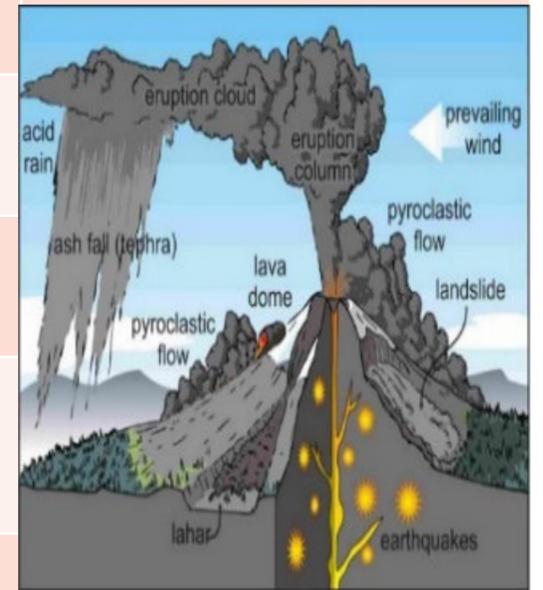


The structure of the Earth	
The Crust	Varies in thickness (5-10km) beneath the ocean. Made up of several large plates.
The Mantle	Widest layer (2900km thick). The heat and pressure means the rock is in a liquid state that is in a state of convection.
The Inner and outer Core	Hottest section (5000 degrees). Mostly made of iron and nickel and is 4x denser than the crust. Inner section is solid whereas outer layer is liquid.

Convection Currents	
The crust is divided into tectonic plates which are moving due to convection currents in the mantle.	
1	Radioactive decay of some of the elements in the core and mantle generate a lot of heat.
2	When lower parts of the mantle molten rock (Magma) heat up they become less dense and slowly rise .
3	As they move towards the top they cool down, become more dense and slowly sink .
4	These circular movements of semi-molten rock are convection currents
5	Convection currents create drag on the base of the tectonic plates and this causes them to move.

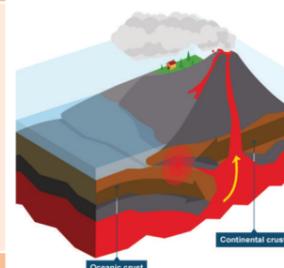
Volcanic Hazards	
Ash cloud	Small pieces of pulverised rock and glass which are thrown into the atmosphere.
Gas	Sulphur dioxide, water vapour and carbon dioxide come out of the volcano.
Lahar	A volcanic mudflow which usually runs down a valley side on the volcano.
Pyroclastic flow	A fast moving current of super-heated gas and ash (1000°C). They travel at 450mph.
Volcanic bomb	A thick (viscous) lava fragment that is ejected from the volcano.



Types of Plate Margins

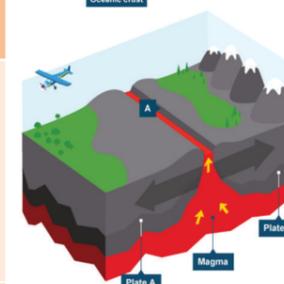
Destructive Plate Margin

When the denser plate **subducts** beneath the other, friction causes it to **melt and become molten magma**. The magma forces its way up to the surface to form a volcano. This margin is also responsible for **devastating earthquakes**.



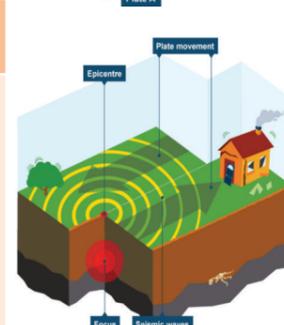
Constructive Plate Margin

Here two plates are **moving apart** causing new magma to reach the surface through the gap. Volcanoes formed along this crack cause a submarine mountain range such as those in the **Mid Atlantic Ridge**.

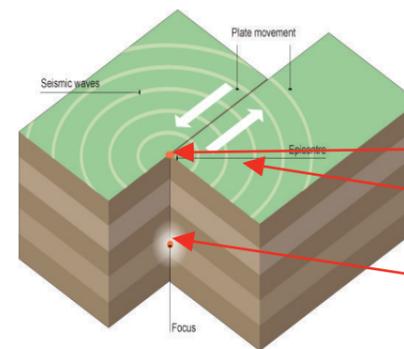


Conservative Plate Margin

A conservative plate boundary occurs where plates **slide past each other** in opposite directions, or in the same direction but at different speeds. This is responsible for earthquakes such as the ones happening along the San Andreas Fault, USA.



Year 8 Tectonic Hazards



Causes of Earthquakes

Earthquakes are caused when two plates become **locked** causing **friction** to build up. From this **stress**, the **pressure** will eventually be released, triggering the plates to move into a new position. This movement causes energy in the form of **seismic waves**, to travel from the **focus** towards the **epicentre**. As a result, the crust vibrates triggering an earthquake.

The point directly above the focus, where the seismic waves reach first, is called the **EPICENTRE**.

SEISMIC WAVES (energy waves) travel out from the focus.

The point at which pressure is released is called the **FOCUS**.

TSUNAMI



Causes of Tsunamis

Most tsunamis are caused by earthquakes at **destructive plate boundaries**. Here, an oceanic plate is **subducted** into the mantle beneath a continental plate. This movement causes **friction**, which in turn causes the plates to stick. Energy accumulates, like that of a compressed spring. When the energy exceeds the friction, the plates snap back into position. This movement **thrusts the water above** causing a wave to form. The waves can travel large distances.

LIC Earthquake – Kashmir, Pakistan 2005

Causes

Kashmir lies on a collision plate boundary where the Indian plate is moving into the Eurasian plate. The two continents push against each other forcing upwards and eventually forming mountains. This earthquake measured 7.9 on the Richter Scale.

Effects

87,000 people died
2.8 million people left homeless
Hospitals, schools and police stations were all destroyed.
Roads and communication networks were destroyed.

Management

People weren't prepared as it is an LIC and buildings were built to a poor standard.
\$6.2 billion donated by foreign governments and charities
People with injuries couldn't be treated as hospitals were destroyed.
Emergency services and charities couldn't access the mountainous area because roads were destroyed.



HIC Earthquake – Kobe, Japan 1995

Causes

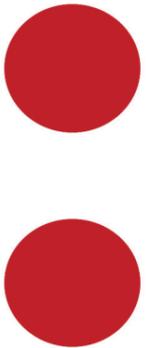
The earthquake that hit Kobe during the winter of 1995 measured 7.2 on the Richter scale. At this plate margin, the Phillipines plate is being pushed under the Eurasian plate, stresses build up and when they are released the Earth shakes. This is known as an earthquake happening along a subduction zone.

Effects

6,434 people died.
310,000 people left homeless
Fires spread across the city as broken pipes caused gas to leak out.
Kobe's harbour sank as liquefaction caused the ground to turn to sludge.
The Hanshin Expressway (double decker road) collapsed.

Management

Japan's buildings are designed to remain standing in an earthquake, so effects were limited.
Buildings built before 1960s were poorly built and collapsed.
Old buildings made from wood caught fire, once fires spread.



Year 8 - Tectonic Hazards Case Studies

LIC Tsunami – Indian Ocean Tsunami 2004



Causes

Indo-Australian plate was subducting underneath the Eurasian plate. Rocks are locked together and under a severe level of stress. Fault 20 miles below surface ruptured (9.3 earthquake on the Richter scale). Pacific plate is thrust up (as much as 40m). Whole body of water above the fracture is displaced.

Effects

250,000 people from 14 different countries died in the wave
5 million people were left homeless and became refugees.
150,000 died as a result of drinking contaminated water.

Management

People weren't prepared as it happened in LICs, no warnings were given out.
\$7 billion donated by foreign governments and charities
A tsunami warning system has been put in place for future earthquakes.
Tsunami shelters have been built along beaches.

HIC Tsunami – Japanese Tsunami 2011

Causes

The Pacific Plate subducted under the North American Plate. Rocks are locked together under a severe level of stress built up over 1100 years, generating an earthquake of magnitude 9.1 on the Richter Scale. Pacific plate is thrust upwards, displacing the sea above.

Effects

15,896 people died in the wave
340,000 people left homeless
10% of Japan's ports were destroyed
4.4 million homes left without electricity.
Fukushima Nuclear Power Plant was flooded causing radiation fallout.

Management

Japan was well prepared for the tsunami. Warning Systems sounded, people moved to high ground to flee the tsunami
Temporary accommodation was provided to homeless families.
Tsunami walls were not big enough to withstand the huge wave.

Year 8 Knowledge Organiser Section C: Nazi Germany

Key Terms / Events	
1. German Workers' Party	A Political party that would later become known as the Nazi Party. Hitler was sent to monitor its activities in 1919. Hitler joined the party in 1919.
2. Weimar Government	The name given to the government of Germany from 1919 (end of World War One) to 1933 (when Hitler and the Nazis came to power).
3. Nazi Party	National Socialist German Workers' Party. It was led by Adolf Hitler. Ruled Germany between 1933 and 1945.
4. Communist	A political ideology that the Nazis hated and were determined to defeat.
5. Chancellor	Prime Minister of Germany. Hitler became the Chancellor of Germany in January 1933.
6. Reichstag	German Parliament.
7. Enabling Act	A law that was passed in March 1933. This gave Hitler the power to pass any laws that he wanted.
8. Dictator	A ruler with total power over a country. Hitler was the Dictator of Germany from 1933-1945.
9. Gestapo	The Nazi secret police. Their job was to find people who were considered to be a threat to Nazi Germany.
10. Concentration camp	Set up by the Nazis from March 1933 onwards. They were places where opponents of the Nazis were kept as prisoners and sometimes tortured.
11. Persecution	Targeted people and treating them very badly because of their race or political beliefs.
12. Anti-Semitism	Hostility, discrimination, or hatred towards Jews.
13. Nuremberg Laws, 1935	Anti-Semitic laws passed by the Nazis that took away German citizenship from Jews.
14. Kristallnacht	November 1938. 'The Night of Broken Glass'. Jewish shop windows were smashed, synagogues were burned, 20-30,000 Jews were sent to concentration camps, and 91 Jews were murdered.
15. Ghettos	Areas of cities in which the Nazis forced Jews to live in extremely cramped and poor conditions.
16. Final Solution	The Final Solution to the Jewish Question was the Nazi plan to exterminate Jews from 1941/1942.
17. Holocaust	A genocide in which the Nazis systematically murdered around six million Jews between 1941 and 1945.
18. Genocide	A deliberate destruction (in whole or in part) of an ethnic, racial, religious, or national group.



Key People	
19. Adolf Hitler	The leader of Nazi Germany.
20. Joseph Goebbels	The man in charge of Nazi propaganda.
21. Heinrich Himmler	Leader of the SS and leading member of the Nazi Party.
22. Herschel Grynszpan	Assassinated a German diplomat in Paris in 1938. The Nazis used this to launch Kristallnacht.

23. 1919 Hitler joined the German Workers' Party.	24. 1923 The Nazis attempted and failed to take control of Germany (Munich Beer Hall Putsch).	25. 1933 – January Hitler became Chancellor of Germany.	26. 1933 – March The Enabling Act was passed. This gave Hitler the power to pass any laws he wanted.	27. 1935 Nuremberg Laws. This took German Citizenship away from Jews.	28. 1938 – November Kristallnacht – 'the Night of Broken Glass'.	29. 1939 Germany invaded Poland. Ghettos started to be set up in Poland.	30. 1941-1942 The Final Solution to the Jewish Question was agreed by the Nazis.	31. 1944/1945 Nazi Germany was losing the war. Camps in Europe were liberated by the Allies.	32. 1946 The Nuremberg Trials delivered their verdict on leading Nazis.
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Year 8 Knowledge Organiser Section D: The Civil Rights Movement in the USA in the 1950s and 1960s.



Key Terms / Events	
1. Jim Crow Laws	Laws in America which enforced racial segregation until 1965.
2. Racial segregation	The separation of people according to their race or ethnic group. The Jim Crow Laws enforced this racial segregation in the USA. For example, white only schools or separate entrances for white and black people at cinemas.
3. Plessy vs. Ferguson	This 1896 ruling allowed segregation to happen as long as the separate facilities were equal in quality ('separate but equal').
4. Ku Klux Klan (KKK)	White supremacist group. The KKK often dressed in white clothing and targeted black Americans with extreme racism and violence. By 1924, the KKK had 4.5 million members.
5. Lynching	Targeted killing of an individual by a group. Between 1919 and 1925, over 300 African Americans were murdered by lynching.
6. Brown vs. Board of Education 1954	Ruling by the Supreme Court that set segregated schools could not be equal. Therefore, segregated schools were not allowed anymore and so were ordered to become integrated.
7. Montgomery Bus Boycott, 1955-1956	A Civil Rights protest during which African-Americans refused to use bus services in Montgomery to protest against segregated seating on the buses. It took place between December 1955 and December 1956. Led to Montgomery's bus segregation laws being declared illegal. By extension, this suggested no public places should be allowed to be segregated.
8. Little Rock High School (Arkansas) 1957	The state of Arkansas had not ended segregation. The state governor was ordered to let nine African-American students attend a white high school and he refused. President Eisenhower had to send US troops to make sure that they could join the school.
9. Sit-ins 1960 onwards	Campaign to end segregation in public places. People would sit in restaurants, libraries, churches etc. and refused to move. A key example of non-violent direct action. 126 cities desegregated by the end of 1960.
10. Freedom Rides 1961	Freedom riders deliberately rode on buses in cities that were not obeying the order to desegregate buses after the Montgomery Bus Boycott. They faced extreme violence and many freedom riders were arrested.
11. 'I have a dream' speech, 1963	Extremely famous speech delivered by Martin Luther King in 1963 which called for an end to racism in America. This speech has a huge impact on public opinion in America.
12. Black Power movement	Black nationalists who believed that the peaceful Civil Rights campaigns were not effective, so they used more extreme and violent methods. For example, the Black Panthers were a political party founded in 1966 and called for all African-Americans to be armed.
13. Race riots	Widespread violence in American cities between the police and African Americans due to the poor relations between African Americans and the predominantly white police, e.g. in Watts in Los Angeles in 1965 and Detroit in 1967.

Key People	
14. Rosa Parks	Refused to give up her seat to a white person on a bus in 1955.
15. Martin Luther King	Key individual in the Civil Rights movement from 1955 until his assassination in 1968. Believed in peaceful, non-violent, protests.
16. Malcolm X	Criticised Martin Luther King's non-violent methods as he believed in a more violent approach.

17. 1954 Brown vs Board of Education ruling. Segregated schools = no longer allowed.	18. 1955-1956 Montgomery Bus Boycott.	19. 1957 Crisis at Little Rock High School.	20. 1961 Freedom Rides on inter-state buses.	21. 1963 March on Washington. Martin Luther King's 'I have a dream' speech	22. 1964 Civil Rights Act. Made it illegal to discriminate against people in housing and employment.	23. 1965 Voting Rights marches in Selma. The marches faced huge violence.	24. 1965 Voting Rights Act ended literacy tests that had discriminated against poor African Americans.	25. 1968 Martin Luther King assassinated. 2nd Civil Rights Act stopped discrimination in housing.
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Sequences

Linear Sequence

A number pattern which increases (or decreases) by the same amount each Kme.

Term to Term

8 10 12 14

+2 +2 +2

The amount by which a sequence increases or decreases by is known as the **term to term**.
+2 is the term to term

nth term

The formula to work out any number (n) in a sequence

term

1st 2nd 3rd 4th 5th 6th 7th

4, 8, 12, 16, 20, 24, 28...

Triangular Numbers

1
1

1+2
= 3

1+2+3
= 6

1+2+3+4
= 10

Key Vocabulary

Fibonacci = A series of numbers 0,1,1,2,3,5,8.

The next number is found by adding up the previous 2 numbers

Triangular Numbers = The sequence comes from a pattern of dots that form equilateral triangles

Linear Sequence = A number pattern which increases/ decreases by the same value each Kme

Geometric Sequence = A sequence in which each term increase by a constant multiplier

Quadratic = A sequence in which the first differences are not the same, formed by a quadratic rule

Find the nth term rule:

7 11 15 19

+4 +4 +4

$a = 4$ $4 + b = 7$
 $b = 3$

nth term = $4n + 3$

Geometric Sequence

2, 4, 8, 16, 32

x2 x2 x2 x2



Fibonacci



Algebra

When letters are used in place on unknown numbers . Each different letter used in an equation means it is representing a different value

Value

A letter to represent a number

Subject of the Formula

Making one letter equal to an expression

e.g. $y = 2x + 3$

Writing an Expression

A number minus 6	$n-6$	6 minus a number	$6-n$
9 less than a number	$n-9$	9 less a number	$9-n$
Subtract 10 from a number	$n-10$	Subtract 10 from a number	$10-n$
A number decreases by 5	$n-5$	5 decreased by a number	$5-n$

Definitions

Term	A single number/ variable(letter) or numbers/variables multiplied together	x or $4x$
Expression	A group of terms (no = /</>sign)	$4x+20$
Equation	Contains an = sign	$4x+20=36$
Identity	An equation that is true no matter what values are chosen	$4x+20 \equiv 4(x+5)$
Inequality	The relative size of two values. Greater than $>$ Smaller than $<$	$4x+20 > 35$



Rules of Algebra

- | | | |
|---|---|-----------------------|
| Never write a x sign for multiplying | → | 5a not 5 x a |
| Write combined letters alphabetically | → | ab not ba |
| Never write a + sign, use a fraction | → | ² not x+ 2 |
| In products*, write numbers before letters. | → | 2xy not yx2 |

Like Terms

- 1) **4g** and **4h** **NO** – letter variables are different.
- 2) **3h** and **-h** **YES** – letters the same (-h = -1h)
- 3) **5x** and **4xy** **NO** – letter variables are different.
- 4) **2x²y³** and **2x²y⁵** **NO** – y powers are different.
- 5) **5p²q³** and **-4p²q³** **YES** – letters & powers same



Collect all the terms with the same letter into one group and all the numbers into a group and simplify

Collect like terms

$$4a + 5 + 2a - 3$$

$$= 6a + 2$$

2x² & 5x
are NOT like terms, they have different powers!!

2x x x
x+x+x+x+x

Important Information

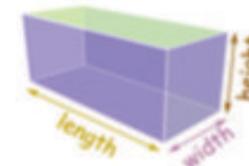
Simplifying

4ab x 5b²
Write it out in full:
4 x a x b x 5 x b x b
Multiply numbers & collect same letters & write in standard form
20ab³

10a² = 10 x a x a
5a = 5 x a
20 x a x a
5 x a
= 2a
Cancel common factors & divide numbers

Using a Formula

A fact or rule that uses mathematical symbols / letters
It will usually have:
An equals sign =



volume = length x width x height
v = l x w x h

Writing a Formula

Joe works at a car wash on Sundays.
He is paid a basic wage of £10 and a bonus of £3 for each car washed.

w = wage
n = number of cars washed
10 = basic wage
w = 3n+10



Expanding Single Brackets

Expanding single brackets

To expand a single bracket, multiply whatever is inside the bracket by the number outside.

Here is $x + 2$:

x	1
x	1
x	1

$3(x + 2)$ means 3 lots of $x + 2$ and would look like this:

x	1
x	1
x	1

Altogether this is $3x + 6$.

Algebraically, we would write:
 $3(x + 2) = 3x + 6$.

We have multiplied each term inside the bracket by 3.

$$4(x + 3) = 4x + 12$$

$4 \times x = 4x$
 $4 \times 3 = 12$

$$5(2x + 4) = 10x + 20$$

$5 \times 2x = 10x$
 $5 \times 4 = 20$

Watch out!
Be really careful with negatives!

$$3(x - 3) = 3x - 9$$

Remember:
 $-x - = +$

$$-3(x - 4) = -3x + 12$$

Expanding Brackets

$$4(x + 3) = 4x + 12$$

$4 \times x = 4x$
 $4 \times 3 = 12$

$$5(2x + 4) = 10x + 20$$

$5 \times 2x = 10x$
 $5 \times 4 = 20$

Watch out!

Be really careful with negatives!

$$3(x - 3) = 3x - 9$$

Remember:
 $-x - = +$

$$-3(x - 4) = -3x + 12$$

Expanding with Indices

$$x(2x - 5) - 6(x - 2) =$$

$$x(2x - 5) - 6(x - 2)$$

$$2x^2 - 5x - 6x + 12 =$$

$$2x^2 - 11x + 12$$

Use **BIDMAS**
with algebra
and indices

BIDMAS

$() X^Y \div \times \pm$

Algebra's Golden Rule

What you do
to one side of
an equation...

$$\begin{array}{l} + - \sqrt{x} \\ \times \div x^2 \end{array}$$

You must do to
the other side

$$\begin{array}{l} + - \sqrt{x} \\ \times \div x^2 \end{array}$$

Algebraic Fractions

Follow the same rules
as ordinary fractions

$$\frac{x}{2} + \frac{y}{3} = \frac{(x)(3) + (y)(2)}{(2)(3)}$$

$$= \frac{3x + 2y}{6}$$

Solving equations with unknowns on both sides

Solve $4x + 3 = 2x + 9$

Remove $2x$ by
subtracting it from
both sides.

$$4x + 3 = 2x + 9$$

$$- 2x$$

$$2x + 3 = 9$$

$$- 3$$

$$2x = 6$$

$$+ 2$$

$$x = 3$$

To avoid getting negative x terms,
always remove the smaller number
of x 's from both sides

Use inverse operations to solve
linear equations

Solving Linear Equations

Balancing method

$$8a - 5 = 11$$

$$+5 \quad +5$$

$$8a = 16$$

$$+8 \quad +8$$

$$a = 2$$

$$\frac{x}{12} - 5 = 4$$

$$+5 \quad +5$$

$$\frac{x}{12} = 9$$

$$\times 12 \quad \times 12$$

$$x = 108$$

Function machine method

$$8a - 5 = 11$$

$$a \rightarrow \times 8 \rightarrow -5 \rightarrow 11$$

$$2 \leftarrow \div 8 \leftarrow +5 \leftarrow 11$$

$$a = 2$$

$$\frac{x}{12} - 5 = 4$$

$$x \rightarrow \div 12 \rightarrow -5 \rightarrow 4$$

$$108 \leftarrow \times 12 \leftarrow +5 \leftarrow 4$$

$$x = 108$$

+	→	-	Inverse Operations
-	→	+	
\times	→	\div	
\div	→	\times	
x^2	↔	\sqrt{x}	

$$x - 120 = 80$$

$$+120 \quad +120$$

$$x = 200 \checkmark$$

$$y + 14 = 20$$

$$-14 \quad -14$$

$$y = 6 \checkmark$$



Factorising

Factorising (put in bracket)

Find HCF of both numbers
and letters

$$y^2 + 3y =$$
$$y \times y + 3 \times y =$$
$$y(y+3)$$

FACTORISING
Opposite of
expanding
brackets

$$\text{Factorising}$$
$$= 8n^2 + 20n$$
$$4n(2n + 5)$$

Find the common factors
and common variable.
They go outside the
bracket, the rest goes
inside the bracket

$$x^2 + 7x + 12$$
$$(x + 3)(x + 4)$$

Find 2 numbers when
added/subtracted give the term
(number + letter) &
that multiply to give the constant
(number on its own)

Factorising into Double Brackets

$$3 + 4 = 7$$
$$3 \times 4 = 12$$

Indices

Positive Indices x

$$2 \times 2 \times 2 \times 2 \times 2 \times 2 = 2^6$$
$$= 64$$

2 is the base number
6 is the index number /
the power / the exponent
**(used when
multiplying)**

Negative Indices ÷

5⁻³
A negative index tells you
how many time to ÷ the
number by
1 ÷ 5 ÷ 5 ÷ 5 = 0.008

5⁻³ could also be
calculated like:
1 ÷ (5 × 5 × 5) = 1/5³
= 1/125 = 0.008

Key Terminology

Variable = A symbol for a number not yet
known.

Constant = A number on its own

Coefficient = A number that you multiply a
variable by.



HCF/LCM

Lowest Common Multiple (LCM)

The smallest number that is common multiple of two or more numbers

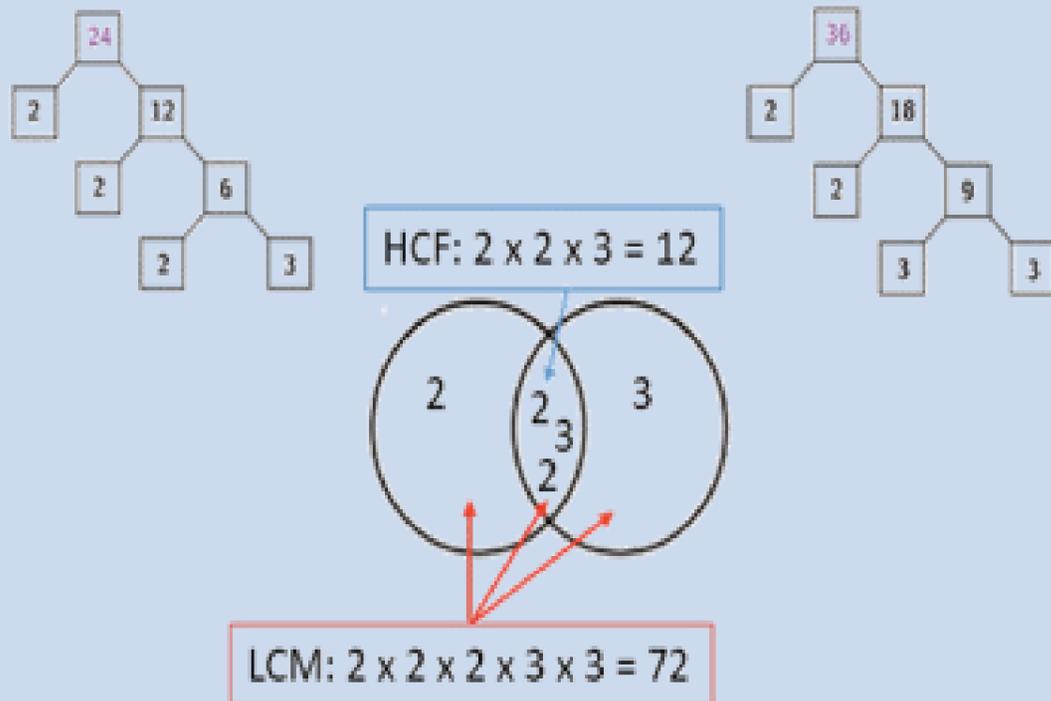
Highest Common Factor (HCF)

The largest number that divides evenly into both numbers

In other words the HCF is the largest of all the common factors

HCF and LCM

Find the HCF and LCM of 24 and 36



Prime Factor Decomposition

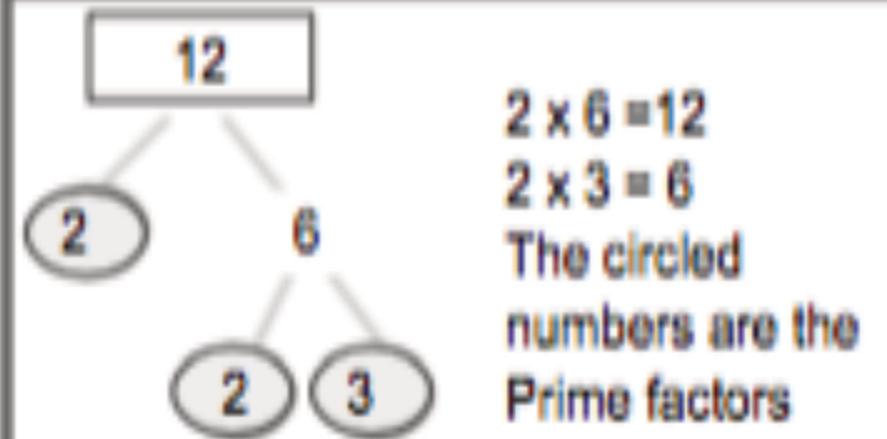
Prime Number

A prime number is a whole number greater than 1 whose only factors are 1 and itself. A

factor is a whole number that can be divided evenly into another number. The first

few prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29.

Prime Factorisation





Index Rules

The first rule: $a^n \times a^m = a^{m+n}$

The second rule: $(a^n)^m = a^{mn}$

The third rule: $a^m \div a^n = a^{m-n}$

The fourth rule: $a^0 = 1$

The fifth rule: $a^{-1} = \frac{1}{a}$ $a^{-m} = \frac{1}{a^m}$

The sixth rule: $a^{\frac{1}{2}} = \sqrt{a}$ $a^{\frac{1}{m}} = \sqrt[m]{a}$

$$a^{\frac{n}{m}} = (a^{\frac{1}{m}})^n = (\sqrt[m]{a})^n$$

- $\sqrt{1} = 1$ since $1^2 = 1$
- $\sqrt{4} = 2$ since $2^2 = 4$
- $\sqrt{9} = 3$ since $3^2 = 9$
- $\sqrt{16} = 4$ since $4^2 = 16$
- $\sqrt{25} = 5$ since $5^2 = 25$
- $\sqrt{36} = 6$ since $6^2 = 36$
- $\sqrt{49} = 7$ since $7^2 = 49$
- $\sqrt{64} = 8$ since $8^2 = 64$
- $\sqrt{81} = 9$ since $9^2 = 81$
- $\sqrt{100} = 10$ since $10^2 = 100$

What does 4^2 mean?

4^2 means 4×4

$2^1 = 2$	$2^9 = 512$
$2^2 = 4$	$2^{10} = 1024$
$2^3 = 8$	$2^{11} = 2048$
$2^4 = 16$	$2^{12} = 4096$
$2^5 = 32$	$2^{13} = 8192$
$2^6 = 64$	$2^{14} = 16384$
$2^7 = 128$	$2^{15} = 32768$
$2^8 = 256$	$2^{16} = 65536$

Indices is the mathematical term for 'power'
Indices is the plural term for 'index'



Multiplying Indices

(ADD THE INDICES)

$$\begin{aligned} 8^3 \times 8^4 \\ &= 8 \times 8 \times 8 \times 8 \times 8 \times 8 \times 8 \\ &= 8^7 \end{aligned}$$

Dividing Indices

(Subtract the Indices)

$$\begin{aligned} 2^5 \div 2^2 \\ \underline{2 \times 2 \times 2 \times 2 \times 2} \end{aligned}$$

$$\begin{aligned} 2 \times 2 \\ &= 2^3 \end{aligned}$$

Indices in Brackets

(Multiply the indices)

$$\begin{aligned} (3^5)^3 \\ &= 3^5 \times 3^5 \times 3^5 \\ &= 3^{15} \end{aligned}$$

Shakespeare's biography- Week 2

William Shakespeare (1564-1616).
English poet and playwright.



Shakespeare is widely considered to be the greatest writer in the English language. He wrote 38 plays and 154 sonnets. His early plays were mainly comedies (e.g. *Much Ado about Nothing*, *A Midsummer's Night Dream*) and histories (e.g. *Henry V*). By the early Seventeenth Century, Shakespeare had started to write plays in the genre of tragedy. These plays, such as *Hamlet*, *Othello* and *King Lear*, are often based on some fatal flaw in the lead character and provide insights into the darker parts of human nature.

Supernatural context- Week 4

In Shakespeare's England, people believes witches were women controlled by the Devil. Witches sometimes had a familiar - a pet, or a toad, or a bird - which was supposed to be a demon advisor. To cause 'mischief' when they didn't get what they want, witches could shapeshift (change into something else), control the weather and set curses on people. This is known as 'mischief following anger'. A Shakespearean audience would be very afraid of Macbeth's witches due to their belief in the supernatural.

Key terms- Week 1

Hero- a person who is admired for their courage and outstanding achievements.
Villain- a character whose evil actions or motives.
Fatal flaw- the secret weakness of character that brings about a **tragic** hero's downfall.
Anti-hero- a central character in a story, film, or drama who lacks conventional heroic attributes.
Protagonist- the leading character.
Antagonist- a person who actively opposes the protagonist.
Ambitious- having or showing a strong desire and determination to succeed.
Formal- professional language.
Informal- language suitable to everyday language and conversation.
Prophecy- a message that is claimed by a prophet to have been communicated to them by a god.

Character descriptions- Week 3

Henry V
One of England's most popular kings, **famed for** his victory of the French at the 1415 battle of Agincourt.

Macbeth
A brave Scottish general whose ambition proves to be his fatal flaw.

The Witches
A trio of supernatural beings, who bring out the worst in Macbeth due to their ability to foresee the future.

Richard III
He served as king of England for only two years, but his reign was one of the most historic and turbulent due to the many murders linked to him.

Lady Macbeth
Macbeth's wife who manipulates and encourages him to ensure the witches prophecy becomes true.

Questions- Week 3

What qualities does a successful leader need?

Why can ambition be a bad thing?

In your opinion, would seeing the future be a good or bad thing?

What qualities would the King of England need to have?

What is the difference between manipulating and encouraging?

Assessment quotes- Week 4

"And like a rat without a tail, I'll do, I'll do and I'll do."

"I'll give thee a wind".

"Here I have a pilot's thumb".

"The weird sisters, hand in hand. Posters of the sea and land."

"Peace! The charm's wound up."

Sentence starters- Explaining why a character is a hero/villain- Week 6.

Arguably, the character of _____ is a hero/villain because of:

- the way they speak
- the way they treat others
- the fact they have a fatal flaw

Persuasive techniques- Week 5

Alliteration- using words that begin with the same letter in a sentence.

Fact- something that is certain.

Opinion- a belief.

Rhetorical question- asking a question to make a reader think of something.

Repetition- repeating a key word or phrase.

Emotive Language- words designed to make the reader feel emotion.

Statistics- using numbers to convince the reader your argument is factual.

Triplets- using three words or phrases.

Flattery- using praise to persuade.

Counter-argument- anticipating the opposite to your argument and proving you are correct.

Hyperbole- exaggerating for impact.



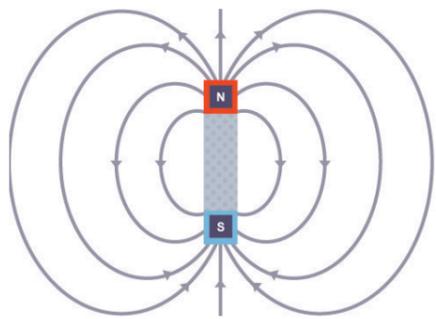
1 | FORCE FIELDS

A magnet creates a **magnetic field** around it.

- You cannot see a magnetic field, but you can observe its effects. A force is exerted on a magnetic material brought into a magnetic field.
- The force is a **non-contact force** because the magnet and the material do not have to touch each other.

Drawing **magnetic field diagrams**, note that:

- each field line has an arrowhead on it
- the field lines come out of the north pole and go into the south pole
- the field lines are more concentrated at the poles
- The magnetic field is strongest at the poles, where the field lines are most concentrated.

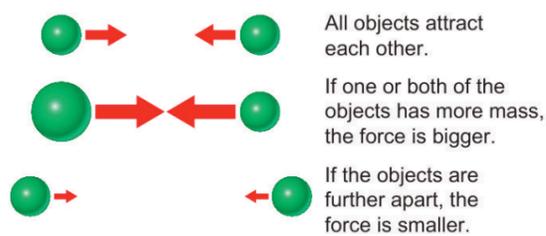


Gravitational fields

Any object that has mass has a gravitational field around it.

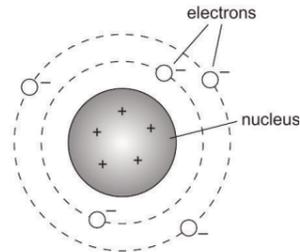
- When two objects are in each other's Gravitational field they attract each other.
- The strength on earth is 10 N/Kg. We call this force the weight of the object

$$\text{Weight (N)} = \text{mass (kg)} \times g \text{ (N/Kg)}$$



2 | STATIC ELECTRICITY

- Atoms consist of a central nucleus with small particles called electrons moving around it
- Each electron has a negative charge



- When two objects are rubbed together, **electrons** are transferred from one object to the other.
- One object becomes positive and the other negative.
- A non-contact force exists between charged objects.
- This only works for electrically **insulated** objects and not with materials like

Electric fields

- The space around a charged object has an effect is an electric field.
- The field is strongest nearest to the object.

Attract and repel

Two charged objects will:

- repel** each other if they have like charges (they are both positive or both negative)
- attract** each other if they have opposite charges (one is positive and the other is negative)

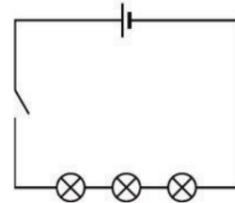
This is often shown using plastic rods and a duster:

- one of the rods is hung from a clamp stand using a thin thread
- both rods are rubbed with a duster
- the free rod is held close to the end of the hanging rod, and the effect observed

3 | CURRENT ELECTRICITY

- An **electric current** is a flow of electrons
- for an electric current to flow we need:
 - something to transfer energy to the electrons, such as a battery
 - a complete path for the electrons to flow through (an **electric circuit**)

Series circuits

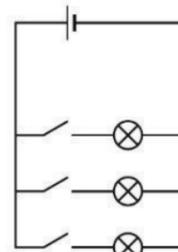


The current is the same everywhere in the circuit.

All the bulbs go off when the switch is opened.

If you add more bulbs in series, the current in the circuit is reduced and the bulbs are dimmer.

Parallel circuits



The current through the cell splits up when it comes to a junction.

Each bulb can be controlled individually.

If you add more bulbs in parallel, the bulbs all stay at the original brightness. The current through each bulb stays the same.

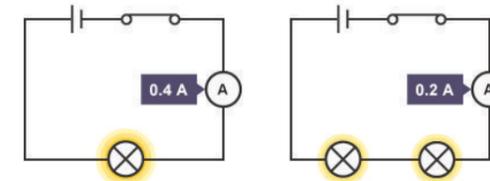
4 | RESISTANCE

The wires and the other components in a circuit reduces the flow of charge through them. This is called resistance.

The unit of **resistance** is the **ohm**, and it has the symbol Ω

Factors affecting resistance

- The resistance increases when you add more components in series.
- For example, the resistance of two lamps is greater than the resistance of one lamp, so less current will flow through them.



- Longer wires have higher resistance than shorter wires
- Thin wires have higher resistance than thick wires

Calculating resistance

- To find the resistance of a component, you need to measure:
 - the potential difference across it
 - the current flowing through it

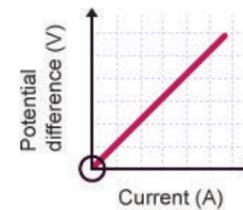
To calculate resistance:

$$\text{resistance} = \text{potential difference} \div \text{current}$$

For example, 3 A flows through a 240 V lamp. What is the resistance of the lamp?

$$\text{resistance} = 240 \div 3 = 80 \Omega$$

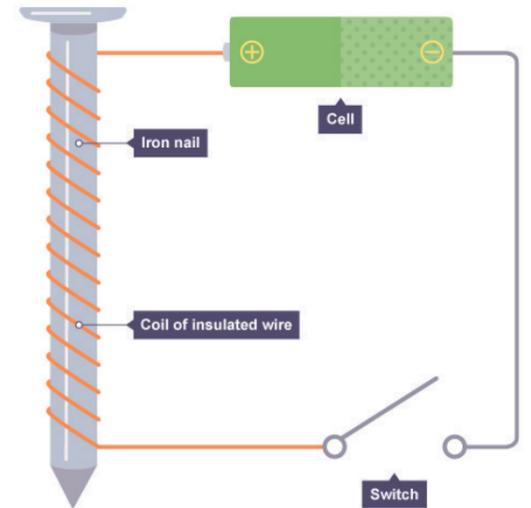
If you plot a graph of current against potential difference for a wire, you get a straight line



- The gradient of the line is equal to the resistance of the wire.

5 | ELECTRO-MAGNETS

- When an electric current flows in a wire, it creates a magnetic field around the wire.
- This effect can be used to make an **electromagnet**.



You can make an electromagnet stronger by doing these things:

- wrapping the coil around a piece of iron (such as an iron nail)
- adding more turns to the coil
- increasing the current flowing through the coil
- Advantages of Electromagnets are: they can be turned on and off
- the strength of can be varied

Force Fields Knowledge Organiser



1 | REACTIONS IN PLANTS

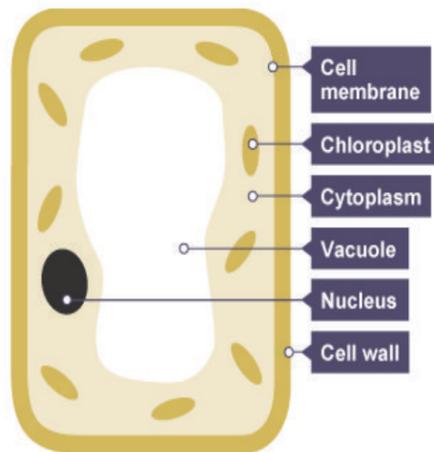
Animals need to eat food to get their energy. But green plants and algae do not. Instead they make their own food in a process called **photosynthesis**.

These are the things that plants need for photosynthesis: carbon dioxide water light (a source of energy)

These are the things that plants make by photosynthesis: glucose oxygen

Here is the word equation for photosynthesis: **carbon dioxide + water → glucose + oxygen**

Photosynthesis takes place inside plant cells in small objects called **chloroplasts**. Chloroplasts contain a green substance called **chlorophyll**. This absorbs the light energy needed to make photosynthesis happen.



Aerobic respiration

The chemical energy stored in the glucose is **glucose + oxygen → carbon dioxide + water** released by **aerobic respiration**:

Photosynthesis only happens when there is light but respiration happens all the time. During the day a plant produces more oxygen from photosynthesis than it needs for respiration and so oxygen is given off. Glucose is carried to all parts of a plant in the form of sugars dissolved in water by **Phloem vessels**

2 | PLANT ADAPTATIONS

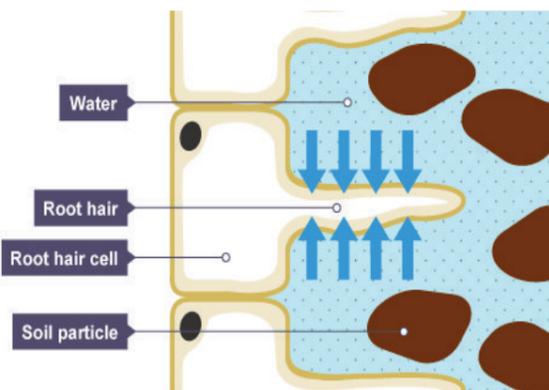
- The leaf is a plant organ **adapted** to carry out photosynthesis.

Adaption	Function
Thin	Provides a short distance for carbon dioxide to move by diffusion into the leaf
chlorophyll	Absorbs light
Stomata	Allows carbon dioxide to move by diffusion into the leaf
Guard cells	To open and close the stomata depending on the condition
xylem and phloem	To transport water (xylem) and food (phloem)

- A leaf usually has a large surface area, so that it can absorb a lot of light. Its top surface is protected from water loss, disease and weather damage by a waxy layer.
- The upper part of the leaf is where the light falls, and it contains a type of cell called a **palisade cell**. This is adapted to absorb a lot of light. It has lots of chloroplasts and is shaped like a tall

Water

- The water needed for photosynthesis is absorbed through the roots and transported through tubes to the leaf.



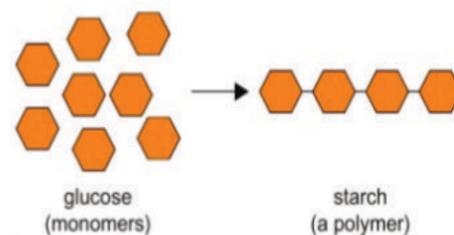
3 | PLANT PRODUCTS

Lipids

- Lipids** are **fats** and **oils**.
- The cuticle of a plant leaf contains lipids to make it waterproof
- Fats and oils are often found in plant seeds where they are an energy store

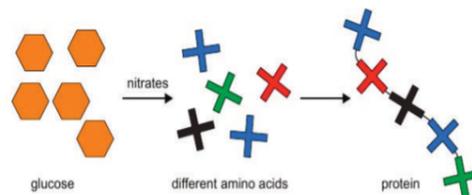
Carbohydrates

- The basic units of carbohydrates are simple sugar molecules, for example glucose, **Complex carbohydrates** (also known as **starch**)
- These are formed of long chains of sugars (monomers) joined together to make a polymer.



Proteins

- Proteins** are composed of chains monomers of amino acids. A typical protein is about 400 **amino acids** long. As there are 20 different types of naturally occurring amino acids, many different proteins can be made.



- Proteins are used to produce enzymes for photosynthesis and in seeds to supply amino acids
- To make amino acids plants need a good supply of **nitrate** salts

4 | GROWING CROPS

Fertilisers

- Farmers use **fertilisers** to supply potassium, phosphate and nitrates to plants
- Manure (animal waste) is a natural fertiliser.
- Microorganisms called **decomposers** break it down to release minerals

Pesticides

- Pesticides** kill pests (organisms that damage crops)
- Insecticides** kill insect pests
- Fungicides** kill fungi that cause plant disease
- Herbicides** (weed killers) kill weeds which compete with crop plants
- Modern herbicides are **selective**, they kill broad leaf plants not narrow leaf plants

Varieties

- A **variety** is a group of plants that have been bred to have certain characteristics (disease resistance, yield, taste)
- Different varieties are sometimes bred with others to produce offspring that have the characteristics. This is called **cross-breeding**.
- Selective breeding** is a process when only plants with the desired characteristics are used to breed, in the hope that these characteristics will be passed to the next generation
- This process is repeated over many generations until a new variety is produced with the feature required.

5 | FARMING PROBLEMS

Fertilisers

- However too much fertiliser can pollute water supplies, causing **eutrophication**.
- The extra mineral ions cause algae to overgrow, blocking sunlight and killing other plants. As a result, there is not enough oxygen dissolved in the water for aquatic organisms to survive.

Pesticides

- Pesticides are effective in controlling pests. However, they are expensive and can cause environmental damage. The pests may become resistant to them, and they may also kill useful plants and animals.
- Pesticides can have adverse effects on the environment if they are not **biodegradable** as they can accumulate in the bodies of organisms over time.
- Animals tend to eat lots of organisms from the level below in food chains, the concentration of pesticide in the bodies of organisms increases at higher levels of food chains.
- This can result in the **toxicity** of the pollutant reaching fatal levels in the organisms at the top of the food chain. This build-up of toxic substances in living organisms is known as **bioaccumulation**

On a farm Knowledge Organiser



 Free trade disadvantages poor countries

UNFAIR TRADE

What are the Causes of Poverty?

NATURAL DISASTERS Ruins roads, power & crops, plus they take lives

DISEASE Lack of healthcare leads to more deaths from disease

DEBT LEDCs borrow money, but get stuck in debt they can't pay

costs money & lives as well as destroying infrastructure

WAR






Why do Catholics Promote Community Cohesion?

 Parable of the Good Samaritan: Love Your neighbour regardless of race or nationality. Christians should ignore racial or cultural barriers

The Vision of St Peter: "I now realise God does not show favouritism but accepts from every nation those who do right"

 Common Humanity: All humans are made in the image of God and deserve dignity. "The equality of man rests on their dignity as persons"

 Every form of discrimination on the grounds of sex, race, colour, language, or religion must be eradicated as incompatible with God's design

 (CCC 1935)

why does **CAFOD** do what it does?

 Jesus taught "love Your Neighbour" and "feed the hungry, clothe the naked" (Parable of Sheep & Goats)

Church Teachings – show their "Faith which becomes active through LOVE" (Deus caritas Est)

 Stewardship – The Bible teaches that humans are responsible for looking after creation

 Social Justice – if we want world peace then we must have JUSTICE, everyone treated fairly



How do Catholics Promote Community Cohesion?

as an **INDIVIDUAL**  Being welcoming, open and tolerant of people from other races, languages and cultures. Challenging racism and discrimination in their daily lives

in a Local **GROUP**  Taking part in local projects that build community and social cohesion. This could be an inter-faith group to promote cohesion among different religions. The Street Pastors aim to look out for vulnerable people.

national MOVEMENT  The Catholic Education Service promotes teaching of other religions and community cohesion in schools. Churches Together in Britain & Ireland is an example of ecumenism; different denominations working together.

**Praactise
and learn
the words
for the
drinks.**



Una cerveza
Beer



Un chocolate caliente
Hot chocolate



Una naranjada
Fizzy orange



Un batido
Milk shake



Un vino tinto
Red wine



Un zumo de
naranja
Orange juice



Un café con leche
Coffee with milk



Un café
Coffee



Un té con limón
Tea with lemon



Leche
Milk



Un vino blanco
A white wine



Un té con limón
Tea with lemon



Leche
Milk



Una coca cola
Coke



Agua mineral
Mineral water



Un té con leche
Tea with milk



Una limonada
Fizzy lemon



Un vino rosado
Rosé wine



Un té
Tea

**Practise and
learn the
food
vocabulary.**



Patatas bravas –
spicy potatoes



Calamares - squid



Chorizo –
spicy sausage



Jamón – Spanish ham



Empanadas - pasties



Gambas - prawns



Aceitunas - olives



Paella – fish/rice



Tortilla – Spanish
omelette



Queso - cheese



Caracoles - snails



Alioli – garlic
mayonnaise

There are different verbs in Spanish for talking about different meals.

desayunar *to eat breakfast*

Desayuno cereales. *I eat cereals for breakfast.*

comer *to eat lunch*

Como pizza. *I eat pizza for lunch.*

merendar *to eat tea*

Meriendo galletas. *I eat biscuits for tea.*

cenar *to eat dinner*

Ceno pollo. *I eat chicken for dinner.*

Look at the questions and answers.

Use them to help you to answer the questions for yourself.

1	¿A qué hora desayunas?	Desayuno a <u>las siete</u> o a las ...
2	¿Qué desayunas?	A veces desayuno <u>cereales</u> . También desayuno ...
3	¿A qué hora comes?	Como a <u>las dos</u> o a las ...
4	¿Qué comes?	Como <u>pollo</u> . Nunca como ...
5	¿A qué hora meriendas?	Meriendo a <u>las cinco</u> .
6	¿Qué meriendas?	De vez en cuando meriendo <u>galletas</u> .
7	¿A qué hora cenas?	Normalmente ceno a <u>las nueve</u> .
8	¿Qué cenas?	Ceno <u>pescado</u> . Nunca ceno ...

* ¿A qué hora? = At what time?

Computer Science

Features of a good website	
House Style	A set of rules which state how all of the formatting in a website to the keep the style consistent across all pages and documents.
Layout	The arrangement of text, images and other objects on a webpage.
Colour Scheme	The choice of colours used in design for a range of content across a website.
Content	The information shown on a webpage (for example, text, applications, images, audio and video files).
Navigation	The process of navigating a network of information resources in the World Wide Web, using hyperlinks.
Load times	The time it takes to download and display the entire content of a web page in the browser window (measured in seconds).
Functionality	The interactive parts of the site that allow the user to respond in some way.
Optimisation	Making your webpages load faster by ensuring that file sizes of any content are not too large.
Concise	A website is not overloaded with unnecessary content or features.

Keywords	
World Wide Web (WWW)	Collection of webpages connected together by hyperlinks, using the Internet .
Internet	A global network of computers all connected together.
Webpages	A hypertext document connect to the World Wide Web.
Website	A collection of webpages with information on a particular subject.
Host	The company which stores the files associated with a single website.
Web Browser	The software which displays a webpage or website on a computer.
Uniform Resource Locator	URL - An address that identifies a particular file or webpage on the Internet.
HTML	Hyper Text Markup Language – defines the content of a webpage.
Multimedia	Uses a combination of different types of media e.g. text, audio, images.
Hyperlink	A link from a hypertext document to another location, activated by clicking on a highlighted word or image.

URL Components	
http://www.allsaintschs.org.uk/computerscience.php	
http://	The protocol used to send and receive the webpage
www.	Means connect to the World Wide Web
allsaintschs	Domain Name
.org.uk	Subdomain
computerscience.php	Path and file name of the specific page requested



Year 8 – Design and Technology

Knowledge Organiser

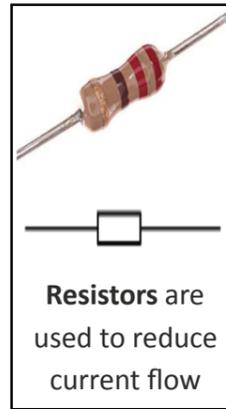
Key Words

Understand and be able to spell the words below.

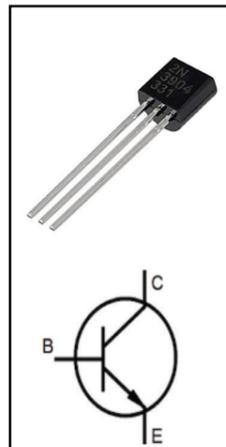
Thermoplastic
 Thermosetting Plastics
 Polymer
 Finite
 Sustainable
 Biodegradable
 3D Printing
 Safety
 Computer Numerically Controlled (CNC)
 Computer Aided Design (CAD)
 Computer Aided Manufacture (CAM)
 Sketch
 Isometric
 Engineering Drawing
 Render
 Dimension
 Specification
 Design
 Revolve
 Extrude
 Assemble
 Deform
 Chamfer
 Accuracy
 Modify
 Evaluate



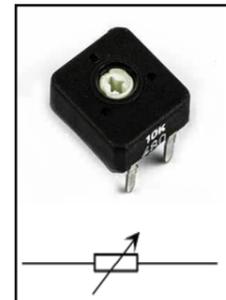
Remember the Safety Rules: Tie back long hair to prevent entanglement. Wear an apron to protect your clothing.
 Roll up long sleeves to prevent entanglement.
 Stack Chairs to prevent tripping. Wear Goggles on Machines to protect your eyes.
 One at a time on machines.



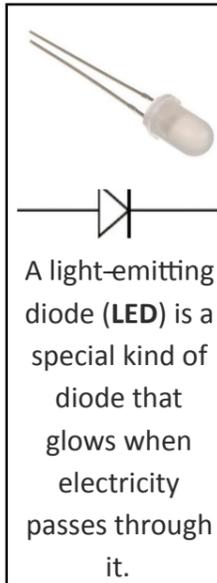
Resistors are used to reduce current flow



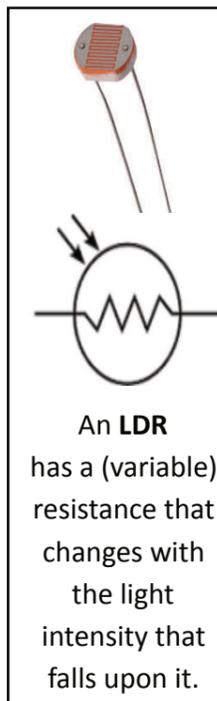
A Transistor works either as an amplifier or a switch



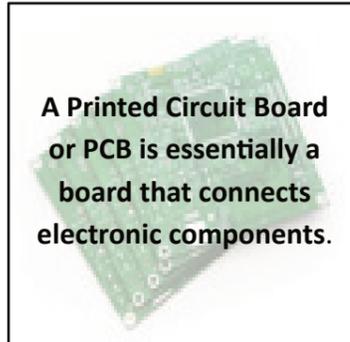
A variable resistor is able to have its electrical resistance adjusted.



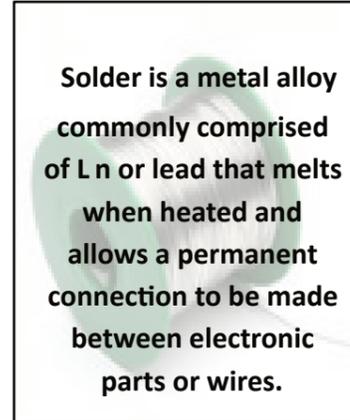
A light-emitting diode (LED) is a special kind of diode that glows when electricity passes through it.



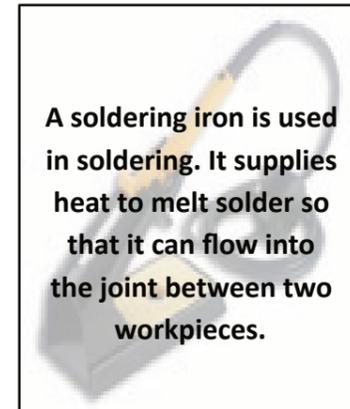
An LDR has a (variable) resistance that changes with the light intensity that falls upon it.



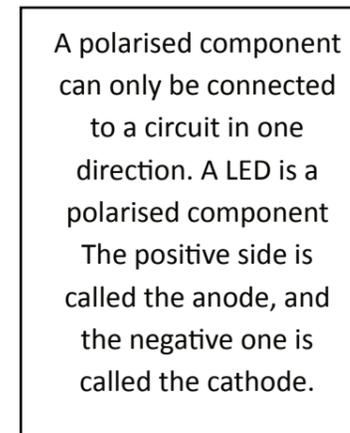
A Printed Circuit Board or PCB is essentially a board that connects electronic components.



Solder is a metal alloy commonly comprised of Sn or lead that melts when heated and allows a permanent connection to be made between electronic parts or wires.



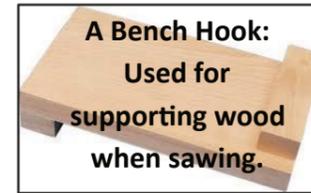
A soldering iron is used in soldering. It supplies heat to melt solder so that it can flow into the joint between two workpieces.



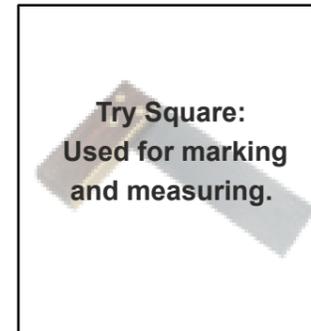
A polarised component can only be connected to a circuit in one direction. A LED is a polarised component. The positive side is called the anode, and the negative one is called the cathode.



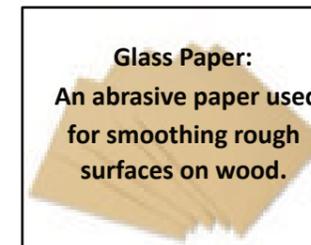
A Tennon saw: Used for making straight cuts.



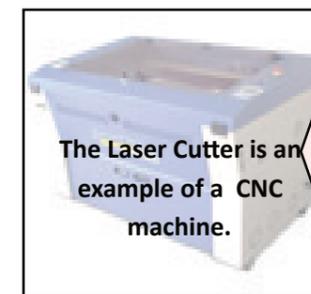
A Bench Hook: Used for supporting wood when sawing.



Try Square: Used for marking and measuring.



Glass Paper: An abrasive paper used for smoothing rough surfaces on wood.



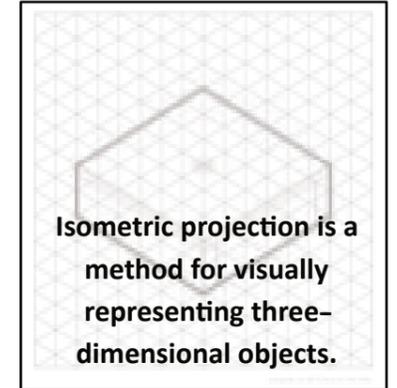
The Laser Cutter is an example of a CNC machine.



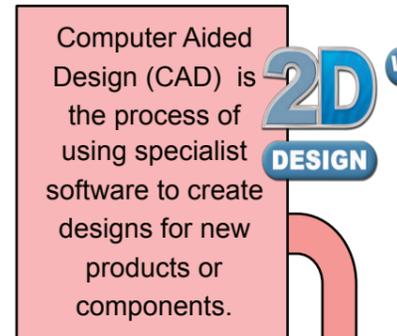
Pillar Drill: Used for drilling holes in various materials.



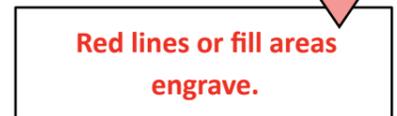
Band Facer: Used for sanding wood.



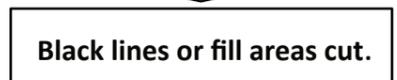
Isometric projection is a method for visually representing three-dimensional objects.



Computer Aided Design (CAD) is the process of using specialist software to create designs for new products or components.



Red lines or fill areas engrave.



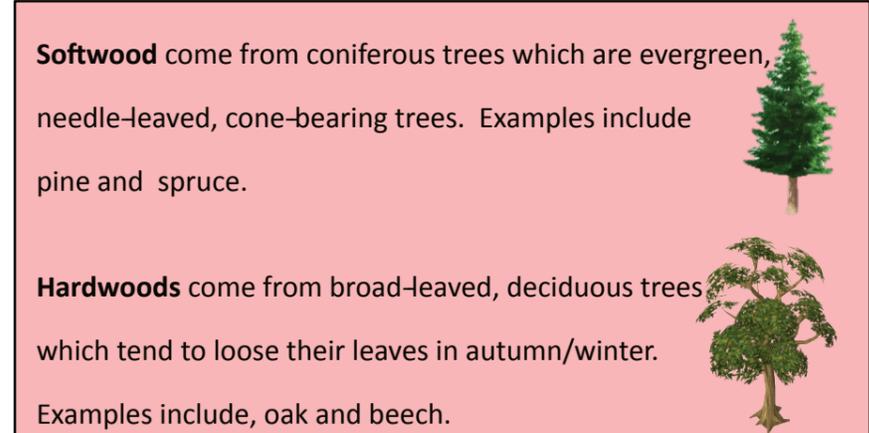
Black lines or fill areas cut.



Computer Aided Manufacture (CAM) uses saved CAD files to make new products or components as prototypes through the use of Computer Numerically Control (CNC) machinery.



Finish: Complete the manufacture of a product by giving it an attractive or protective surface appearance.



Softwood come from coniferous trees which are evergreen, needle-leaved, cone-bearing trees. Examples include pine and spruce.

Hardwoods come from broad-leaved, deciduous trees which tend to lose their leaves in autumn/winter. Examples include, oak and beech.

Year 8 – Design and Technology - CAD

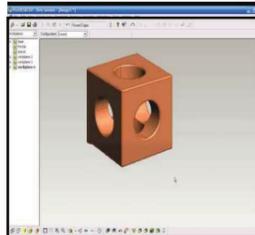
Knowledge Organiser

A **design specification** is a document that details the specific requirements of the product to ensure that it is suitable/fit for purpose.

Key Words

Understand and be able to spell the words below:

Thermoplastic
 Thermosetting Plastics
 Polymer
 Finite
 Sustainable
 Biodegradable
 3D Printing
 Safety
 Computer Numerically Controlled (CNC)
 Computer Aided Design (CAD)
 Computer Aided Manufacture (CAM)
 Sketch
 Isometric
 Engineering Drawing
 Render
 Dimension
 Specification
 Design
 Revolve
 Extrude
 Assemble
 Deform
 Chamfer
 Accuracy
 Modify
 Evaluate



Computer Aided Design (CAD) is the process of using specialist software to create designs for new products or components.



Computer Aided Manufacture (CAM) uses saved CAD files to make new products or components as prototypes through the use of Computer Numerically Control (CNC) machinery.

3D Printing

The action or process of making a physical object from a three-dimensional digital model, by laying down many thin layers of a material in succession.

3D printing is used in manufacturing, medicine, architecture, art and design.

Understand and be able to explain the advantages of disadvantages of using CAD/CAM.

CAD Advantages. Can be more accurate than hand-drawn designs - it reduces human error. You can save and edit ideas, which makes it easier and cheaper to modify your design as you go along. You can modify existing ideas, which saves time.

CAM Advantages. Is faster because machining speeds are higher. greater accuracy. greater consistency: every finished product is the same.

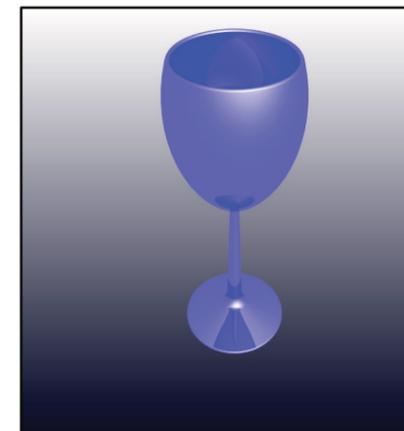
Disadvantages of CAD/CAM
 The software/equipment itself is expensive so initial costs are high. Need to be trained how to use the software and machinery.



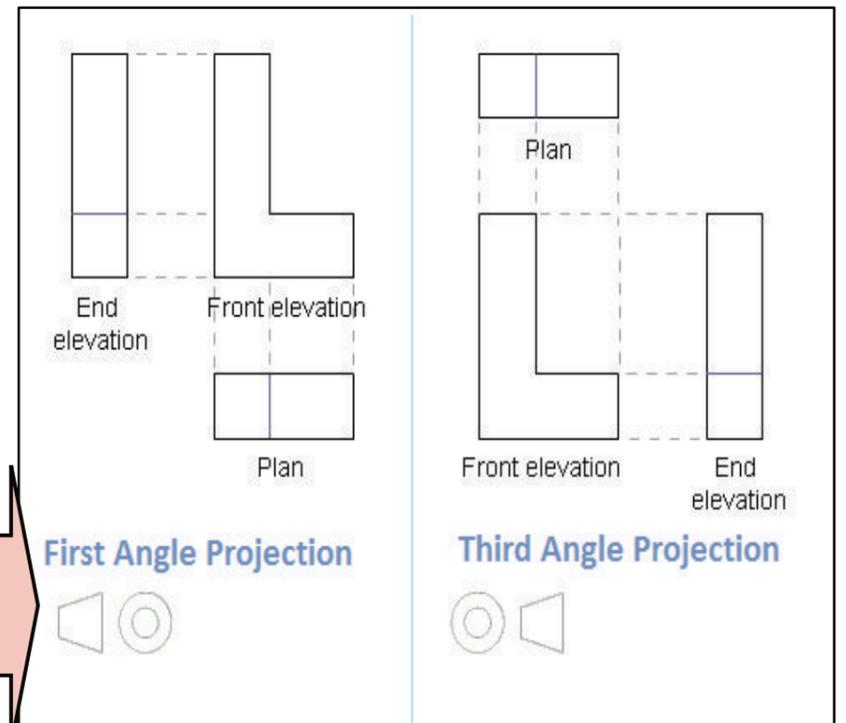
Remember the Pro Desktop icons and drawing tools. Remember to select face, go to work plane and select new sketch when you want to add or remove material to/from your design.

Projection	Symbol
First angle	
Third angle	

An engineering drawing is a type of technical drawing used to define the requirements for engineering products or components. Typically, the purpose of an engineering drawing is to clearly and accurately capture all geometric features of a product or component so that a manufacturer or engineer can produce the required item. It may also describe the process of making the item.

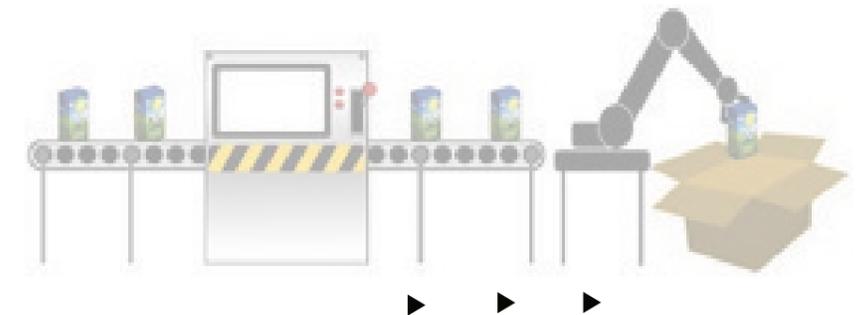
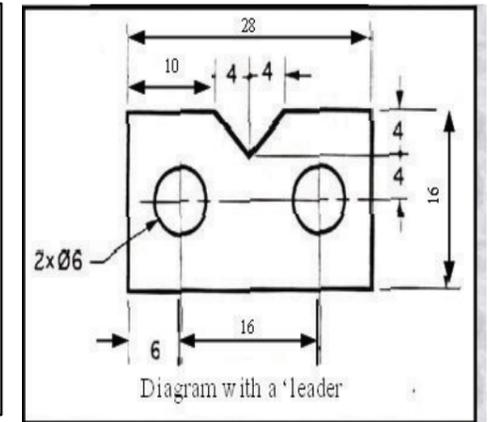


Rendering means the process of adding colour, shading, and texturing to an image. It is used in CAD to make a drawing look realistic.



STL (an abbreviation of "stereolithography") is a file format that allows a CAD drawing to be saved and manufactured using CAM or 3D Printing.

The purpose of dimensioning is to provide a clear and complete description of an object. A complete set of dimensions will permit only one interpretation needed to construct the part.



Year 8 – Design and Technology - Food Knowledge Organiser



Key Words

Understand and be able to spell the words below:

- Nutrition
- Healthy Eating
- Eatwell Guide
- Balanced Diet
- Cooking
- Baking
- Chopping
- Slicing
- Health and Safety
- Food Hygiene
- Oven
- Hob
- Designing
- Evaluate
- Sensory
- Analysis
- Seasonality
- Ingredients
- Vegetables
- Savory
- Food Provenance
- Portion Size
- Convenience
- Foods
- Vitamins
- Minerals
- Technique

Vitamins & Minerals

Vitamins and minerals are considered to be **Essential nutrients**. They perform hundreds of roles in the body. They strengthen bones, heal wounds, and boost the immune system. They also convert food into energy, and repair cellular damage.

Vitamin A: Good eyesight, growth and healthy skin tissue.

Sources: Cheese, carrots, Eggs, fish, sweet potatoes

B Vitamins: B1 release of energy, B2 Tissue repair, B3 Energy release, B9 Baby growth during pregnancy.

Sources: Meat, Fish, Whole grain bread, nuts and pluses

Vitamin C: Protects from infection, heals cuts and helps absorb Calcium and iron.

Sources: Kale, broccoli, citrus fruits, peppers and red berries

Vitamin D: Helps absorb calcium for strong bones and teeth.

Sources: Sunlight, liver, eggs and salmon.

Calcium: Helps form strong bones and teeth

Sources: Dairy foods, kale, nuts and sardines (boney fish)

Iron: Needed to form red blood cells and carry oxygen around the body

Sources: Green vegetables, Nuts, pluses and red meat.

Cooking Techniques:

Rough Puff Pastry



Combining Flavours.



Shaping



Rubbing-in



All-In-One



Eat at least 5 portion of a variety of fruit and vegetables a day

Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates

The Eatwell Guide

The Eatwell plate highlights the different types of food that make up our diet.

Shaping.



Eat some beans, pulses, fish, eggs, meat and other protein



Have some dairy or dairy alternatives (such as soya drinks and yoghurts)

Choose unsaturated oils and spreads, and eat in small amounts

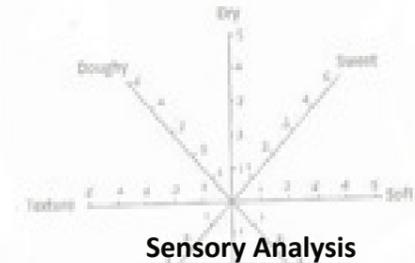


Health and Safety

- Wear a clean apron
- Wash your hands
- Tie back long hair
- Keep food preparation surfaces clean
- Remove nail varnish
- Store food appropriately.
- Do not run
- Wipe up food spills immediately.
- Handle knives and other sharp equipment with care.
- Turn handles of saucepans away from the front of the stove when cooking.
- Wash kitchen and eating utensils after use in hot soapy water.
- Dry equipment properly
- Put away equipment
- Use oven gloves when removing items from the oven



Star Profiling



The scientific way of analysing and measuring human responses to food and drink.

PREVENT CROSS CONTAMINATION

USE CORRECT COLOUR CODED CHOPPING BOARDS & KNIVES

RAW MEAT

RAW FISH

COOKED MEATS

SALADS & FRUITS

VEGETABLES

DAIRY PRODUCTS



Year 8 Art & Design - Knowledge Organiser

A: Key Skills:

- 1: Colour theory
- 2: Technical drawing techniques
- 3: Observation skills
- 4: Colour blending techniques

B: Expressing an opinion: Sentence starters

- I feel/believe that
- In my opinion
- It seems to that
- Based on my experience

1: POP ART:

Pop Art is a visual art movement that emerged in the mid 1950s in Britain, and in the late 1960s in America.

Pop Art is inspired by Mass Culture, such as Advertising, Comic Books, and Everyday Objects.

Pop Art makes use of Minimal Clear images and Bold colours, often with a Thick Black Outline

Roy Lichtenstein

Roy Fox Lichtenstein was an American pop artist. During the 1960s, along with Andy Warhol, Jasper Johns, and James Rosenquist among others, he became a leading figure in the new art movement.



Key Words

Composition, Vibrant
Refine, Primary, Relevant
View, Secondary, Story,
Perspective, Comic,
Detail, Complementary,
Colour, Characteristics,



Primary Colours



Secondary Colours



Tertiary Colours

2: GUSTAV KLIMT: Master of shapes & pattern

- Klimt's work is distinguished by the **elegant gold decoration**.
- He uses **strong bold** colours, and creates rich **textures**.
- His **style** is often described as **eccentric** which is **individual** and unforgeable.
- He often painted many **delicate** detailed portraits.
- His style was simplified and **decorative** with **natural patterns**.



Warm colour palette



Key Words

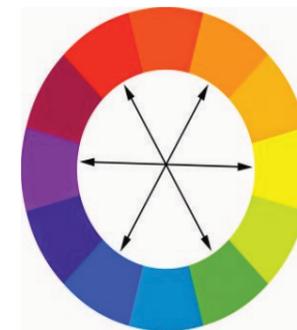
Technique
Application
Nature
Rich
Detail
Eccentric
Warm
Shapes
Elegant
Expressive
Pattern

3: HENRI MATISSE:

Matisse was a French artist who created vibrant still life paintings. They consisted of pattern and solo colours, with every area of the painting full of imagery and decoration.

In his later years, Matisse's eye sight started to fail, so he began to create paper cut outs. He produced images using scissors gliding through brightly coloured card acting as a paint brush. The use of complimentary colours were important to his work, as were overlaps.

Matisse used every piece of paper creating art from both the positive and negative.



Complementary colour palette:
Colours opposite each other



Positive & negative space

Key Words

Positive
Negative
Overlap
Complementary
Vibrant
Cutout
Space
Expression



PE Knowledge Organiser

The Skeletal System

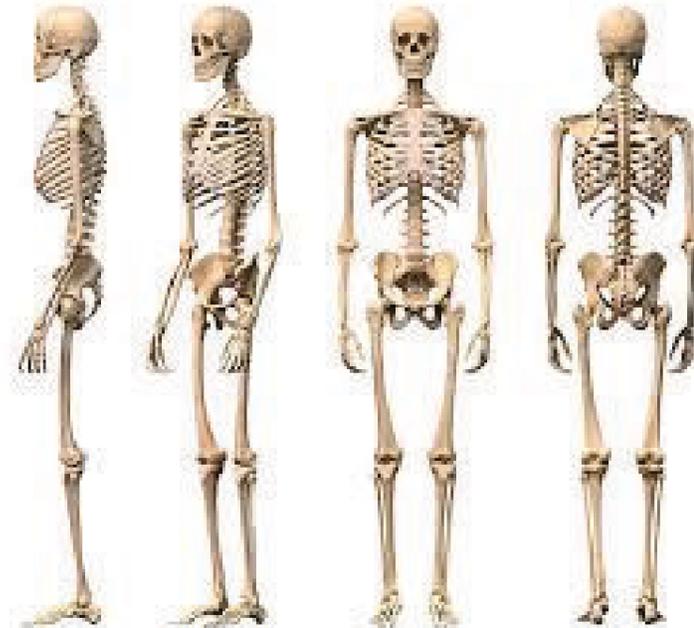
The functions of the skeleton include:

1. **Protection** –it acts as a shield for delicate parts of the body.
2. **Mineral storage** –it contains supplies of calcium.
3. **Movement** –it is essential for mobility.
4. **Support** –it holds muscles and organs in place.

Your **skeleton** determines your height and build. Tall and thin people will have long and light bones. Shorter, stockier people will have short, thick bones. Some sports are more suited to people who have a particular size or body shape. For example, a **rugby** prop is usually short and stocky; **netball** is best suited to those who are tall with long bones.

Classification of bones

Long bones such as the **femur, humerus or tibia** are responsible for enabling movement and act like levers. Flat bones protect vital organs in your body. For example, your **cranium** (skull) protects your brain and your pelvis protects organs in the urinary system and reproduction system. Short bones such as the **carpals and tarsals**, are light and strong. They enable fine movement.



Your rib cage is not one solid piece of bone. Rather it has gaps between each rib so that it can be flexible, enabling it to expand and contract when you breathe.

Connective tissue

Ligaments attach bone to bone and provide stability at your joints.

Tendons attach muscle to bone. When muscles contract they pull on the bone and produce movement of the body.

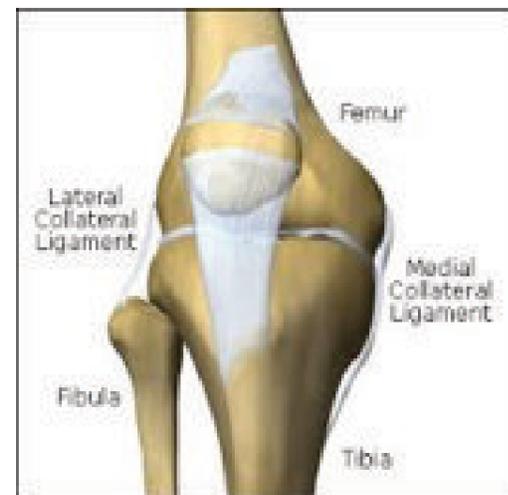
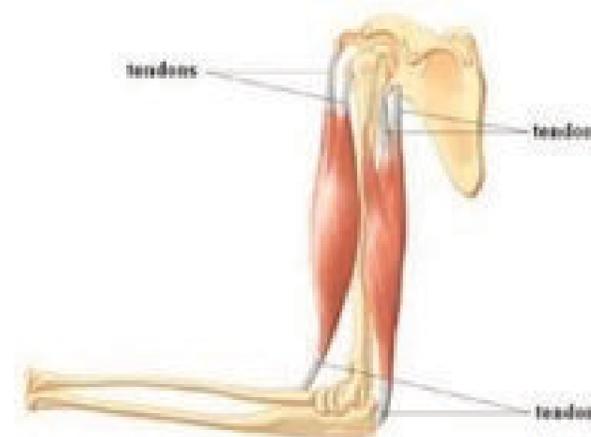
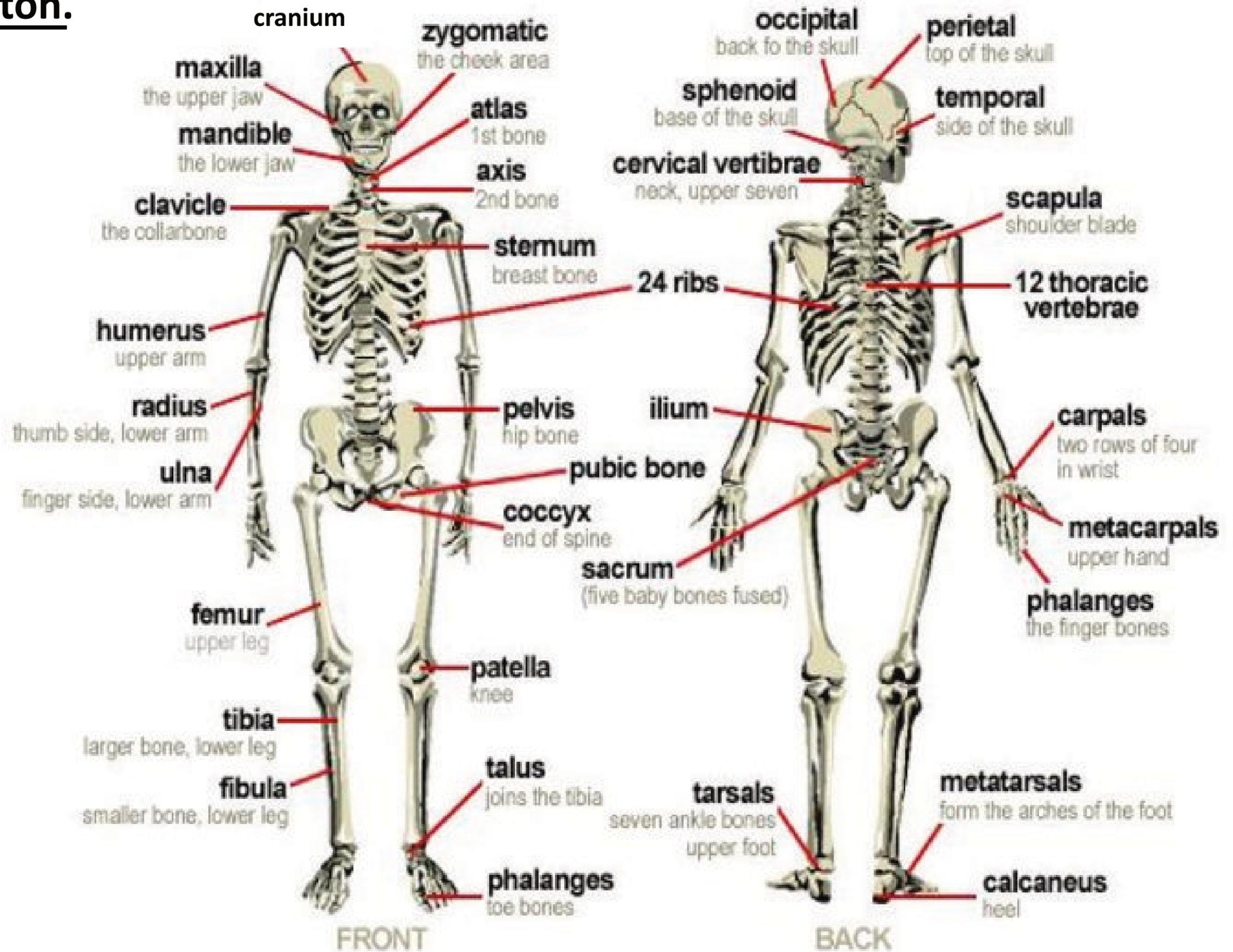


Figure 2



PTO

The human skeleton.



KS3 MUSIC KNOWLEDGE ORGANISER

Treble Clef

E F G A B C D E F

E G B D F

F A C E

Musical Elements

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

D \flat	E \flat	G \flat	A \flat	B \flat	D \flat	E \flat	G \flat	E \flat	G \flat		
C \sharp	D \sharp	F \sharp	G \sharp	A \sharp	C \sharp	D \sharp	F \sharp	C \sharp	F \sharp		
C	D	E	F	G	A	B	C	D	E	F	G



Chorus
Flashback
Forum Theatre
Narratio



genre
style
genre
rehearsal

KS3 Keywords
Spellings

naturalistic
tableau
character
techniques
Improvisation



Promenade stage
Monologue
Proscenium Arch
Realism

