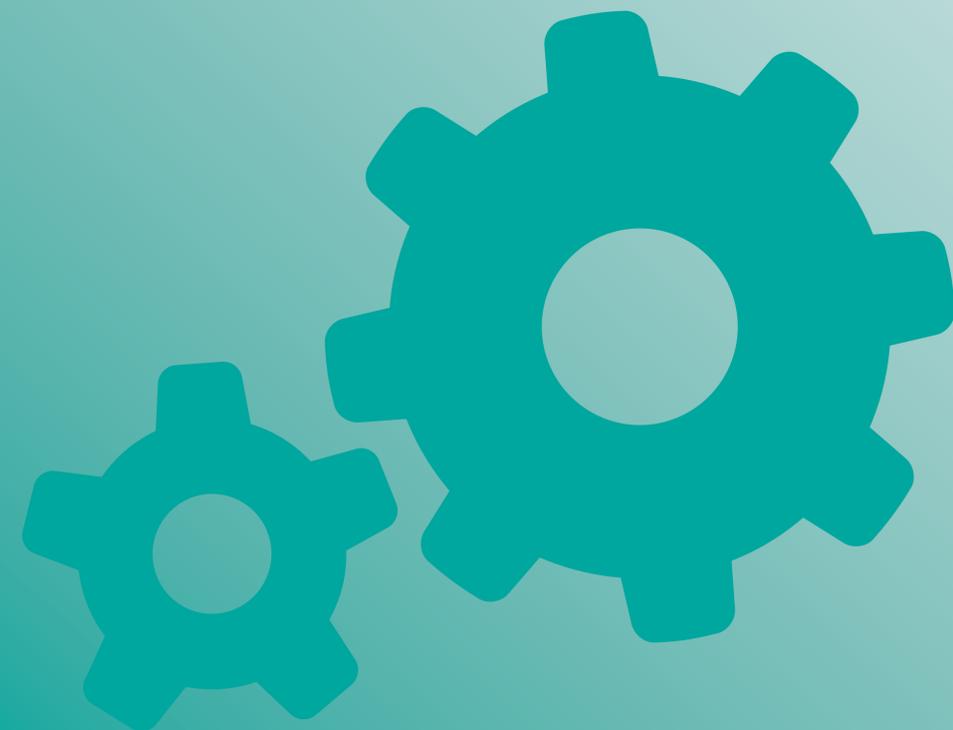
Here is TENER in all parts of the verb:



Look at the following website for more information on using the verb 'tener' when giving descriptions:
<https://www.bbc.co.uk/bitesize/topics/zfgt6v4/articles/zkmgwvx>

<u>TENER = TO HAVE</u>
Tengo = I have
Tienes = you have
Tiene = he/she has
Tenemos = we have
Teneis = you all have
Tienen = they have

Religious Studies





CHRISTIANITY KNOWLEDGE ORGANISER



Overview

Christianity is one of the world's major religions. It is the **world's largest religion**, with about 2.4 billion followers.

Christians (like Jews and Muslims) believe in one **God**, who created the world and all that is in it.

Christians believe in the teachings of **Jesus Christ**, who was a middle-eastern preacher and healer who lived around 2,000 years ago.

Christians believe that Jesus Christ was sent down to earth to save people, by taking their punishment and dying on the cross.

The holy book in Christianity is called **the Bible**. A **church** is a building designed for Christian worship.

An artist's image of Jesus Christ giving the 'sermon on the mount.'



Answers to Important Questions and Key Vocabulary

<p>Where do Christians worship God?</p> 	<p>-Christians can pray in any place, but the most common location is in a purpose-built building called a church. Churches can be very different – old, new, plain or highly decorated. Often, the floor plans of churches are shaped in a cross.</p> <p>-Church services often include hymns, prayers, and readings from the Bible.</p> <p>-Common church features include altar tables, lecturns, pulpits, fonts and stained glass windows.</p>	<p>Key Vocabulary</p> <p>God</p> <p>Jesus</p> <p>Bible</p> <p>Cross/ Crucifix</p> <p>Commandments</p> <p>Holy Trinity</p> <p>Catholic</p> <p>Protestant</p> <p>Orthodox</p> <p>Disciples</p> <p>Saint</p> <p>Church</p>
<p>What is the Bible?</p> 	<p>The Bible is the holy book of Christians. It contains the Old and New Testaments. The Old Testament is similar to the Jewish Bible and was written before Jesus' birth. The New Testament contains stories about Jesus, written by those who knew him.</p>	
<p>How do Christians believe that people should live their lives?</p> 	<p>-Christians believe that people should be compassionate to one another, and show respect to God, themselves and one another.</p> <p>-Christians believe that praying to God helps them to say sorry for the things that they have done wrong, and thank them for the blessings given to them.</p> <p>-Christians believe that God wants them to carry on the good work that Jesus did in the world.</p>	
<p>How many different types of Christians are there?</p> 	<p>-There are many different denominations (types) of Christians. All Christians were once Catholics, but other groups branched off many years ago.</p> <p>-The biggest Christian denomination is still Catholicism. To Catholics, the Pope is Christ's representative on earth. Other major groups include Protestants (including Anglican/ Church of England faiths) and Orthodox.</p>	

Christian Beliefs

God's Creation



-Christians believe that God created the Earth and everything in it in 6 days, resting on the 7th.

-The story of creation tells Christians that at first everything was dark, until God intervened and created matter.

-Details about this are found in the Bible in Genesis 1 and 2.

The Holy Trinity



-Christians believe that God can be seen in three ways, known as the Holy Trinity:

- The Father – Creator of the world;
- The Son – Who came to Earth as Jesus;
- The Holy Spirit – God's power within Christians.

The Ten Commandments

-In the Bible, ten 'commandments' are shared, which Christians should aim to live their lives by:

1. You shall have no other Gods but me.
2. You shall not make for yourself any idol.
3. You shall not misuse the name of the Lord your God.
4. You shall remember and keep the Sabbath day holy.
5. Respect your father and mother.
6. You must not commit murder.
7. You must not commit adultery.
8. You must not steal.
9. You must not give false evidence against your neighbour.
10. You must not be envious of your neighbour's goods.

The Life of Jesus Christ



- Christians believe that Jesus was the son of God. He was born to ordinary parents, Mary and Joseph, in Bethlehem. Christians celebrate the birth of Jesus on 25th December – Christmas Day.

-Jesus travelled around, teaching people about God and helping the sick. He chose 12 men to travel with him. They were his special companions and are known as the disciples.

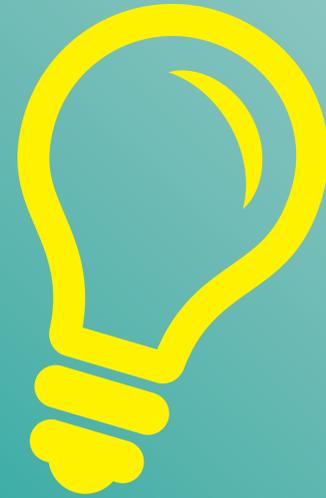
-Jesus was sentenced to death for calling himself the son of God. He had a final meal with his disciples (known as 'The Last Supper') before being crucified. He is said to have died for the sins of man.

Top 10 Facts!

1. Christians believe that God is everywhere, and sees and knows everything.
2. About 1/3 of the world's population are Christian.
3. The word Christ comes from the Greek word meaning Messiah – God's chosen one.
4. Although Christmas is celebrated on December 25th, no one knows exactly what date Jesus was born on.
5. Sunday is the holiest day in Christianity – many people meet to worship on Sunday.
6. There is very little written about Jesus before the age of about 30, when he began preaching.
7. Jesus knew that he was going to be betrayed, and that he would die. He tried to warn his disciples of this at the Last Supper.
8. Jesus was buried in a tomb, but the tomb was found later. He then appeared to the disciples.
9. Jesus eventually went back up to heaven to be with God – this is called the ascension.
10. The cross is the symbol of Christianity – a reminder that Jesus was crucified.

Christianity Timeline

- | | | | | | | | | |
|--|--|--|--|---|--|--|--|---|
| Beginning of time: God creates the world and everything in it. | Around 0 CE: Jesus is born in Bethlehem. | c.28CE: Jesus begins healing and preaching. He chooses 12 disciples. | c.30CE: Jesus feeds 5,000 with 5 loaves of bread and 2 fish! | c.33CE: Jesus holds the Last Supper. He is double-crossed by Judas. | c.33CE: Jesus is executed on the cross and then resurrects days later. | c.40CE: Church of Jerusalem – first Christian church – is founded. | c.1057CE: Orthodox Church breaks from Catholicism. | c.1534CE: Henry VIII forms the Church of England. |
|--|--|--|--|---|--|--|--|---|



Geography





What are the global impacts of climate change?

Global positive impacts

- Energy consumption may decrease (because less need for heating)
- Longer growing seasons for farming (agriculture)
- Frozen regions such as Canada may be able to grow crops



Global negative impacts

- Sea level rise will affect 80 million people
- Tropical storms will increase in strength
- Diseases such as malaria increase, another 280 million people may be affected
- Species in affected areas (e.g. Arctic) may become extinct



What are the impacts of climate change on the UK?

UK Positive impacts

- Crops such as oranges, grapes and peaches can be grown in the UK
- Winter heating costs will be reduced
- Accidents on roads in winter will be less likely



UK negative impacts

- Sea levels rise flooding low areas e.g. east England
- Scottish ski resorts may have to close due to lack of snow
- Drought and flooding becomes more likely as extreme weather increases
- Water supplies under pressure as there is more need for water in hotter summers

How can climate change be managed?

Mitigation is reducing or preventing the effects of something from happening. These strategies are:

- Alternative energy - solar, wind, tidal power reduces the use of fossil fuels, so less CO₂ is produced
- Carbon capture—storing waste gases deep underground
- Planting trees—encouraging **afforestation** reduces CO₂ levels in the atmosphere during photosynthesis
- International agreements - countries sign treaties e.g. the Kyoto Protocol in 2005 to reduce carbon emissions.



How can we adapt to climate change?

Adaptation strategies respond to the effects after they have happened

- Agriculture (farming) must adapt as some crops can't grow in water temperatures. But other crops can be grown e.g. oranges and grapes
- Water supply - water can be transported
- Reducing risk from sea level rise—using sea defences



Key words:

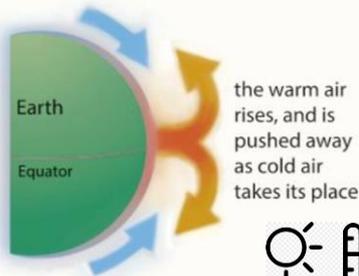
Weather
Climate
Atmosphere
Precipitation
Celsius
Relief
Frontal
Convictional
Temperature
Thermometer
Depression
Air masses
Climate graph

Climate - the average atmospheric conditions over long time periods, weeks, months, years

Weather - what is happening in a particular place at a particular time, usually over short periods, hours or days, e.g., rain, blizzard, sunny and calm

Weather can be measured using a number of instruments.

Thermometer for temperature
Barometer for air pressure
Rain gauge for precipitation
Anemometer for wind speed

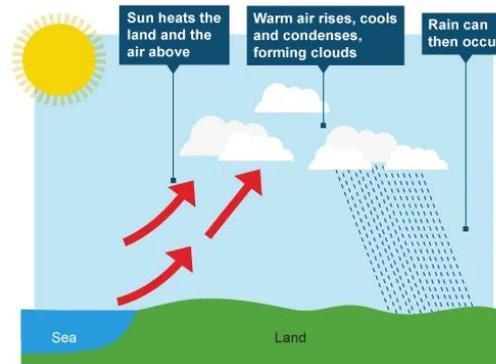
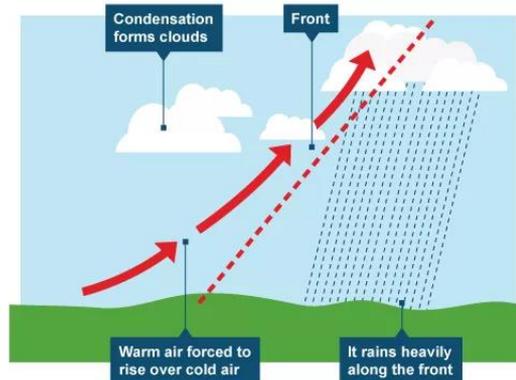
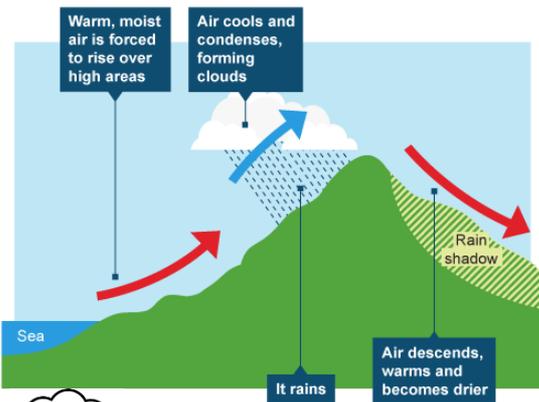


The heat from the sun powers our weather by causing warm air to rise and cool it then returns back to earth

As air **rises** it **cools**, **condenses** and forms **clouds**. Rising air also creates **low pressure**. Where this happens around the globe there is rainfall. Where air is **sinking** there is no cooling, condensing and clouds so there is no rain. This is known as **high pressure**

There are three main types of rainfall

Relief rainfall is common on the west coast of the UK. The UK is affected by frontal rain as two air masses collide and heat on summer days can create convectional rainfall and thunderstorms

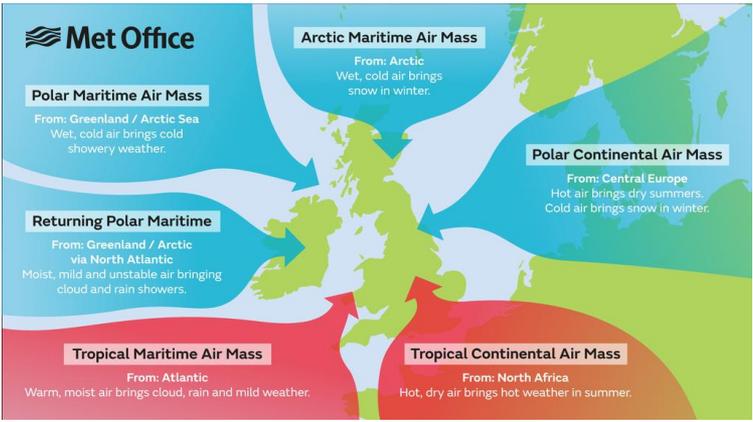


In each type of rainfall it is important to know what causes the air to rise and cool

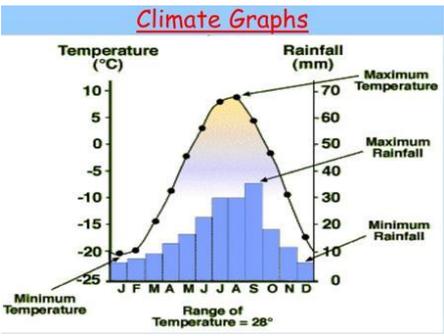




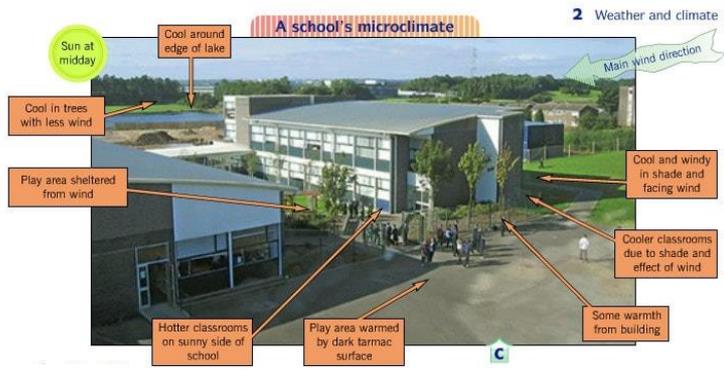
Air masses can affect the weather of the UK. Because we have Ocean to the West and land to the East these air masses can bring dry and wet air. If they blow from the south the temperature increases if they blow from the north the temperatures will fall



Microclimates
Smaller places like our school, cities and even gardens can have a microclimate.
Definition *The climate of a very small or restricted area, especially when this differs from the climate of the surrounding area:*



One way to show climate data is on a **climate graph**. This will have two vertical axis one for temperature the other for precipitation. Months are along the horizontal axis. It is important to read these axis carefully. Range of temperature = maximum temperature – minimum temperature.

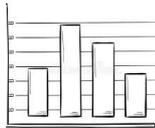


To investigate our schools microclimate we need to.....

1: Collect the data. Groups were allocated an area of school and temperature, wind speed and % shade were recorded



2: Back in the classroom the data was collated and graphs drawn and placed on a map to show the data for all locations



Our conclusion was thatwe used our data to make a decision...does our school have microclimates?

Evaluating the experiment. How could we make our results more reliable? Collect more data over a longer period
Compare winter and summer
Collect What difference would this all make to our conclusions?





Design Technology





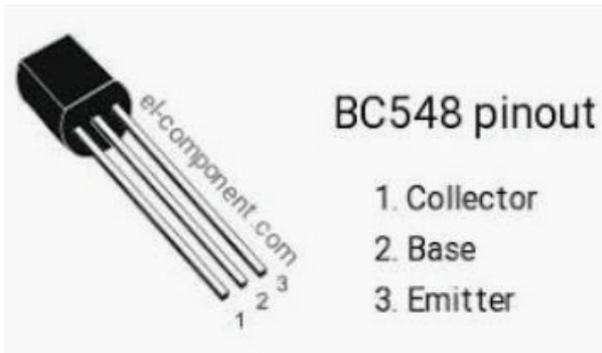
TRANSISTOR – (Electronic Switch)

Transistors can be regarded as a type of switch, as can many electronic components. They are used in a variety of circuits and you will find that it is rare that a circuit built in a school Technology Department does not contain at least one transistor. Transistors are manufactured in different shapes but they all have three leads (legs).

The **BASE** - which is the lead responsible for activating the transistor.

The **COLLECTOR** - which is the positive lead.

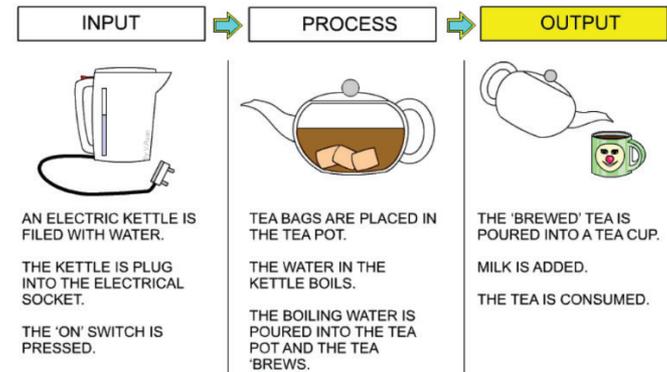
The **EMITTER** - which is the negative lead.



SYSTEMS DIAGRAMS

A simple systems diagram is seen below. This describes making a cup of tea, from the filling an electric kettle, brewing the tea, to pouring the tea into a cup. Remember, almost every process can be divided into INPUT, PROCESS and OUTPUT. When learning about systems diagrams and how they can be used, it is a good idea to practice drawing them, by describing a simple process, such as making a cup of tea.

SAMPLE SYSTEMS DIAGRAM





1. Woods

Man-Made Woods

Medium density fibreboard (MDF)	Has a smooth even surface & easily machined and painted. Available in water and fire resistant form. Can veneer or paint to improve appearance. Used for cheap furniture
Chipboard	Made from chips of wood glued together with urea formaldehyde. Usually veneered with an attractive hardwood or plastic laminate Used for kitchen & bedroom furniture
Plywood	A very strong board constructed using layers of veneer glued together with the grains at 90 degrees to each other. Interior and exterior grades available. Uses, furniture, boats
Hardboard	A very cheap particle board Can have a laminated plastic surface Used for kitchen units and furniture back panels

Hard Woods

Oak	A very strong light brown wood Open grained Very hard but quite easy to work with Used for quality furniture, beams and veneer
Mahogany	Reddish brown in colour Easy to work with Used for indoor furniture, bars and veneers
Beech	Has a straight grain & light in colour Very hard but easy to work with Can be steam bent. Used for toys, door handles etc
Ash	Open grain & easy to work with Pale in colour and often stained black Can be laminated, by splitting into veneers and gluing together

Soft Wood

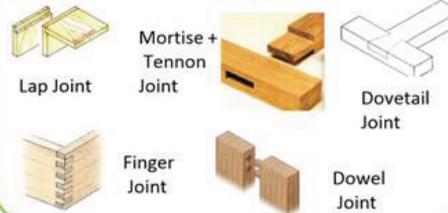
Pine	Pale yellow colour with dark grain lines Medium weight, stiff and stable Inexpensive Used for DIY & constructional joinery. Also for furniture
------	---

1: Joining Methods

Wood joints can be either permanent of temporary depending on the type and if glue is used.

Permanent:	Temporary:
When we do not want to take the pieces apart again	When we will, or might need to take pieces apart again
Glues, welding, rivets	Screws, bolts, nails

1.1 Wood Joints



3. Adhesives

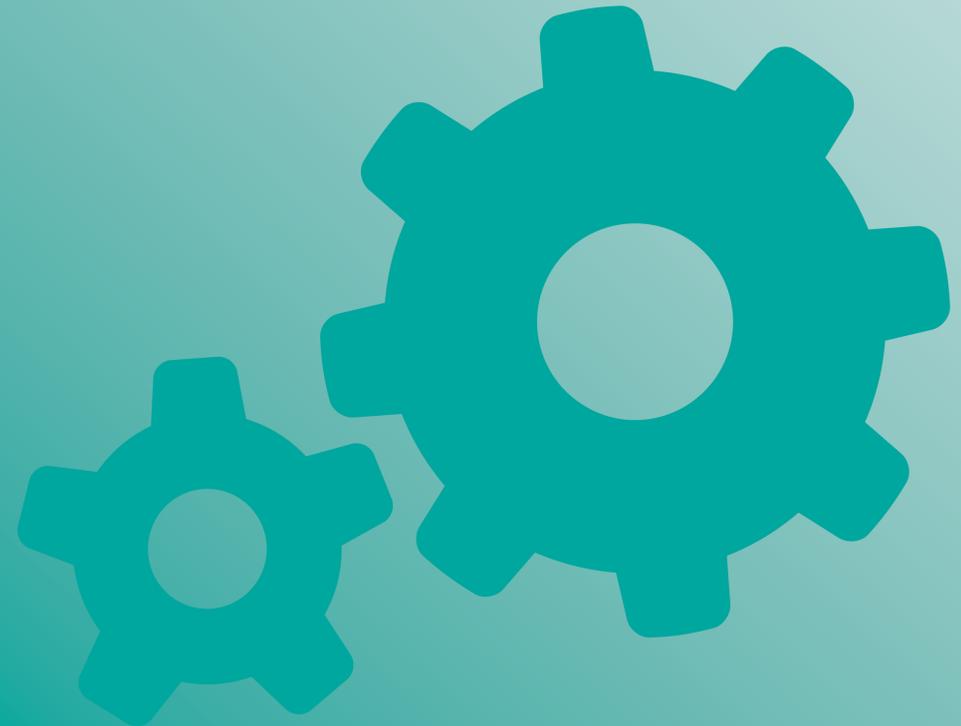
P.V.A. – Poly Vinyl Acetate – best for joining 2 pieces of wood together

Epoxy – a *thermosetting* resin that can be used to bond most types of material

Contact Adhesive – a glue type that creates a tacky bond on both surfaces to be joined. It can be used with most materials.

Natural Timbers		Manufactured Boards
Hardwood	Softwood	
<p>Hardwoods are usually obtained from deciduous trees, which lose their leaves in autumn.</p> <ul style="list-style-type: none"> <input type="checkbox"/> usually grow in warmer more humid climates, mainly in South America and Asia <input type="checkbox"/> grow slowly (80+ years) <input type="checkbox"/> are more difficult to sustain than softwoods <input type="checkbox"/> are more expensive than softwoods <input type="checkbox"/> are strong and hardwearing. 	<p>Softwoods are usually obtained from coniferous trees, which keep their leaves in winter and are also known as evergreens. These grow quickly which makes them sustainable as they are renewable. This also makes them cheaper when compared to hardwoods.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Usually grow in colder climates and are mainly grown in Scandinavia and Northern Europe <input type="checkbox"/> Grow thin, needle-like leaves <input type="checkbox"/> Grow relatively quickly (30 years) <input type="checkbox"/> Are easier to sustain than hardwood trees <input type="checkbox"/> Are easy to cut and shape <input type="checkbox"/> Are usually cheaper than hardwoods 	<p>Manufactured boards are made from the waste sections of felled trees – the parts which are of little use as planks. The wood is reduced to pulp, particles or thin strips and bonded together using special adhesives or resins. Manufactured boards are made as alternative to natural timber.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Come in sheet form (usually 1.2 x 2.4m) <input type="checkbox"/> Are extremely stable and of uniform thickness <input type="checkbox"/> Are less expensive than laminating planks of timber <input type="checkbox"/> Can be covered with veneers <input type="checkbox"/> Are available in a variety of thicknesses (3, 6, 9, 12, 15, 18, 22mm)

English





Context:



- *Stormbreaker* is the first in the Alex Rider series.
- Spy based thriller
- Mystery and suspense

Plot:



Alex's uncle Ian dies in a car crash. Alex finds out that his uncle actually worked for MI6 as a spy. Alex is recruited by MI6 to stop tech mogul Herod Sayle from releasing a biological bomb.

Characters:

- Alex Rider
- Ian Rider
- Herod Sayle
- Mr Grin
- Nadia Vole

- Yassen
- Fox
- Eagle
- Snake
- Wolf
- Mr Blunt



Authors intentions:



To write a spy novel to appeal to a younger generation after feeling that the James Bond films had lost their magic.

Key quotes:

- 'When the doorbell rings at three in the morning, it's never good news.'
- 'Double O Seven? Double O Nothing's more like it.'
- 'Alex knew he was in trouble the same way an animal does.'
- 'You're never too young to die.'
- 'At the same time the roof buckled and three huge metal fingers tore through the skin of the car like a fork through an eggshell, trailing dust and sunlight.'

Themes:



- Grief
- Mortality
- Coming of age
- Fear
- Lies & Deceit

Key vocabulary:



Ornate
Presumably
Inquiry
Humble
Accommodate
Eerie
Coup
Neutralise
Embassy

Structure:



Short sentences feature heavily to create suspense and tension, along with the use of ellipses.

Analytical verbs:



- Illustrates
- Reveals
- Implies
- Emphasises
- Highlights
- Presents
- Represents
- Symbolises
- Suggests



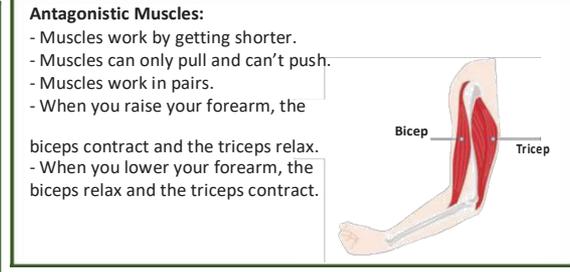
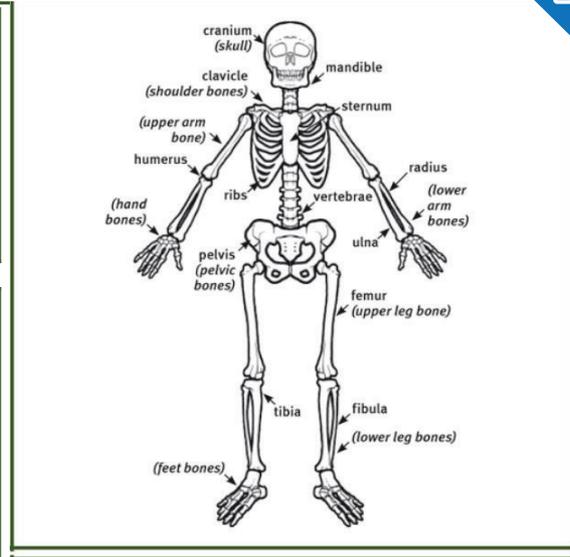
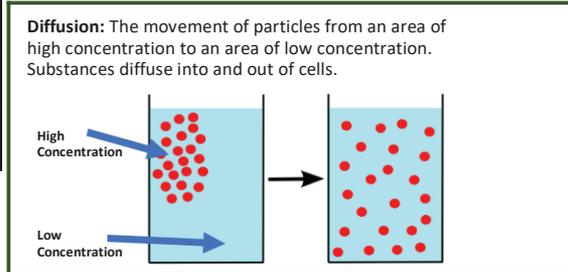
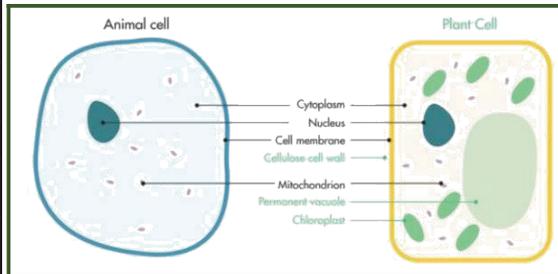
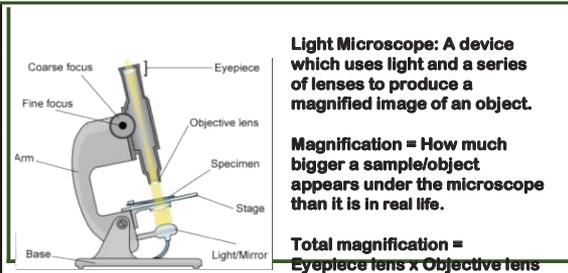
Science



Keyword	Definition
Cell	Basic unit of life. Unicellular organisms only have one cell. Multicellular organisms have many cells.
Cell Membrane	Controls the movement of substances in and out of the cell.
Cytoplasm	Jelly-like substance where chemical reactions take place.
Nucleus	Carries genetic information and controls the cell.
Mitochondria	Where respirations takes place.
Cell Wall	Made of cellulose, provides support to the cell.
Vacuole	Contains cell sap.
Chloroplasts	Contains the green pigment chlorophyll, the site of photosynthesis.
Tissue	Something made from just one type of specialised cell.
Organ	Something made from different groups of specialised cells all working together.
Organ System	When a number of organs work together.
Synovial Joint	A freely moveable joint. Examples include the hip, shoulder, elbow and knee joints.

Further Reading:

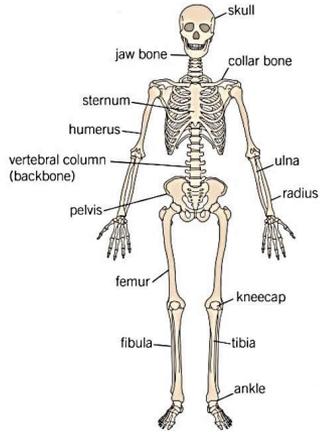
<https://www.bbc.com/bitesize/guides/z9hyvcw/revision/2>



Red Blood Cell	Sperm Cell	Root Hair Cell	Palisade Cell	Nerve Cell	Egg Cell
Carries blood around the body. Adaptations: No nucleus, large surface area and biconcave shape.	Carries the male genes. Adaptations: Tail for swimming, mitochondria for energy, acrosome to break down the egg cell.	Take in water from the soil. Adaptations: Long & thin; large surface area for maximum water absorption. Thin cell walls.	Production of food for the plant. Adaptations: Tall and thin. Lots of chloroplasts to absorb sunlight for photosynthesis.	Carry signals around the body. Adaptations: Long axon. Myelin sheath.	Carries the female genes. Adaptations: Lots of mitochondria. Outer layer hardens once fertilised.



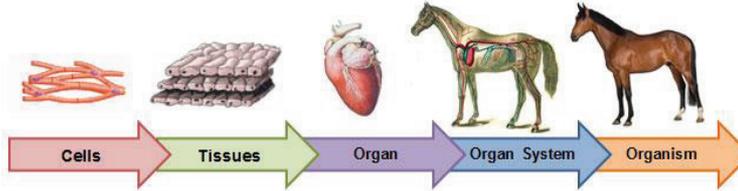
SKELETON AND ITS FUNCTION



- Support** → for the body and holds internal organs in place. Hard and strong bones create a framework for your muscles and organs.
- Protection** → of vital internal organs from being damaged; the skull is protected by the skull.
- Movement** → when a muscle pulls on a bone. The skeleton moves at joints.
- Making blood cells** → bone marrow in some bones produce red blood cells and some white blood cells.

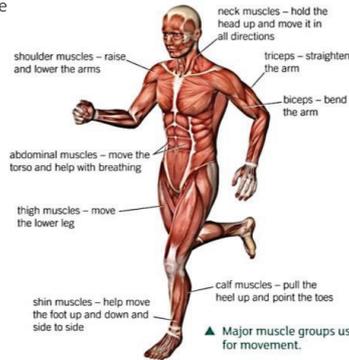
LEVELS OF ORGANISATION

Multicellular organisms have five layers of organisation.



MUSCLES IN THE BODY

Muscles are a type of tissue – lots of muscle cells work together to cause movement. Muscles can only pull – they work by getting shorter (contract). Muscles are attached to bones by tendons. When a muscle contracts, it pulls on a bone. If the bone is part of a joint, the



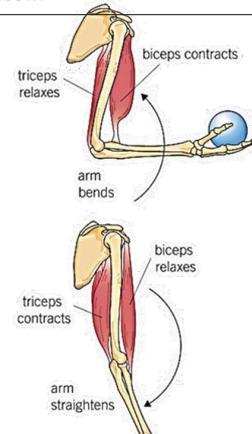
How do muscles work to bend and straighten the arm?

To bend the arm:

- Biceps muscle (front of the arm) contracts
- Triceps muscle relaxes
- Tendons of the biceps is attached to the radius. This allows the biceps to pull the lower arm up.

To straighten the arm:

- Biceps muscle relaxes
- Triceps muscle contracts
- Triceps pulls at the back of the elbow.



JOINTS

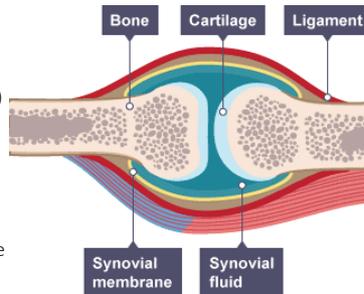
Most joints are flexible, some are joined rigidly and cannot move.

Hinge joint → movement backwards and forwards (knee/elbow)

Ball & socket joint → movement in all directions (hip/ shoulder)

Fixed joint → do not allow any movement (skull)

If two bones just moved against each other, they would eventually wear away. This can happen in people who have a condition called arthritis. To stop this happening, the ends of the bones in a joint are covered with cartilage. This is kept slippery (reduces friction) by a liquid called synovial fluid.



KEYWORD	DEFINITION
Antagonistic muscle pairs	A pair of muscles working together to create movement at a joint – as one muscle contracts, the other relaxes.
Bone	A tissue that forms a hard structure, used to protect organs and for movement.
Bone marrow	Tissue found inside some bones where new blood cells are made.
Cartilage	Smooth tissue found at the end of bones. This reduces friction between them preventing rubbing.
Cells	The smallest functional unit of a living organism. It contains parts to carry out life processes.
Circulatory system	Transports substances around the body in the blood.
Digestive system	Breaks down and absorbs food molecules.
Immune system	Protects against infections.
Joints	Parts of the skeleton where bones meet.
Ligaments	Connect bones in joints.
Multi-cellular	Living things made up of many types of cells.
Muscular skeletal system	Supports the body and causes movement.
Organ	Group of different tissues working together to carry out a function.
Organ system	A group of organs working together to carry out a function.
Reproductive system	Produces sperm and egg cells for the production of new organisms.
Respiratory system	Takes in oxygen and removes carbon dioxide from the blood.
Skeleton	All the bones in an organism.
Tendons	Connect muscle to bones.
Tissue	Group of cells of one type, working together to perform a function.



Keyword	Definition
Solution	A liquid mixture in which a solute has dissolves in the solvent
Solute	A minor component in a solution – dissolves in the solvent
Solvent	The liquid which the solute dissolves in
Saturated	The point at which no more solute can dissolve
Pure	Only one type of particle
Dissolve	Solid is mixed into a liquid to become a solution
Particle	A small piece of matter – everything is made up of these
Filter	To remove solid particles from liquid particles
Evaporate	Particles go from a liquid to a gas
Separate	To remove one type of particle from another
Soluble	A substance is capable of dissolving
Mixture	More than one type of particle
Solubility	How much of a substance will dissolve in a solution
Insoluble	A substance is not capable of dissolving

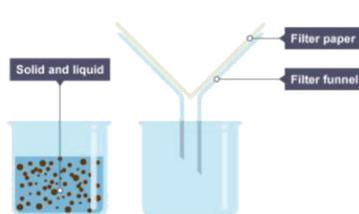
Further Reading:

<https://www.bbc.com/bitesize/guides/zgvc4wx/revision/1>

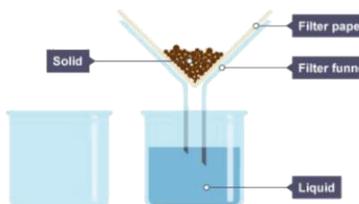


Filtration:

- A method for separating an insoluble solid from a liquid.
- A beaker containing a mixture of insoluble solid and liquid. There is filter paper in a filter funnel above another beaker.

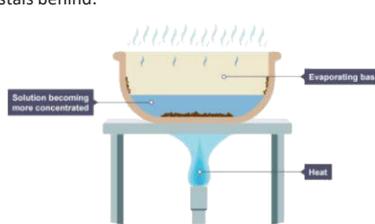


- The mixture of insoluble solid and liquid is poured into the filter funnel.
- The liquid particles are small enough to pass through the paper as a filtrate. The solid particles are too large to pass through the filter paper and stay behind as the residue.



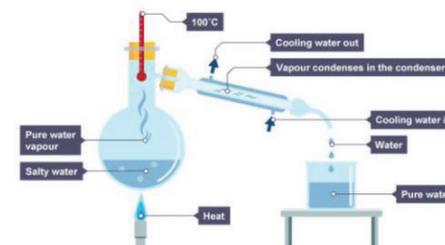
Evaporation:

- A method used to separate a soluble solid from a liquid.
- A solution is placed in an evaporating basin and heated with a Bunsen Burner.
- The water will begin to evaporate and solid particles will begin to form in the basin.
- Once the water has evaporated, it will leave solid crystals behind.



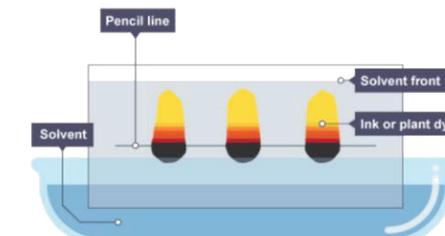
Distillation:

- A method used for separating the solvent from a solution. E.g. water can be separated from a salt solution because the water has a much lower boiling point than the salt.
- Salt water is heated. The water evaporates and its vapours rise.
- The vapours rise and pass into the condenser, where they cool and condense.
- Liquid water drips into a beaker and the salt will be left in the round bottom flask.



Chromatography:

- Paper chromatography is a method for separating dissolved substance from one another. Often used when the dissolved substance are coloured such as inks, food colouring or plant dyes.
- A pencil line is drawn on the paper, and spots of ink are placed on the line.
- There is a solvent usually water or ethanol in a container/beaker.
- The paper is lowered into the solvent. The solvent travels up the paper, taking some of the substances with it.
- As the solvent travels up the paper, the different coloured substances are spread apart.





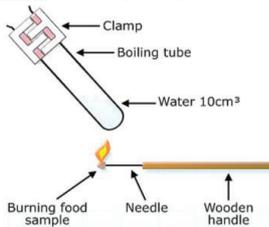
ENERGY IN FUEL

- Energy is stored in food and fuel.
- Energy in fuel is used to heat homes and cook food.
- Fuel is also burnt in power stations to produce current in order for electrical appliances to work at home.

ENERGY IN FOOD

- Different foods are stores of different amounts of energy.
- When you are asleep your body needs energy for keeping warm and breathing.
- Children need more energy than adults so their brain, bones and muscles can grow.
- If you take in more energy than you need, your body will store it as fat to use in the future.

PRACTICAL: Releasing energy in food

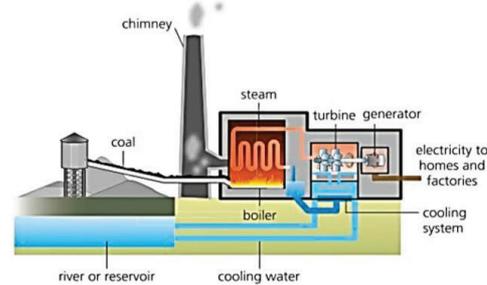


Once the food stops burning, the water should be stirred with the thermometer and the temperature recorded. By recording the temperature increase in the water, you can work out how much energy the food contains.

Energy can be **dissipated/ wasted** due to **friction** (energy transferred to a thermal store / sound) or when objects get **hot** and transfer energy to anything at a lower temperature. The efficiency of an appliance can be calculated by:

$$\text{Efficiency} = \frac{\text{Useful Energy Output}}{\text{Energy Input}} \times 100\%$$

POWER STATIONS



1. Fuel is burnt in a furnace to heat water in the boiler.
 2. The water turns to steam; this turns a turbine.
 3. The turbine turns a generator which generates electricity.
- ⊕ Fossil fuels are reliable and produce lots of electricity.
 - ⊖ Release carbon dioxide and contribute to global warming.
 - ⊖ Produce pollutants; sulfur dioxide, nitrogen oxides and particulates.

RENEWABLE RESOURCES



- ⊕ No carbon dioxide released
- ⊕ May be free to use (wind and Sun)
- ⊖ Equipment may be expensive
- ⊖ Can be unreliable (weather/ time of day dependent)



ENERGY STORES:

1. Chemical
2. Thermal
3. Elastic
4. Kinetic
5. Gravitational potential
6. Nuclear
7. Magnetic
8. Electrostatic

(Revision tip: use the first letter of each store to write a mnemonic to help you remember them).

Energy is transferred by:

1. Heating
2. Mechanically (by movement/ change in position)
3. Electric current
4. Waves (sound & light)

REDUCING ENERGY USE

1. Use fewer appliances.
2. Use appliances with a lower power rating.
3. Use appliances for fewer hours.
4. Insulate the home; this reduces the rate at which energy is transferred to surroundings; reducing need to heat the house.
5. Governments can raise awareness; this will make fuel last longer and benefit the environment.

ENERGY AND POWER

- The power rating of an appliance tells you *how much energy is transferred per second* – the **rate** of energy transfer.
 - **Power (W) = energy (J) ÷ time (s)**
 - You can calculate the cost of using an appliance at home using the equation: **cost = power (kW) x time (hours) x price (per kWh)**
- NOTE:** You may need to convert units when completing calculations.

KEYWORD	DEFINITION
Chemical energy store	Emptied during chemical reactions when energy is transferred to surroundings; e.g. burning fuel.
Dissipation	Becoming spread out wastefully to the surroundings.
Elastic energy store	Filled when a material is stretched or compressed; e.g. stretching a spring.
Energy	Energy is needed to make things happen.
Energy resources	Something with stored energy that can be released in a useful way.
Fossil fuels	Non-renewable energy resource formed from dead animals and plants, millions of years ago. E.g. coal, oil and natural gas.
Gravitational potential energy store	Filled when an object is raised; e.g. book on a shelf or when climbing a ladder.
Joules	The unit of energy, symbol J 1 kilojoule (kJ) = 1000 J
Kilowatt hour	The unit of energy used by electricity companies, symbol kWh.
Kinetic energy store	Filled when an object speeds up/ moves; e.g. when a car accelerates.
Law of conservation of energy	Energy cannot be created or destroyed, only transferred between stores.
Non-renewable	An energy resource that cannot be replaced and will be used up, such as coal, oil or gas, or nuclear.
Power	How quickly energy is transferred by a device (watts).
Renewable	An energy resource that can be replaced and will not run out; e.g. solar, wind, waves, geothermal and biomass.
Thermal energy store	Filled when an object is warmed up; e.g. heating water in a kettle.
Watts	The unit of power, symbol W 1 kilowatt (kW) = 1000 W

Physical Education





TERM 1



Year 7 term 1 will be split into 2 parts –

1 – Half term 1 is the induction unit where pupils will experience all our activities.

2 – Half term 2 pupils are set and will complete 2 block of activity

ATHLETICS

BADMINTON

NETBALL

HOCKEY

FOOTBALL

GYM

DANCE



Subject Knowledge Organiser

Football – Short/Long Pass, Control, Block Tackle, Throw In & Heading



Short pass

A short side foot pass enables a team to quickly pass a ball and help maintain possession. It is used for accuracy.

- Move parallel to the ball and place your non-kicking foot to the side of the ball.
- Keep your eye on the ball until you have it under your control.
- Look up to see where is the best place to pass it.
- On selection of your pass, maintain a strong body position.
- Swing your kicking foot through and strike the ball with the inside of your foot.
- Aim to hit the middle of the ball to ensure it stays close to the ground.
- Keep looking at your target.
- Follow your kicking leg through towards the intended target.
- The speed of the kicking leg will direct how hard you kick the ball.

Long pass

A long pass is an attacking skill that allows players to switch the direction of the attack very quickly to create space, find a teammate or to catch out the opposition.

- Move parallel to the ball and place your non-kicking foot to the side of the ball.
- Keep your eye on the ball until you have it under your control.
- Look up to see where is the best place to pass the ball.
- On selection of your pass, maintain a strong body position.
- Explosively bring your kicking foot through and strike the ball with laces of your football boot.
- Aim to hit the middle of the ball to ensure it stays close to the ground or the lower half of the ball if you want to lift it over opposition players.
- Keep looking at your target.
- Follow your kicking leg through towards the intended target and your body over the ball.
- The speed of the kicking leg will direct how hard you kick the ball.

Control

Good control of the football is an essential skill to maintain possession of the ball from the opposition and, if done accurately, gives the player more time to make the correct next decision.

- Keep your eye on the ball at all times.
- On contact with the ball, withdraw the foot slightly to take the momentum out of the ball (this is known as "cushioning").
- Aim to contact the middle of the ball to ensure that it stays close to the ground and does not bounce up.
- Once under control, move the ball out of your feet to allow the next decision to be made.

Block tackle

The block tackle is an essential skill for winning the ball back in football. It is mainly used when confronting an opponent head on and it is important to complete it with good timing and technique to prevent injury or fouls.

- Close down your opponent quickly but do not rush uncontrolled at them.
- Try to reduce any space around you and monitor for passing options.
- Stay on the balls of your feet, arms slightly out to jockey your opponent.
- Keep your eye on the ball and wait for a clear view of the ball.
- When you can see most of the ball, transfer your weight from your back to front foot and move the inside of your foot towards the ball.
- Maintain a strong body position.

Throw-in

The throw-in is the legal way to restart the game if the ball has gone out of play from either of the side-lines.

- Hold the ball with both hands and ensure that the thumbs are behind the ball and fingers are spread.
- Hold the ball behind the head with relaxed arms and elbows bent.
- Keep your feet shoulder-width apart.
- Face your target.
- Lean back with both feet in contact with the ground.
- Slightly bend your knees and arch your head, neck, shoulders and trunk.
- When ready, propel yourself forward and release the ball just as it passes your head.
- Once the ball is released, bring your strongest leg forward and out in front of you for balance.

Heading

The header can be an attacking or defensive skill and is used to try and win the ball when it is in the air.

- Keep your eyes on the ball.
- Use your forehead to make contact with the bottom of the ball for a defensive header or the top of the ball for an attacking header.
- For a defensive header it is important to get good height and distance but for an attacking header you need power and accuracy.
- You can also use flick headers to pass to a team mate.



Subject Knowledge Organiser

Netball – Bounce Pass, Chest Pass, Shoulder Pass & Pivoting



Bounce Pass

A bounce pass is a short pass that enables the player to find a teammate in a crowded area. The height of the ball makes it difficult for the opposition to reach and intercept.

Stage one

Feet shoulder-width apart in opposition, with knees bent. Place hands each side and slightly behind the ball, with the fingers comfortably spread. Hold the ball at waist level, with elbows tucked in.

Stage two

Step in the direction of the pass, through extending your legs, back and arms. The wrist and fingers should be forced through the ball releasing it off the first and second fingers of both hands. Follow through with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

Chest Pass

A chest pass is a very fast and flat pass which enables a team to move quickly up a court in a precise and accurate fashion.

Stage one

Stand with feet shoulder width apart and on the balls of your feet, with back straight and knees slightly bent. Place hands on the sides of the ball with the thumbs directly behind the ball and fingers comfortably spread.

Stage two

The ball should be held in front of the chest with the elbows tucked in. Step in the direction of the pass, by extending their legs, back, and arms. Push the ball from the chest with both arms (not from one shoulder). Fingers are rotated behind the ball and the thumbs are turned down.

Stage three

The back of the hands face one another with the thumbs straight down. Make sure the ball is released off the first and second fingers of both hands. Follow through to finish up with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

Shoulder Pass

A shoulder pass is a very dynamic, fast and long pass which enables a team to switch positions on court very quickly to either find a player in space or break defensive screens.

Stage one

Player's feet should be shoulder width apart in opposition. Opposite foot forward to throwing arm. Stand on balls of feet with toes pointing toward target, and knees slightly bent. Hold the ball at head height, slightly behind your head. Elbow should be at a 90° angle. Fingers spread behind the ball.

Stage two

Step in the direction of the pass by transferring your body weight from back foot to front foot. Pull the arm through with the elbow leading. To follow through, fully extend your arm and wrist. Point your fingers in the same direction as the pass, with palms facing down.

Pivoting

The pivoting action is a swivel movement that allows the player to move on a fixed axis to either pass or shoot.

Stage one

Run towards the ball and jump by extending the legs and ankles. Keep your eyes firmly fixed on the ball. Bring your hands out in front of your body at chest height with fingers spread open and pointing up.

Stage two

In the air catch the ball with thumbs an inch or two apart making a 'W' shape. Land on the ball of one foot on the ground. Flex your knee and ankle as your foot hits the floor.

Stage three

Stand with knees slightly bent and your feet shoulder width apart. Bring the ball into your body to protect it. Pivot by rotating yourself on the ball of your landing foot. Keep your upper body straight and head up. Make sure the hip of your pivoting leg is pointing in the direction you are aiming to pass the ball in. You can move or step with the other foot any number of times. You are not allowed to lift the foot you are pivoting on before you release the ball.

Subject Knowledge Organiser

Hockey – passing, dribbling and elimination skills & tackling



Passing – there are a number of different passes such as, the push pass and the slap pass/hit

Stage one- maintaining correct hockey posture of straight back and bent knees, stand sideways on to the ball with your right foot inline with the ball and your left pointing in the direction the ball will be passed. The stick and ball remain in contact until the release point which is in line with the left foot .

Stage two- complete a push pass whilst dribbling with the ball on open stick, still keeping contact with the stick and ball until release point - this time the direction of the ball can be changed by pushing the ball across your body whilst dribbling but still releasing the ball on the left foot.

Stage three – releasing the ball off the right foot, whilst dribbling the ball can be pushed passed off the right foot, this pass will be disguised , there will be limited contact time with the stick and the ball before release

Dribbling – this enables us to run with the ball

Stage one - maintaining the correct hockey position of straight back and bent knees. Keep the ball on the open stick side, you can use a clock reference e.g. dribble with the ball at 2 o'clock. The ball should remain on the right hand side of the participant and pushed out away from their feet so that they can move easily without kicking the ball .

Stage two- open to reverse stick dribbling, the ball will now move between 1 and 11 o'clock on the clock face reference (side to side), whilst keeping contact with the ball on the flat side of the stick, the left hand at the top of the stick will do the turning , and the right hand will act as a guide and will allow the stick to turn.

Stage three- v-drag elimination- using the previous 2 stages, the participants will dribble the ball towards their opponents stick side and engage the defender, they will then drag the ball back (bottom point of the V) and drive with the ball towards the defenders non stick side

Tackling- this is how we win possession of the ball

Stage one - block tackle pick up. Participants will lead with their left hand at the top of the stick, they will keep their stick parallel to the ground , they will squeeze the ball between them and their partners stick and pick up the ball (flat side of the stick)

Stage two - participant A will dribble straight with the ball, whilst Participant B will perform a block tackle, they will get low to the ground , they will lead with their left foot followed by their left hand, keeping their stick parallel to the ground. Their right hand remains on the stick and will provide the strength in the tackle.

Stage three - the participant with possession of the ball will dribble open to reverse stick , the tackling participant will need to track the ball and time their tackle to maintain good contact with the ball and not to make contact with the oppositions stick.

Tick List

Passing:

- Sideways on
- Low to the ground
- Left foot pointing in the direction of the pass
- Stick and ball contact unit release
- Passing off both left and right feet

Dribbling

- Correct hockey posture
- Contact with the flat side of the stick
- Open stick ball positioning – 2 o'clock
- Open to reverse stick dribbling
- Elimination skills finding the none stick side

Tackling

- Stick parallel to the ground
- Leading with left foot
- Right hand provided the strength in the tackle



Subject Knowledge Organiser

Gymnastics - Key Components of Fitness, Key Terms & Chronology



Key Components of Fitness for Gymnasts

A gymnast requires **flexibility** at the joints to allow for a larger range of motion around a joint.

A gymnast requires **muscular strength** to be able to balance on certain body parts. This is exerting their body against a given force.

A gymnast requires **power** in their arms and legs, which is speed x strength.

A gymnast requires **agility** to change direction at speed.

A gymnast requires **muscular endurance** to keep using the same muscle groups over and over again when performing a skill such as a forward roll.

A gymnast requires a certain levels of **speed** as they slow down their speed and increase their speed depending on the sequence they are performing.

Gymnastics Key Terms

Apparatus The equipment used in gymnastics.

Balance Position A static position, holding a distinct shape.

Dismount To leave an apparatus at the end of a routine.

Equilateral Triangle A triangle in which all three sides have equal length.

Jeté A move where the gymnast springs from one foot to the other.

Pike Body position where the body is bent forward 90 degrees at the waist with the legs kept straight.

Pivot A turn on the ball of the foot.

Plié Feet angled at 90 degrees.

Routine A combination of moves and sequences performed on one apparatus.

Spotting Spotting a landing before take off.

Supporting When a second person assists the gymnast through a move and prepares to cushion them to avoid injury in the event of a fall.

Tuck A position where the knees are bent into the chest, with the body folded at the waist.

Walkovers A move where a gymnast transfers from a standing position to a handstand to a standing position.

Gymnastics Chronology

2000 BC Gymnastics activities are depicted on Egyptian artefacts

1804 The Crown Prince of Denmark believes gymnastics to be useful for military training and creates the Military Gymnastic Institute in 1804.

1928 The first women's Olympic competition (synchronised calisthenics) is held in Amsterdam.

1964 The first Trampoline World Championships are held in London, Uk.

1984 Rhythmic gymnastics is introduced as an Olympic sport in Los Angeles, USA.

2001 The traditional vaulting horse is replaced with a new apparatus, known as a tongue or table, which is ultimately more stable and therefore safer.

2008 Louis Smith is the first British Individual gymnastics medalist in a century, at the 2008 Beijing Olympics, claiming bronze in the pommel horse final.

<https://www.livestrong.com/article/497802-5-components-of-fitness-in-gymnastics/>



Subject Knowledge Organiser

Gymnastics – Travelling, Jump, Roll, Weight on Hands, Balance & Vault



Travelling

Travelling in floor gymnastics is being able to move around the mat using different movements such as rolls, steps, turns, jumps, cartwheels, walkovers, handsprings, and being as creative as possible.

Standing Upward Jump

Bending your legs slightly, jump up while raising your arms forwards and upwards above your head. Keep your arms slightly in front of your body. As you land, it is important to keep your arms raised above your head, and place your feet slightly apart in the 'plie' position at an angle of 45 degrees, with your knees bent. As you make contact with the floor continue to bend the knees to absorb the downward force of landing. Bring your arms down sideways to stabilise the landing, without taking a step.

Forward Roll

From standing, crouch down. Place your hands on the floor in front of you, shoulder-width apart with your fingers facing forwards, while simultaneously placing your chin on your chest. This will ensure your hips are raised high enough and your spine is rounded so you can roll on to your back. Bend your arms as you place your neck on the floor, slightly extending the legs and pushing on the floor with your feet until the roll commences and you roll on to your back. Try to keep your legs straight as you commence the roll forwards. In the last part of the roll, bend your legs tightly so that your heels are close to your bottom. At the point where your feet contact the floor, stretch forwards with your arms so that your head and chest move over your feet. Once your body weight is in a position of balance you will be able to stand.

Cartwheel

Raise your hands above your head and place your leading leg forward. Reach forward to place the first hand (the hand on the same side as the leading leg) on the floor by bending your front leg and bending at the waist. When the first hand contacts the floor, straighten your front leg while kicking upward with your back leg over your head. Continue the movement by rocking over from your first to your second hand (which is still extended above your head). To do this, push strongly against the floor with your first hand, keeping your arms stretched up over your head. As your body rocks over your second hand, bring your second leg down to the ground and place it close to your second hand.

Headstand

Crouch down and place your hands and forehand on the floor to form an equilateral triangle. Your head should be approximately 30cm in front of your hands and your arms bent at an angle of 90 degrees. Extend your legs so that your pointed toes are resting on the floor. By pressing with your hands, slowly move your bottom over your forehead into a balanced position. Maintain the equilibrium by continually pressing with your hands. By exerting more pressure you will reach a point at which you can lift your feet from the floor. Continue to raise your legs above your head by pressing constantly against the floor with your hands. Make sure that your back is kept straight at all times by tightening your bottom and stomach muscles.

Headspring

To obtain the necessary height and rotation, a fast but controlled approached run is required. On take-off, drive your arms upwards and extend the body. Think of the lower body rotating over the upper body. You must still be moving upwards at the point when your hands strike the vault. In the strike phase, the angle of the body and the vault should be between 60 and 80 degrees to the vertical. Your hands should leave the box just before your body reaches the vertical. To achieve this the strike phase must be short and extremely powerful. During post-flight, keep the body as straight as possible. Just before landing, bend the knees.



Subject Knowledge Organiser

HRF – Training Methods, Advantages/Disadvantages of TM & Training Zones



Training Methods

Training can be aerobic or anaerobic. In aerobic exercise, which is steady and not too fast, the heart is able to supply enough oxygen to the muscles. Aerobic training improves cardiovascular fitness. Anaerobic exercise is performed in short, fast bursts where the heart cannot supply enough oxygen to the muscles. Anaerobic training improves the ability of the muscles to work without enough oxygen when lactic acid is produced.

Specific training methods can be used to improve each fitness factor. Circuit training involves performing a series of exercises in a special order called a circuit. Each activity takes place at a 'station'. It can be designed to improve speed, agility, coordination, balance and muscular endurance. Continuous training involves working for a sustained period of time without rest. It improves cardiovascular fitness. Cross training involves using another sport or activity to improve your fitness. It happens when an athlete trains in a different environment. For example a volleyball player uses the power training for that sport to help with fitness for long jump. Fartlek training or 'speed play' training involves varying your speed and the type of terrain over which you run, walk, cycle or ski. It improves aerobic and anaerobic fitness. Interval training involves alternating between periods of hard exercise and rest. It improves speed and muscular endurance. Weight training uses weights to provide resistance to the muscles. It improves muscular strength (high weight, low reps), muscular endurance (low weight, high reps, many sets) and power (medium weight and reps performed quickly).

Advantages and Disadvantages of Training Methods

Continuous Training

Good for aerobic fitness, lose weight accessible, health benefits, good for beginners of all ages, little equipment Boring, not always sport specific, risk of injury does not improve anaerobic fitness

Fartlek Training

Good for team sports, less boredom, easy to use, can mimic the sport, god for team sports Too easy to cheat, can be difficult

Circuit Training

Less boring, easily adapted for fitness/skill, easily adapted to sports, stations can target specific muscle groups Take time to set up, requires equipment

Interval Training

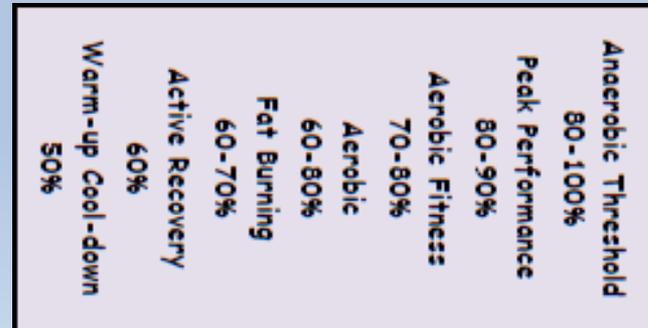
Can be both aerobic and anaerobic, less technical, can mimic a sport, good for sports that require a change of pace Can be boring, easy to cheat hard aspects,

Free weights

Full range of sporting movement, large muscle groups can be worked Risk of injury, need a spotter, more suitable for advance performers, requires good knowledge

Resistance machines

Safer, good for beginners, good for injury rehabilitation Expensive, no functional everyday movements, only focuses on one muscle group



Training Zones



A motif can be a single movement or a phrase of movement (for pupils in school, short phrases are often more helpful as they provide greater scope for development)

A motif contains 'the essence' of the dance; a dominant feature that is repeated, like a reoccurring theme throughout a dance

A motif is usually introduced at the start of a dance, then once established is developed and varied

An entire dance can be built around the development and variation of a few contrasting motifs.

CREATING A DANCE MOTIF

A motif is the main, often recurring theme or element in a movement sequence.

When creating a dance motif always consider:

ACTION	SPACE
DYNAMICS	RELATIONSHIPS

Motifs can be created through the use of **5** basic actions:

- 1 TRAVELLING**
Includes stepping, transferring body weight and sliding.

- 2 JUMPING**
There are various ways of jumping: 2 feet to 2 feet, 2 feet to 1 foot etc.

- 3 TURNS**
1/4, 1/2, 1/3 or full turns. Turns can be performed as a jump.

- 4 GESTURES**
A body movement that portrays a concept or mood.

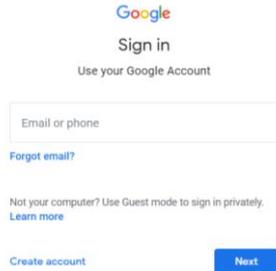
- 5 STILLNESS**
A motionless pose during the dance sequence.




Computing



Each pupil is given a school email address which they can use to contact teachers and access Google Classroom and Google Apps.



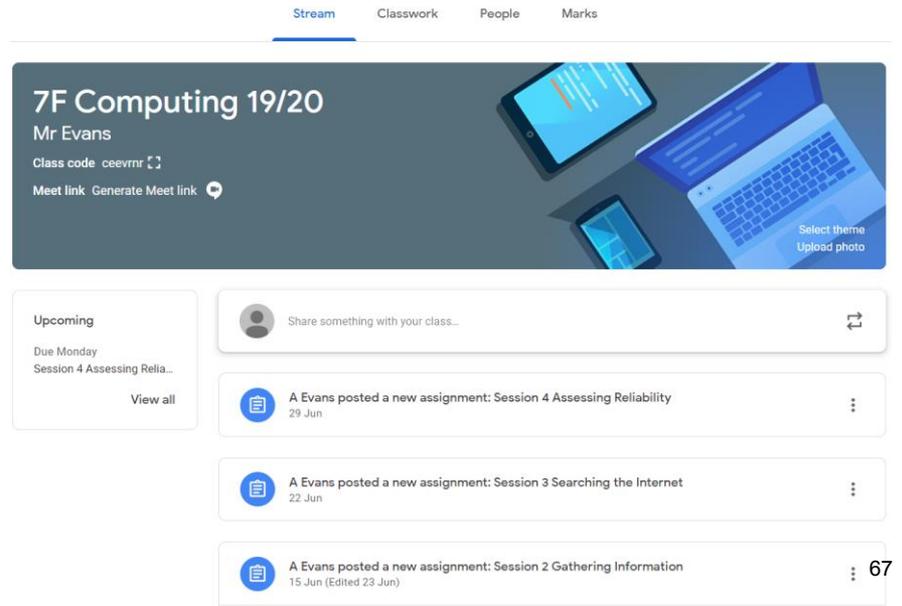
surname.firstname@hartfordhighschool.co.uk

Key terms

Term	Definition
Email	Electronic mail is a method of exchanging messages between people using electronic devices.
Password	A string of characters that allows access to a computer system or service.
Google Drive	A cloud storage platform where you can store files.
Docs	An online text editor similar to Microsoft Word.
Sheets	An online spreadsheet editor similar to Microsoft Excel.



Teachers can set work on Google Classroom for you to access. Once you have signed in to your GMAIL account you will be able to load up the classroom app – on here you will see all of the classes that your teachers have invited you to and will be able to see your outstanding work on the class “stream” or in the to do list.



Music





GENERAL MUSICIANSHIP



EVALUATING MUSICIANSHIP

60s and 70s
Beatles, Monkeys, Abba, Queen
 1960s

- Basic chord structures moving to more complex chord structures
- Simple drum patterns
- Typical band lead guitar, rhythm guitar, drums and vocals

1970s

- Synthesisers
- Distortion guitar

80s and 90s
Wham, Kylie Minogue, Madonna, Spice Girls, U2, Nirvana, Oasis

- Drum machines
- Pre-programmed loops
- Guitar anthems – iconic melody lines
- 60s characteristics with orchestral extras
- Europop – mixing a drumloop with iconic pieces of music.

00s
Greenday, Snow Patrol, Eminem, Panic! At the Disco, One Direction, Ed Sheeran

- All of the above
- Live loops
- Mainstream rap
- The use of sound effects in mainstream pop
- Experimenting with instrumentation – electronic instruments mixed with orchestral instruments

Areas you felt were successful	Areas to be improved
<p>TIMING</p> <ul style="list-style-type: none"> • Everyone was in time with each other BECAUSE • INSTRUMENT and INSTRUMENT were in time with each other <p>ACCURACY</p> <ul style="list-style-type: none"> • INSTRUMENT played the part exactly the same as it was heard on the original <p>ARRANGEMENT</p> <ul style="list-style-type: none"> • The drum came in first this helped BECAUSE 	<p>TIMING</p> <ul style="list-style-type: none"> • INSTRUMENT was out of time. The INSTRUMENT now needs to • We were all out of time. We need to <p>ACCURACY</p> <ul style="list-style-type: none"> • INSTRUMENT needs to work on accuracy of notes. To do this INSTRUMENT could <p>ARRANGEMENT</p> <ul style="list-style-type: none"> • To make it sound less like the original we need to

Develop your learning

Ask music staff about learning a musical instrument.

Join an extra curriculum club

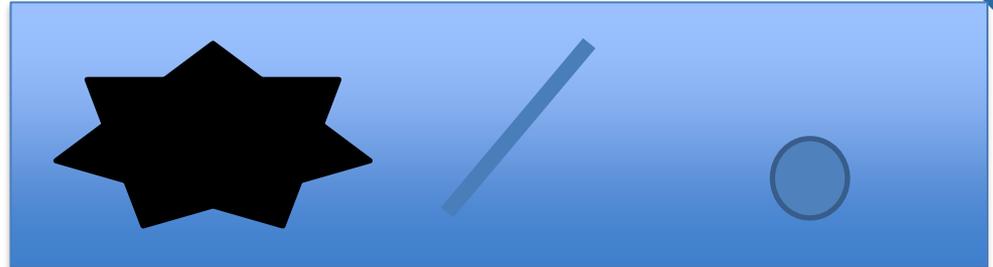
- Extra Information**
- Composing Music**
- BBC Bitesize Music
 - Audacity – free recording and editing software
 - Virtual DJ – free mixing software
 - Garage Band – on apple devices
 - Bandlab - create music
 - Noteflight – used to notate music



KEYWORDS

- Pitch - How high or low sound is
- Tempo - The speed of music
- Structure - Refers to the way a piece is built and what order sections are in
- Dynamics - The variation in loudness between notes or phrases
- Texture - How strands of music interact
- Instrumentation - The instruments used
- Timbre - The sound quality
- Graphic Score - Pictures made into sound
- Composer - A writer of music

Graphic score help



Loud dynamics
Thick texture

Low to high pitch
Thin texture

Low pitch
Thick texture

TASK: A new space film is coming out and you have been asked to work with other composers to create a backing track of a rocket ship taking off into Space. You must submit a graphic score to the directors of the film with a recording of your track

Film Score Ideas

TAKE OFF

Some ideas:
Getting ready
Countdown
Crowds
Rumbling

IN SPACE

Meteors
Shooting stars
Black hole
Aliens
Astronauts



NOTE VALUES

semibreve	minim	crotchet	quaver
4 beats	2 beats	1 beat	1/2 beat

Crotchet Rest	dotted minim	1 beat
	= 3 x crotchet	

2 joined quavers	4 semiquaver	2 semiquavers and 1 quaver
= 1 x crotchet	= 1 x crotchet	= 1 x crotchet

BRIEF: A local head teacher is in need of your help. They would like a school rhythm for lessons. The teacher will clap two bars and the pupils will respond with another two bars. Can you help?

TIME SIGNATURES

2 4	Sounds like a march	
3 4	Sounds like a waltz	
4 4	Used for most pop songs	

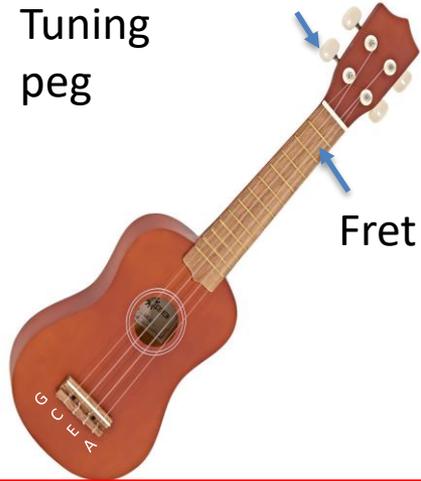
KEYWORDS

- | | |
|-------------------|--|
| Unison rhythms | Everyone playing the same rhythm |
| Polyrhythms | Everyone playing different rhythms |
| Call and response | One person plays a rhythm others respond with a rhythm |
| Time Signature | Groups music into two, three, four sometimes more |
| Bar | Separates the music into sections |

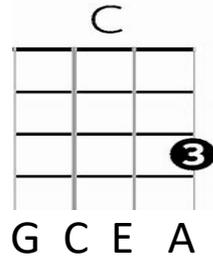
Rhythms to Rehearse



Tuning peg



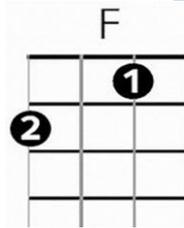
Fret



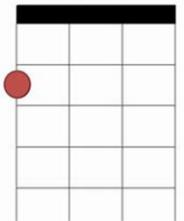
TUNING. Before playing a ukulele it must be tuned. This could be done by purchasing an app on a mobile device, purchasing a ukulele tuner or you could use YouTube.

<https://www.youtube.com/watch?v=2VOuRBjmzAM>

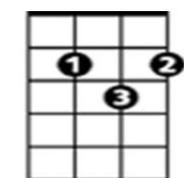
Chord diagram: this diagram is telling you to push the A string on the 3rd fret



Am



G



C C

Don't worry, about a thing

F C

Cause every little thing is going to be alright

Am --- F --- C --- C ---

Am F C C

We are searchlights, we can see in the dark

Am F C C

We are rockets, pointed up at the stars

Am F C C

We are billions of beautiful hearts

Am F C C

And you sold us down the river too far

This is the first verse of Pink's What About Us

When you see a chord on top of a syllable of a word this is when you change/play the chord. This is the chorus from Three Little Birds by Bob Marley

Food Technology





Cooking methods		Making techniques		Nutrients	
Simmering	A method of cooking in deep water just below boiling point- small bubbles	Rubbing in	A method used for making pastry/ cakes/ crumble where fat is rubbed into flour using finger tips	carbohydrates	Main source of energy for the body
Frying	Cooking method where food is cooked and browned in hot fat- amounts of fat vary.	Bridge and claw cutting technique	Arch hand to create a bridge when holding food and hold with a claw like grip	Vitamins/ minerals	Required in small amount to maintain good body health- each vitamin/ mineral does a different job
Baking	Cooking food in an oven with dry heat	Folding	Gentle mixing of ingredients usually done with a plastic spatula	fats	Secondary source of energy but required as insulation for the body
Grilling	Method of cooking under intense heat which can be from the top or bottom	Mixing	The combining of ingredients	Fibre	Vital for the body as it absorbs water and helps you go for a poo.
Boiling	Cooking in deep liquid at 100 degrees – large rapid bubbles	Forming/ shaping	Process of putting combined ingredients into a shape e.g. dough into a ball	Protein	Needed for growth and the building and repair of body cells.
Sauté	A method of cooking food by tossing it in fat	Chopping	To cut something into pieces	Dairy	Products made from milk (usually cows)- milk, yoghurt, cream and cheese.
Food hygiene/ safety		Analysing foods			
Food poisoning	Illness caused from eating contaminated foods	Flavour	The way in which food tastes		
Bacteria	Microscopic living organisms	Appearance	The way food looks		
High risk foods	Foods that provide the best conditions for the growth of bacteria	Texture	The way in which food feels like in the mouth e.g. crunchy, chewy, soft		



Good practise for washing and drying up.

- Use hot soapy water
- Use a dish cloth or washing up brush
- Rinse off bubbles
- Leave to drain
- Dry with a clean dry tea towel
- Check- make sure all food has been removed; ensure it is completely dry on top, bottom and inside.
- Ask teacher to check equipment before putting away.
- Empty bowl- rinse to remove bubbles.
- Use finders to unblock any food from plughole.
- Use a dishcloth to clean sink, bowl, area around sink and work area.
- Leave completely dry.

Bridge and claw method of cutting:



Health safety and hygiene

- Wash hands before preparing any food, after handling raw meat, after sneezing/coughing and after going to the toilet.
- Cover cuts with a blue plaster
- Tie hair up
- Remove jewellery and nail varnish before handling food.
- If you are ill do not cook
- Wear a clean apron
- Never cook or prepare food unsupervised
- Use the 4c's cleaning, cooking, chilling and cross contamination.



Eatwell guide:



5 principals for healthy eating

- Eat lots of fruit and veg
- Eat more fibre
- Eat less saturated fat
- Eat less sugar
- Eat less salt

Name	Nutrient/vitamin/mineral	Where from?	What do we need them for?
Carbohydrate	Nutrient	Pasta, rice, potatoes, cakes, cereals	Energy
Protein	Nutrient	Meat, fish, eggs, lentils, nuts	Growth, repair and maintenance
Fats	Nutrient	Meat, dairy, nuts, seeds	Secondary energy, warmth, protection of organs
Vitamin A	Vitamin	Dairy, eggs, fish, leafy veg, mango, apricots	Healthy immune system, helps us to see in dim light
Vitamin C	Vitamin	Oranges, blackcurrants, kiwi, strawberries, sprouts	Fights infection and heals wounds
Iron	Mineral	Meat, green leafy veg, beans, nuts	Healthy red blood cells



Types of vegetarians

Type of vegetarian	Meat	Fish	Dairy	Eggs
Vegan	✗	✗	✗	✗
Pescetarian	✗	✓	✓	✓
Lacto	✗	✗	✓	✗
Lacto-ovo	✗	✗	✓	✓

Vegetarian alternatives to meat

Quorn- cultured fungus

Soya- soya bean

TVP- Textured vegetable protein

Tofu-soya bean curd

