

# Knowledge Organiser

## Year 8 Term Three

*Striving for Excellence, Opportunities and Success for all*



*Together, we are doing  
what we can to save lives,  
stay positive, stay home,  
stay safe*



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Essential: Black or blue pen, Pencils, Ruler (30cm), Protractor, Compass, Rubber, Pencil, Sharpener, Purple Pen, Scientific Calculator Coloured Crayons, Student Organiser, Knowledge Organiser and Locker Key  
Additional: Coloured pens, Highlighters, Cue Cards or Post-it Notes





# ENGLISH: ROMEO AND JULIET

## KEY CONTEXT: ELIZABETHAN ENGLAND

### QUEEN ELIZABETH I:

- She was queen when Shakespeare wrote many of his plays. She loved theatre and supported him generously with money.
- Elizabeth I made Protestantism the official religion of England, which angered many Catholics and led to much conflict.
- Throughout her 45 year reign, she led England in becoming a world superpower (a really powerful nation).
- Before Queen Elizabeth, plays were not seen as a form of entertainment. However, she loved watching plays and had her own company of actors.

### FAMILY:

- Patriarchal societies are ones where men are dominant, and have control over women e.g. by choosing who they would marry.
- The father was the undisputed head of the household. Women had no rights or authority in law. They could not own property or money, but could influence their husbands.
- Children were regarded as 'property' and could be given in marriage to a suitable partner. Marriage was often a political or financial transaction to secure and retain wealth.
- It was not unusual to be married very young. In high society, children were often raised by a 'wet nurse' and did not have a strong bond with parents.

### RELIGION:

- Everybody had to go to church on Sundays. Divorce was almost impossible and religion was more powerful than law.
- Romeo & Juliet was set in a catholic society with a strong belief in damnation (punishment in hell) for sin.
- Suicide and bigamy were both considered to be mortal religious sins.
- Shakespeare was writing following 'The Reformation'. This was when England became a protestant nation, having broken away from from papal control (that of the Pope) by Henry VIII.
- Going against your family was seen as betraying God!

### FATE:

- Fate is the belief that your life is mapped out for you, or 'written in the stars'.
- Many Elizabethans believed God decided your fate and that astrology could help you identify your course in life.

### CRIME AND PUNISHMENT:

- Punishment for crimes was extremely harsh. Serious felonies, such as murder, involved public hangings.
- Less strict punishments could include banishment. The offender would be forced to live outside the city and protection of the law. A sentence of banishment would often be for life.
- Public brawls were common.

### TRAGEDY:

- Tragedies are types of plays that were extremely popular at the time Shakespeare was writing.
- Tragedies come from Ancient Greek society.
- One main feature of Greek tragedies is that they included a hero who experienced a downfall which eventually ends in

## PLOT SUMMARY

### ACT 1



The play begins with a fight between the Montague and Capulet servants and soon turns into a huge brawl with some key figures from both families joining in. The fight is over nothing and the Prince arrives to break it up. He is sick of all the fighting and warns them that if there is any further fighting they will be punished with death. We learn that Romeo is in love with a girl called Rosaline but that she doesn't love him back. Mercutio, Romeo & Benvolio gatecrash a Capulet Banquet where Romeo and Juliet meet and fall in love at first sight, unaware that their families are enemies. Tybalt spots Romeo and is furious. He wants to fight him but Lord Montague stops them.

### ACT 2



Romeo sneaks into the Capulet's mansion to look for Juliet. This is the famous balcony scene (though there is no balcony!). They both agree that they want to marry the next day. The next day, Romeo goes to see the Friar asking him to marry them. The Friar agrees in the hope that it will bring an end to the family feuds. Romeo meets his friends Mercutio and Benvolio and discuss Tybalt whom has challenged Romeo to a duel. The Nurse arrives with a message from Juliet that their wedding has been organised that day. Romeo and Juliet get married in secret.

### ACT 3



Benvolio and Mercutio meet face to face with Tybalt who is looking for Romeo. Mercutio mocks Tybalt. Romeo arrives and refuses to fight Tybalt due to being married to his cousin - though he can't tell Tybalt this as it's a secret. Mercutio is outraged that Romeo isn't honouring his family. He fights Tybalt instead. Romeo tries to intervene and instead gets in the way, resulting in Mercutio being stabbed and killed. Tybalt runs away and Benvolio encourages Romeo to run away before the Prince arrives. In the meantime, Romeo seeks revenge and kills Tybalt. The Prince interrogates Benvolio and decides Romeo should be banished from Verona as he was not all at fault. Romeo and Juliet spend the night together before he goes to Mantua. Juliet is devastated and her father (Capulet) decides to cheer her up by arranging for her to marry Paris. She refuses and her parents are angry. The nurse advises that she marries Paris anyway and ignore her marriage with Romeo.

### ACT 4



Juliet is devastated as she loves Romeo not Paris. She goes to see the Friar and threatens to kill herself. The Friar has a plan and gives her a potion that makes her seem like she is dead. He informs her that he will send a message to Romeo and he will come and collect her from the tomb when the potion wears off. Juliet's family think she is dead and grieve for her.

### ACT 5

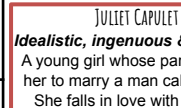


Friar Lawrence sends a message to Romeo, however it gets lost on the way. Instead, news reaches Romeo that his wife is dead. Romeo immediately goes to visit her tomb, taking with him some poison as he no longer wants to live. He sees Juliet and drinks the poison. He dies. Juliet then wakes up and sees Romeo dead and kills herself too. Everyone arrives at the tomb and realises what has happened. Montague and Capulet realise that the feud has caused the death of their children and decide to make peace.

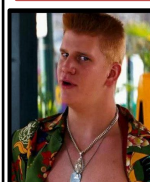
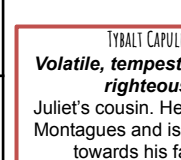
## CHARACTERS



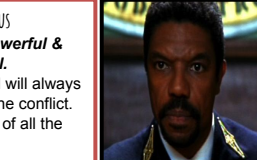
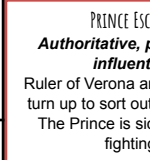
**ROMEO MONTAGUE**  
**Melancholic (depressed), idealistic and passionate.**  
A young man who is romantic and passionate. He falls in love with Juliet.



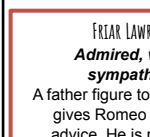
**MERCUTIO**  
**Anarchic, impulsive & precocious.**  
Romeo's friend. He is a joker and doesn't take life too seriously.



**BENVOLIO MONTAGUE**  
**Appeasing, sincere & stalwart (loyal and reliable).**  
Romeo's cousin and best friend. He is sensible and a peacemaker; he doesn't enjoy conflict.



**THE NURSE**  
**Maternal, submissive & uncouth.**  
Has brought up Juliet since she was a baby. She is more like a mother to Juliet.



## KEY QUOTATIONS

'What, drawn, and talk of peace? I hate the word, As I hate hell, all Montagues and thee!' **Tybalt**

'O brawling love, O loving hate' **Romeo**

'I'll look to like, if looking liking move' **Juliet**

'O she doth teach the torches to burn bright' **Romeo**

'My only love sprung from my only hate' **Juliet**

'Romeo, Romeo, wherefore art thou Romeo?' **Juliet**

'Juliet is the sun' **Romeo**

'O swear not by the moon, the inconstant moon' **Juliet**

'These violent delights have violent ends' and 'they stumble that run fast' - **Friar Lawrence**

'thou art a villain' **Tybalt**

'O calm, dishonourable, vile submission!' **Mercutio**

'...a plague o' both your houses' **Mercutio**

'O, I am fortune's fool!' **Romeo**

'Hang thee young baggage, disobedient wretch!' **Lord Capulet**

'O serpent heart, hid with a flowering face' **Juliet**

'I long to die if what thou speak'st speak not of remedy' **Juliet**

'Romeo, Romeo, Romeo! Here's drink - I drink to thee.' **Juliet**

'O child, O child! My soul, and not my child!' **Lord Capulet**

'They I defy you, stars!' **Romeo**

'O happy dagger!' **Juliet**

'all are punish'd' **Prince**

'O brother Montague, give me thy hand' **Lord Capulet**

WRITER'S METHOD	HOW SHAKESPEARE DOES THIS
<b>Foreshadowing:</b> When the writer gives a hint about what's to come later in the story.	There are hints that Romeo is going to die when Romeo leaves Juliet after their first night together. She sees him <b>'dead in the bottom of the tomb'</b> .
<b>Dramatic irony:</b> When an audience knows something the characters do not.	Shakespeare uses this to involve the audience with the story which results in them having an emotional connection with the characters and the plot. We know they will die right from the start. Mercutio later doesn't know why Romeo won't fight Tybalt <b>'O calm, dishonourable, vile submission'</b>
<b>Imagery:</b> Descriptive language that helps you to imagine.	Shakespeare uses time imagery to create suspense - <b>'They stumble that run fast'</b> and natural imagery to describe the characters - <b>'Juliet is the sun.'</b>
<b>Pathetic Fallacy:</b> Using the weather to reflect the mood or atmosphere.	At the beginning of Act 3 scene 1, Benvolio describes the scene as <b>'hot day'</b> which foreshadows that there could be conflict.
<b>Poetry:</b> The expression of feeling or ideas that give intensity in a particular style or rhythm.	Shakespeare uses different rhythms to show different emotions. <b>'Did my heart love till now, forswear it sight, for I ne'er saw beauty till this night.'</b>
<b>Oxymoron:</b> A figure of speech where a writer combines two ideas that are opposite.	When the audience first meet Romeo he uses many oxymorons to show his confusion and despair over Rosaline. Examples include <b>'heavy lightness, 'brawling love' 'feather of led'</b> etc
<b>Sonnet:</b> A type of poem, usually about love, with fourteen lines. Sonnets typically have ten syllables per line.	Romeo and Juliet both speak in the form of a sonnet when they first kiss. Shakespeare uses this method to show their love for one another. <b>' My lips, two blushing pilgrims, ready stand To smooth that rough touch with a tender kiss.</b>
<b>Soliloquy:</b> Speaking thoughts aloud when by yourself on stage, regardless of any hearers.	Romeo speaks in the form of a soliloquy to show the audience his love for Juliet after meeting her for the first time. It is to show his deep and most intimate feelings towards her. <b>'She speaks, yet she says nothing. What of that? Her eye discourses. I will answer it'</b>

KEY TOPIC VOCABULARY	STUDENT FRIENDLY DEFINITION	USE IT!
<b>Tragedy</b>	Something that causes suffering or destruction. In a play, traditional tragedies involve an unhappy ending or a downfall of a character.	<i>Romeo and Juliet</i> is a tragedy and the play's ending is tragic as both characters commit suicide.
<b>Conflict</b>	A disagreement or 'clash'.	Various types of conflict are presented in the play including physical conflict (fighting).
<b>Fate</b>	A development of events outside a person's control. In Greek mythology, each person had their own destiny.	It is fate (written in the stars) that Romeo and Juliet were meant to be together, despite coming from feuding families.
<b>Loyalty</b>	Staying firm in your support for someone or something.	Mercutio and Tybalt are loyal characters towards their families. Mercutio is outraged when Romeo is not loyal towards the Montagues.
<b>Hierarchy</b>	A system where members are ranked according to status or authority.	Shakespeare shows Verona's hierarchy through the Prince who makes the rules and is respected. He also shows that the male gender had a higher position in the hierarchy through the relationship between Juliet and her father.
<b>Futile</b>	Something is futile if it has no results or effect.	In the prologue, Shakespeare makes reference to the conflict between the Montagues and Capulets as being futile as no one seems to know the reason behind their dispute.
<b>Patriarchy</b>	The father or eldest male is the head of the family.	Juliet's father is furious when he discovers that Juliet doesn't want to marry Paris (someone he has chosen for her to marry) because he is the patriarch.

WHY SHAKESPEARE WROTE THE PLAY
Shakespeare wanted to experiment with several different ideas that weren't seen in his time. These include similarities and differences of love & hate and good & evil.
Shakespeare also handles time and its effects on Fate and questions whether omens and dreams should be used to warn use of tragic consequences.
Shakespeare wanted to highlight the importance of women. As Queen Elizabeth was on the throne at the time of writing, he wanted to show strong and powerful women could be. He does this through the character of Juliet.



# Physics - Forces

Keyword	Definition
Air Resistance	Force on an object moving through the air
centre of mass	The point in an object where all the mass of an object seems to act.
contact force	A force that acts when an object is in contact with a surface, air, or water.
Deformation	Changing shape due to a force.
Drag force	The force acting on an object moving through air or water that causes it to slow down.
elastic limit	The point beyond which a spring will not return to its original length when the force is removed.
friction	Force opposing motion which is caused by the interaction of surfaces moving over one another. It is called 'drag' if one is a fluid.
Hooke's Law	A law that says that if you double the force on an object, the extension will double.
law of moments	An object is in equilibrium if the clockwise moments equal the anticlockwise moments.
newton	Unit for measuring forces (N).
pressure	The ratio of force to surface area, in $\text{N/m}^2$ , and how it causes stresses in solids.
stress	The effect of a force applied to a solid, found using $\text{stress} = \text{force}/\text{area}$ .
Upthrust	The upward force that a liquid or gas exerts on a body floating in it produced by the collisions of the particles in the liquid or gas.

## Equations

$$\text{fluid pressure (N/m}^2\text{)} = \frac{\text{force (N)}}{\text{area (m}^2\text{)}}$$

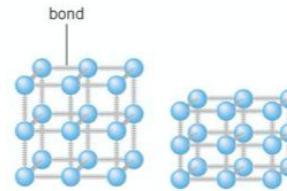
$$\text{moment (Nm)} = \text{force (N)} \times \text{perpendicular distance from the pivot (m)}$$

## Drag

As an object moves through a medium the particles come into contact with the object and slow it down.



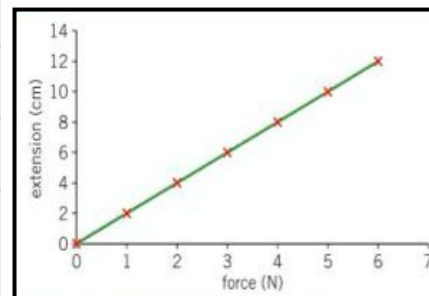
## Squashing



## Hooke's Law

If the extension doubles as you double the force then the object obeys Hooke's Law.

**Describe what happens to a spring as you increase and decrease the force on it.**



## Measuring Forces

Forces are measured using devices called Newton meters,



The floor pushes up on you when you stand on it. You compress the bonds between the particles when you exert a force. The particles push back and support you. A support force is called the reaction force

## Law of Moments

A turning force acts at a distance from a pivot. The turning effect of a force is called a moment. The moment depends on the force being applied and how far it is from the pivot.

When an object is in equilibrium the sum of the clockwise moments is equal to the sum of the anticlockwise moments. This is the law of moments.



# Physics - Forces

## Equations

$$\text{fluid pressure (N/m}^2\text{)} = \frac{\text{force (N)}}{\text{area (m}^2\text{)}}$$

$$\text{stress (N/m}^2\text{)} = \frac{\text{force (N)}}{\text{area (m}^2\text{)}}$$

## Stress

When you stand on any surface you exert a force on it because of your weight. Your weight is spread out over the area of your foot. You are exerting a pressure on the ground, called stress.

Stress acts  $90^\circ$  to the surface.

## Activity

**Calculate the stress a 600 N hockey player exerts on the ground when**



- a) stood on two feet  $200 \text{ cm}^2$
- b) stood on one foot  $20 \text{ cm}^2$

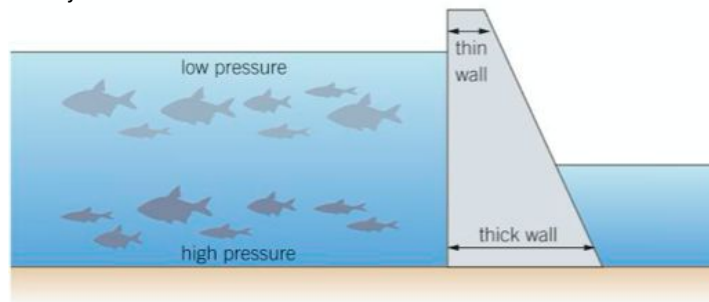
## Pressure in a Liquid

Water is a fluid. The water molecules are pushing on each other and on surfaces, and this liquid pressure acts in all directions.

Liquids are incompressible because the particles in a liquid are touching each other and there is very little space between them.

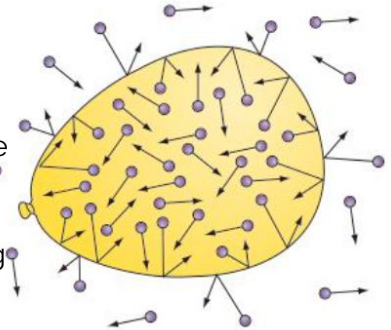
**Describe how pressure changes depending on depth.**

**Explain why the dam wall is thicker at the bottom compared to the top**



## Pressure in a Gas

You are surrounded by a fluid called air. Pressure in a gas or a liquid acts in all directions. Lots of collisions of air molecules, such as inside a balloon, make a high gas pressure. There is a big force over a small area.



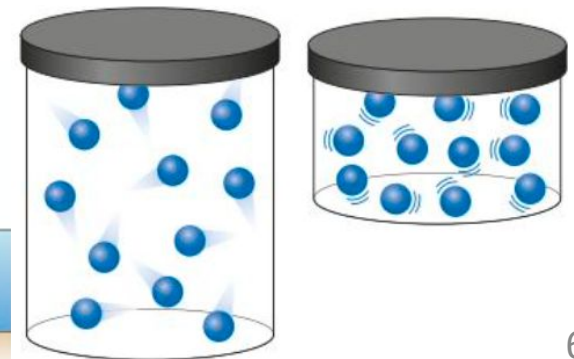
## Activity

**Calculate the pressure when:**

- a) a force of 11 N is exerted on an area of  $0.0001 \text{ m}^2$
- b) a force of 22 N is exerted over an area of  $0.0001 \text{ cm}^2$

## Gas Pressure and Volume

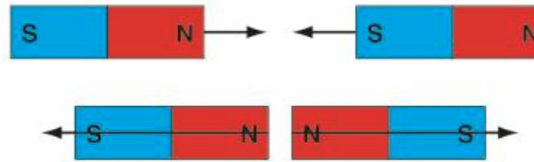
You increase gas pressure if you squash or heat a gas. The same amount of gas in a smaller volume results in more collisions between air molecules and the container walls, so the pressure is higher.



# Physics - Electromagnets

Keyword	Definition
circuit breaker	A device that uses an electromagnet to break a circuit if the current is too big.
core (electromagnet)	Soft iron metal which the solenoid is wrapped around.
electric bell	A non-permanent magnet turned on and by controlling the current through it.
loudspeaker	A device that uses an electromagnet to make sound from a varying potential difference. Turns an electric signal into a pressure wave of sound.
Magnet	A material with a magnetic field around it in which a magnetic material experiences a force.
magnetic field	A region in which there is a force on a magnet or magnetic material.
magnetic field lines	Imaginary lines that show the direction of the force on a magnetic material.
magnetic force	Non-contact force from a magnet on a magnetic material.
magnetic poles	The ends of a magnetic field, called north-seeking and south-seeking poles.
Magnetise	To make a material magnetic.
permanent magnet	An object that is magnetic all of the time.
solenoid	Wire wound into a tight coil, part of an electromagnet

## Magnets

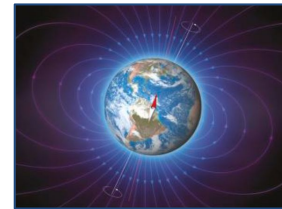
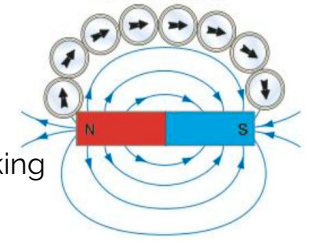


A magnet has two magnetic poles, a north seeking pole and a south seeking pole.

**North seeking poles** *repel* **North seeking poles**  
**South seeking poles** *repel* **South seeking poles**  
**North seeking poles** *attract* **South seeking poles**

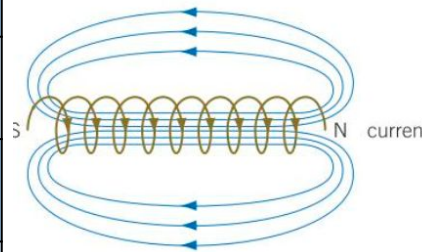
Some materials are magnetic. If you put iron, steel, cobalt or nickel in a magnetic field they experience a magnetic force. This is a non-contact force. The force is stronger the closer you are to the magnet.

## Plotting magnetic field lines



The Earth has its own magnetic field.

## Electromagnets



The magnetic field around a single loop isn't very strong. You can wind lots of loops together to make a coil, called a solenoid. If a current flows through it you have an electromagnet.

The strength of an electromagnet depends on:

- the number of turns, or loops, on the coil. More turns of wire will make a stronger electromagnet
- the current flowing in the wire. More current flowing in the wire will make a stronger electromagnet
- the type of core. Using a magnetic material for the core will make a stronger electromagnet.



# Physics - Energy

Key term	Definition
<b>conduction</b>	Transfer of thermal energy by the vibration of particles.
<b>convection</b>	Transfer of thermal energy when particles in a heated fluid rise.
<b>convection current</b>	The movement of heated fluids where hot fluid moves upwards, and cold fluid moves downwards.
<b>deform</b>	When an object is stretched or squashed, which requires work.
<b>displacement</b>	The distance an object moves from its original position.
<b>infrared radiation</b>	Radiation given off by the Sun and other objects that brings about energy transfer.
<b>input force</b>	The force you apply to a machine.
<b>lever</b>	A type of machine which is a rigid bar that pivots about a point.
<b>output force</b>	The force that is applied to the object moved by the machine.
<b>radiation</b>	The transfer of energy as a wave.
<b>temperature</b>	A measure of the motion and energy of particles.
<b>thermal conductor</b>	Material that allows heat to move quickly through it.
<b>thermal energy store</b>	The store containing energy due to the vibration or movement of particles of a substance.
<b>thermal insulator</b>	Material that only allows heat to travel slowly through it.
<b>work</b>	The transfer of energy when a force moves an object through a distance, in joules.

## Equations

$$\text{work done} = \text{force} \times \text{distance moved}$$

(J)                      (N)                      (m)

## Model

$$\begin{aligned} \text{work done} &= \text{force} \times \text{distance} \\ &= 1 \text{ N} \times 0.2 \text{ m} \\ &= 0.2 \text{ J} \end{aligned}$$

## Practice

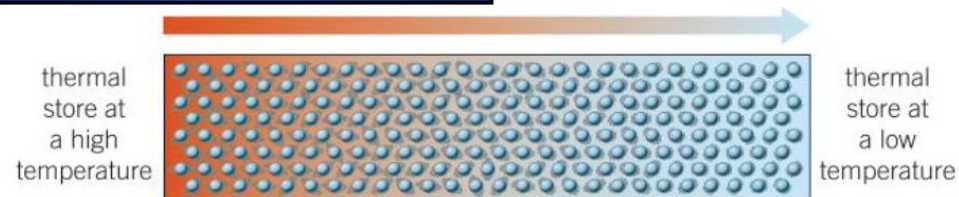
Calculate how much work is done when a force of 2 N is applied to move an object 1 m

## Simple Machines

A simple machine makes it easier to lift things, move things or turn things. It reduces the force needed or increases the distance that something moves.

**Describe how levers and pulleys work - use diagrams to help you**

## Energy Transfer; Conduction



## Energy Transfer; Convection



**Describe how conduction is different to convection in terms of the states of matter involved and motion of the particles**

## Energy and Temperature

**Explain the difference between energy and temperature**

## Radiation

Very hot things emit light and infrared radiation. Dark colours absorb infrared and light colours reflect infrared

**State whether black clothes or white clothes will dry quicker on a sunny day. Explain your thinking.**

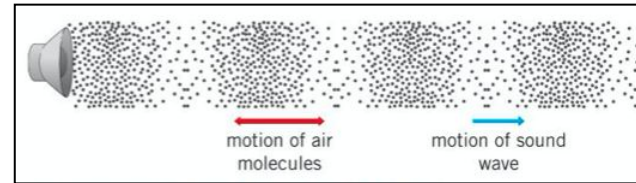
# Physics - Waves

Keyword	Definition
compression	Force squashing or pushing together, changes the shape of an object.
electromagnetic spectrum	Radiation produced by the Sun and other sources.
infrared (IR) (radiation)	Radiation given off by the Sun and other objects that brings about energy transfer.
longitudinal wave	A wave in which the direction of vibration is the same as that of the wave.
loudspeaker	Uses an electromagnet to make sound from a varying potential difference. Turns an electrical signal into a pressure wave of sound.
microphone	Turns the pressure wave of sound hitting it into an electrical signal (potential difference).
pressure wave	An example is sound, which has repeating patterns of high-pressure and low-pressure regions.
rarefaction	Where the air particles are spread out in a longitudinal wave.
superpose	When waves join together so that they add up or cancel out.
transmission	Where waves travel through a medium rather than being absorbed or reflected.
transverse wave	A wave in which the direction of vibration is perpendicular to that of the wave.
ultrasound	Sound waves with frequencies higher than the human auditory range.
wave	Vibrations that transport energy from place to place without transporting matter.

1. Draw the electromagnetic spectrum and add a picture above each part and write its use

2. Draw a table to show each wave and whether it is absorbed by the body and its effect on the body.

## Types of Wave

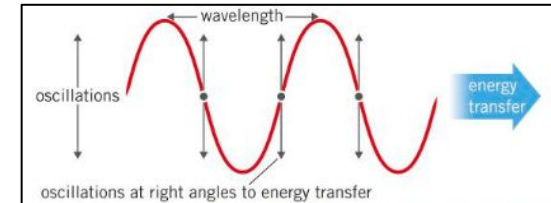


### Longitudinal

Examples include sound waves

### Transverse

Examples include light waves, radio waves and X-rays



### Loudspeaker

How do loudspeakers work with microphones to produce sound?

### Modelling

We can model how waves behave using a slinky or a ripple tank.

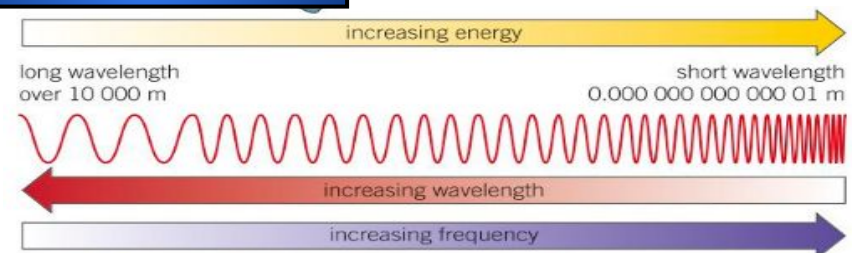
Describe how we can use each method to model the different types of wave

### Ultrasound

You can hear up to 20,000 Hz. Ultrasound is a sound with a frequency above 20,000 Hz.

Can you name and describe two ways we use ultrasound?

### Electromagnetic Waves



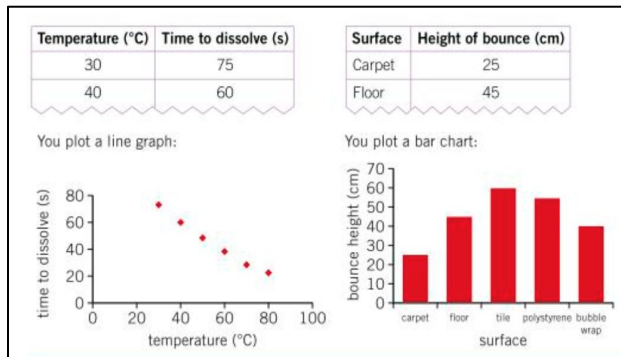
Keyword	Definition
Accurate	Close to the true value you are measuring
Categoric data	Data that has values as words
Continuous data	Data that has values as numbers
Control variable	Variable that remains unchanged
Control measures	Action to reduce a hazard
Dependent variable	Variable you are measuring
Discontinuous data	Values that are words or discrete number
Discrete	A value that can only have whole number values
Hazard	Situation that presents a threat to people
Hypothesis	An explanation you can test that includes a reason and a "science idea"
Independent variable	Variable you are changing and investigating
Outliers	Results that do not fit the pattern
Precise	Describes a set of repeat measurements that are close together
Prediction	A statement that says what you think will happen in an experiment
Repeatable	When repeat readings are close together
Reproducible	When another group gets similar results
Risk	How likely something is to be harmful
Variable	A factor that can be changed, measured or controlled

### WHAT SHOULD A PLAN INCLUDE?

For scientific enquiry a plan should include:

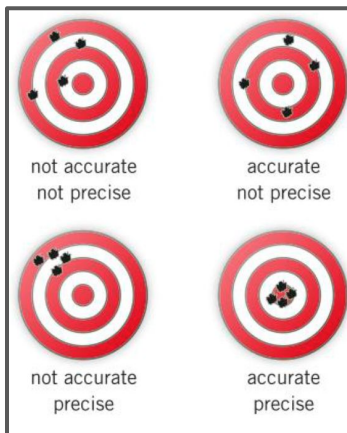
- a hypothesis and the data you need
- Independent and dependent variables
- Control variables and how they will be controlled
- Hypothesis: what you think will happen and why
- List of equipment needed
- Risk assessment
- Method of how you will use the equipment to collect the data

### WHICH GRAPH?



- If both independent and dependent variables are continuous you should plot a line graph.
- If the independent variable is categoric you should plot a bar chart.
- Independent variable is always plotted on the x-axis
- Dependent variable is always plotted on the y-axis

### ACCURACY AND PRECISION



### PLOTTING A GRAPH

When you draw a chart or plot a graph you should:

- Choose which numbers the axis should start and finish on, mark out an equal scale and label the axis with your independent and dependent variables
- Use a pencil and a ruler to draw your axis and plot your points or draw your bars
- Label the axis with quantity and unit
- Write a title for your graph



# French - La Nourriture

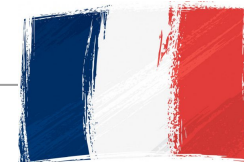
Qu'est-ce que tu manges pendant une journée typique? What do you eat during a typical day?



Subordinate Clause (2)	Verb (3)	Adverb of Quantity (4)	Noun (5)		(1) Phonics
<b>Pendant une journée typique,</b> During a typical day, <b>Pour le petit déjeuner,</b> For breakfast, <b>Pour le déjeuner,</b> For lunch, <b>Pour le dîner,</b> For dinner, <b>Pour le goûter,</b> For tea, <b>Comme casse-croûte,</b> As a snack, <b>Comme hors-d'œuvre,</b> As a starter, <b>Comme plat principal,</b> As a main course, <b>Comme dessert,</b> As a dessert, <b>Comme légumes,</b> For the vegetables,	<b>je mange</b> I eat <b>tu manges</b> you (s) eat <b>il mange</b> he eats <b>elle mange</b> she eats <b>nous mangeons</b> we eat <b>vous mangez</b> you (pl) eat <b>ils/elles mangent</b> they m/f eat	<b>un pot de</b> a pot of <b>un paquet de</b> a packet of <b>un kilo de</b> a kilo of <b>une tranche de</b> a slice of <b>une boîte de</b> a box of <b>une tablette de</b> a bar of <b>un morceau de</b> a bit of <b>un bol de</b> a bowl of <b>une assiette de</b> a plate of	<b>confiture (f)</b> jam <b>pizza (f)</b> pizza <b>beurre (m)</b> butter <b>chocolat (m)</b> chocolate <b>fromage (m)</b> cheese <b>gâteau (m)</b> cake <b>pain (m)</b> bread <b>potage (m)</b> soup <b>riz (m)</b> rice <b>sucre (m)</b> sugar <b>yaourt (m)</b> yoghurt <b>jambon (m)</b> ham <b>poisson (m)</b> fish <b>poulet (m)</b> chicken <b>chou (m)</b> cabbage <b>chou-fleur (m)</b> cauliflower	<b>biscuits (mpl)</b> biscuits <b>bonbons (mpl)</b> sweets <b>céréales (fpl)</b> cereal <b>chips (fpl)</b> crisps <b>pâtes (fpl)</b> pasta <b>frites (fpl)</b> chips <b>œufs (mpl)</b> eggs <b>champignons (mpl)</b> mushrooms <b>haricots verts (mpl)</b> green beans <b>légumes (mpl)</b> veg <b>oignons (mpl)</b> onions <b>petits pois (mpl)</b> peas <b>pommes de terre (fpl)</b> potatoes <b>fruits de mer (fpl)</b> seafood	<b>oi</b> [wa] <b>eau</b> [oh] <b>ui</b> [we] <b>an</b> [on] <b>ez</b> [ay] <b>ain</b> [an] <b>ch</b> [sh] <b>u</b> [oo]  <b>é</b> [ay] <b>è</b> [eh] <b>in</b> [an] <b>ou</b> [oo] <b>on</b> [on] <b>qu</b> [kuh] <b>gn</b> [nyuh] <b>au</b> [oh]
<b>Comme boisson,</b> As a drink, <b>Pour boire,</b> To drink,	<b>je bois</b> I drink <b>tu bois</b> you (s) drink <b>il boit</b> he drinks <b>elle boit</b> she drinks <b>nous buvons</b> we drink <b>vous buvez</b> you (pl) drink <b>ils/elles boivent</b> they m/f drink	<b>une boîte de</b> a can of <b>une bouteille de</b> a bottle of <b>un verre de</b> a glass of <b>une tasse de</b> a cup/mug of	<b>eau minérale (f)</b> mineral water <b>bière (f)</b> beer <b>limonade (f)</b> lemonade <b>café (m)</b> coffee <b>chocolat chaud (m)</b> hot chocolate <b>coca (m)</b> coke	<b>lait (m)</b> milk <b>thé (m)</b> tea <b>vin (m)</b> wine <b>jus d'orange (m)</b> orange juice <b>Orangina (f)</b> Orangina	<b>Key Vocabulary</b>  <b>Phonics</b> - the sounds that groups of letters make when spoken. <b>Justified Opinions</b> - an opinion with a reason. <b>Tense</b> - the time at which a verb takes place. <b>Infinitives</b> - the form of the verb found in the dictionary, ending in -er/-ir/-re <b>Conjugate</b> - to take an infinitive and change it into a tense. <b>Present tense</b> - used to describe something is happening now or normally happens. <b>Future tense</b> - used to describe something that will happen in the future. <b>PVS</b> - the family of words which go after verbs change depending on the noun that follows. <b>Intensifiers</b> - words which go before adjectives to make them more interesting. <b>Adverbs of Quantity</b> - used to say how something happens or is done, or how much of something there is.

# French

Qu'est-ce que tu aimes manger? What do you like to eat?



Opinion (6)	PVS + Noun	Connective	Quality Vocab (7)	Verb	Intensifiers (8)	Adjective (9)
<b>J'adore</b> I love <b>J'aime assez</b> I quite like <b>J'aime beaucoup</b> I really like <b>J'aime bien</b> I really like <b>Je n'aime pas</b> I don't like <b>Je n'aime pas du tout</b> I don't like at all <b>Je déteste</b> I hate <b>Je préfère</b> I prefer <b>Je ne supporte pas</b> I can't stand	<b>le fromage</b> (the) cheese <b>le gâteau</b> (the) cake <b>la pizza</b> (the) pizza <b>la bière</b> (the) beer <b>les oeufs</b> (the) eggs <b>les légumes</b> (the) vegetables <b>l'eau minérale</b> (the) water	<b>car</b> because <b>parce que</b> because <b>puisque</b> as <b>mais</b> but <b>cependant</b> however	<b>on me dit que</b> people say that <b>il faut admettre que</b> I must admit that <b>heureusement</b> fortunately <b>malheureusement</b> unfortunately <b>Je dirais que</b> I would say that <b>c'est vrai que</b> it's true that <b>ce n'est pas vrai que</b> it's not true that <b>pour moi</b> for me <b>selon mes amis</b> according to my friends <b>j'estime que</b> I reckon that	<b>c'est</b> (it is) <b>ça peut être</b> (it can be) <b>ce n'est pas</b> (it isn't)	<b>complètement</b> (completely) <b>tellement</b> (so) <b>un peu</b> (a bit) <b>plutôt</b> (rather) <b>trop</b> (too) <b>assez</b> (quite) <b>particulièrement</b> (particularly) <b>incroyablement</b> (incredibly) <b>extrêmement</b> (extremely) <b>vraiment</b> (really) <b>totalement</b> (totally) <b>absolument</b> (absolutely)	<b>mauvais pour la ligne/la santé.</b> bad for your figure/health. <b>bon pour la ligne/la santé.</b> good for your figure/health. <b>sain.</b> healthy. <b>malsain.</b> unhealthy. <b>délicieux.</b> delicious. <b>savoureux.</b> tasty. <b>dégoûtant.</b> disgusting. <b>sucré.</b> sweet. <b>salé.</b> salty. <b>épicé.</b> spicy.

Qu'est-ce tu vas faire? What are you going to do?

Subordinate Clause (10)	Verb (être) (11)	Infinitive + PVS + noun (12)	Verb (future)	Adjectives (13)	
<b>Demain</b> Tomorrow <b>Ce soir</b> Tonight <b>Ce weekend</b> This weekend <b>La semaine prochaine</b> Next week <b>Le weekend prochain</b> Next weekend <b>Plus tard</b> Later	<b>je vais</b> I am going <b>tu vas</b> you (s) are going <b>il va</b> he is going <b>elle va</b> she is going <b>nous allons</b> we are going <b>vous allez</b> you (pl) are going <b>ils vont</b> they (m) are going <b>elles vont</b> they (f) are going	<b>jouer au foot</b> to play football <b>regarder la télé</b> to watch TV <b>aller en ville</b> to go to town <b>manger au restaurant</b> to eat at a restaurant <b>retrouver mes amis</b> to meet my friends <b>faire de la gymnastique</b> to do some gymnastics <b>faire mes devoirs</b> to do my homework	<b>ce sera</b> it will be <b>ce ne sera pas</b> it won't be	<b>affreux.</b> awful. <b>agréable.</b> pleasant. <b>désagréable.</b> unpleasant. <b>embêtant.</b> annoying. <b>ennuyeux.</b> boring. <b>formidable.</b> terrific. <b>génial.</b> great.	<b>marrant.</b> amusing. <b>mauvais.</b> bad. <b>chouette.</b> great. <b>drôle.</b> funny. <b>merveilleux.</b> marvellous. <b>rigolo.</b> funny.

The Future Tense

# HISTORY: WW1

## THE TWO SIDES:

**Triple Alliance:** Germany, Austria-Hungary and Italy

**Triple Entente:** Britain, France and Russia.

## LONG TERM CAUSES:

**Militarism:** When a country builds up their armed forces.

**Alliances:** Countries join together and promise to help each other out in a war.

**Imperialism:** Competing to build up an Empire.

**Nationalism:** Groups of people with common characteristics wishing to rule themselves, may view themselves as superior to others.

## SHORT TERM CAUSES:

**28th June 1914:** Assassination of **Franz Ferdinand**; The heir to the Austro-Hungarian throne.

**Gavrilo Princip:** The Serbian nationalist who shot and killed Ferdinand.

**28th July 1914:** Austria declared war on Serbia, which led to the outbreak of WW1.

**4 August 1914:** Britain declares war on Germany

## OTHER KEY INFORMATION:

**War of Attrition:** A war based on wearing down your enemy's army, morale & economy.

**Western Front:** The area of fighting in Western Europe, mainly North-Eastern France & Belgium.

**Schlieffen Plan:** German plan in 1914 to attack and defeat France, then attack Russia so they would not have to fight both.

**Aug-Dec 1914:** Schlieffen plan fails.

**9 Nov 1918:** Kaiser Wilhelm abdicates

**11 Nov 1918:** Germany signs armistice, ending the war

## THE TRENCHES:

**Dugout:** A shelter dug into the side of the trench.

**No Man's Land:** The area of land between two opposing armies or trenches.

**Barbed wire:** Strong wire with sharp barbs at regular intervals, used to stop people passing.

**Parapet:** a protective wall or earth defence along the top of a trench.

## ORGANISATION OF THE TRENCHES:

**Sentries:** A soldier stationed to keep guard.

**Stand to:** standing ready for an attack.

**Vermorel Sprayer:** a liquid sprayed to neutralise a trench that had been contaminated by chlorine gas.

**NCO:** A type of officer in the army.

## LIFE IN THE TRENCHES:

**Trench Foot:** A condition of the feet caused by exposure in cold water or mud, could lead to amputation.

**Trench Fever:** A disease caused by lice bites.

**Rations:** A fixed amount of food allocated to individuals.

**Pests:** Rats & lice - trenches were often full of them.

## BATTLE OF THE SOMME:

**1 July – Nov 1916:** Battle of the Somme

**Sir Douglas Haig:** Commander in Chief of the Western Front

**Verdun:** The aim of the B.O.T.S was to relieve pressure at Verdun.

**Bombardment:** a continuous attack with artillery shells.

**Pals Battalions:** men who enlisted & served together - often from the same area.

**Creeping Barrage:** a line of men who slowly creep towards the enemy lines, to create cover for the soldiers advancing behind

**620,000:** British & French casualties

**500,000:** German casualties

## RECRUITMENT: WHY DID MEN JOIN UP?

**Patriotism:** British men were brought up to love their King and country.

**Social pressure:** Fear of being seen as a coward or being given a white feather by a woman.

**Sense of adventure:** Many British men had never travelled abroad – this was a chance to see the world!

**Propaganda:** posters that used very persuasive techniques to make men want to go.

**Belief in a quick victory:** Many thought the war would be 'over by Christmas'.

**January 1917:** Conscription introduced in Britain

**Conscription:** Compulsory order for all men 18 to 41 to join the army.

## WEAPONS:

**Artillery:** Large guns that fire explosive shells over long distances

**Bayonet:** A blade attached to the end of a soldier's rifle

**Munitions:** Military weapons and ammunition

**Poisonous gas:** Gas was spread by containers of it breaking under rifle fire. Later it was spread by artillery shell. Gases used were tear gas, mustard gas & chlorine gas.

**Spotter planes:** a plane used to observe enemy movements

**Machine guns:** a large gun that needed 4-6 men to work them. They had the fire-power of 100 guns.

**Tanks:** First used in 1916, they broke through German defences and sheltered British troops

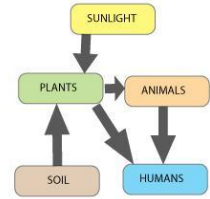
**The Mark I:** The first tank used in WW1 by the British.

**April 1915 –** Poison gas is used for the first time at the Second Battle of Ypres

**Sept 1916 –** The first tank is used in the Battle of the Somme

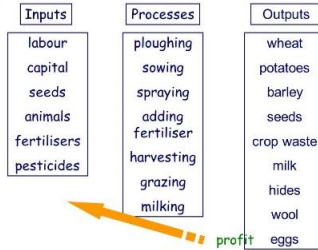


A simple ecosystem is made up of climate, soil, plants and humans/animals.



Every system has inputs, processes and outputs.

#### Farming system

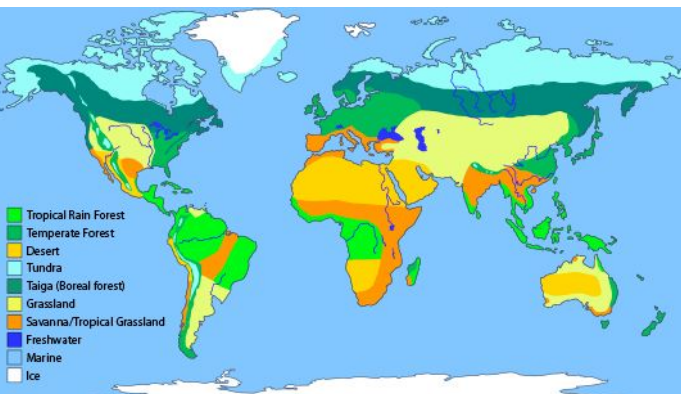


Learn the different elements of a food chain from producer to decomposer.

## Food Chains



Learn the different biomes we have and learn the location of Tropical Rainforests and Deserts

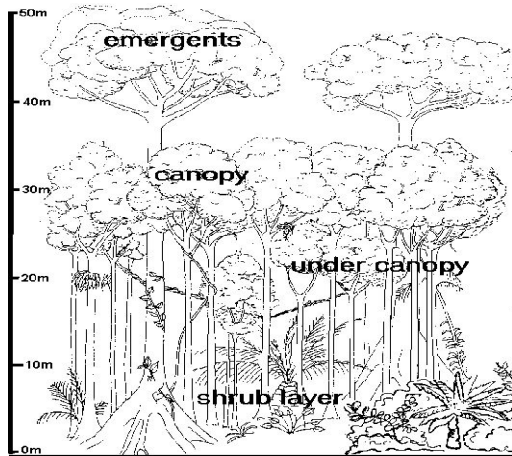


# Year 8: The Living World

Key Term	Definition
Ecosystem	a biological community involving the interaction of living and non-living components that are all dependable on one and other
Biome	A large scale, naturally occurring ecosystem e.g Forest, Desert, Tundra
Environment	The natural surroundings or conditions in which a person, animal or plant lives or operates
Photosynthesis	The process by which green plants use sunlight to turn carbon dioxide and water into food. Often releases oxygen as a by-product.
Food Chain	A series of organisms each dependent on the next as a source of food
Food Web	A system of interlocking food chains
Producer	An organism (usually green vegetation) that produces its own food from sunlight and begins the food chain
Consumer	An animal/organism that gets food and energy from feeding on another animal/organism.
Herbivore	An animal that feeds on plants
Carnivore	An animal that feeds on other animals (meat eaters)
Omnivore	An animal that eats a mixture of plants and other animals
Decomposer	An organism, usually a bacteria or fungus that breaks down and rots organic material (e.g dead plants and animals)
Nutrient Cycle	The process of nutrients being recycled and reused in a system: <b>E.g nutrients in soil are taken up by plants. The plants are then eaten and the nutrients are passed on to the animal. The animal then dies and decomposes. The nutrients are released back into the soil and the cycle starts again.</b>
Biotic Component	The living parts of an ecosystem such as plants and animals
Abiotic Component	The non-living parts of an ecosystem such as climate and soil

# Year 8: The Living World

Learn the structure of a rainforest



Learn the causes and effects of deforestation:

Causes	Effects
<ul style="list-style-type: none"> <li>• Farming</li> <li>• Mining</li> <li>• Logging</li> <li>• Roads</li> <li>• Building Houses</li> <li>• Hydroelectric Power</li> </ul>	<ul style="list-style-type: none"> <li>• Breaks nutrient cycle</li> <li>• Soil erosion</li> <li>• Loss of habitats</li> <li>• Reduced biodiversity</li> <li>• Climate Change</li> <li>• Displaces local tribes</li> </ul>

Learn the causes and effects of desertification:

Causes	Effects
<ul style="list-style-type: none"> <li>• Drought</li> <li>• Increased population</li> <li>• Deforestation</li> <li>• Overgrazing</li> <li>• Overcultivation</li> <li>• Nomadic Farming</li> </ul>	<ul style="list-style-type: none"> <li>• Land Degradation</li> <li>• Soil Erosion</li> <li>• Starvation/Hunger</li> <li>• Lower crop yields</li> </ul>

Developing deserts:

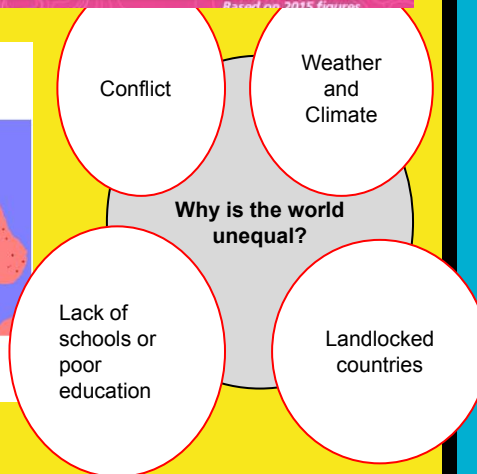
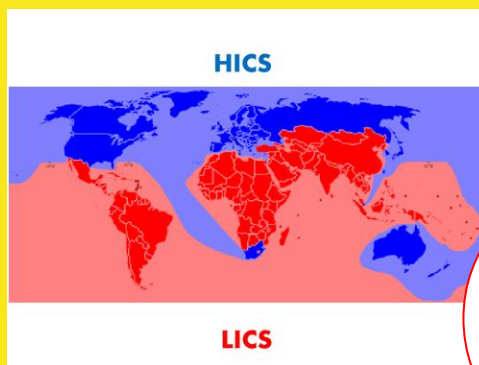
Opportunities	Challenges
<ul style="list-style-type: none"> <li>• Farming</li> <li>• Mining</li> <li>• Tourism</li> <li>• Retirement</li> <li>• Hunting and Gathering</li> </ul>	<ul style="list-style-type: none"> <li>• Climate/Conditions</li> <li>• Lack of infrastructure (roads, cables, water)</li> <li>• High cost</li> <li>• Remote locations</li> <li>• Existing nomadic population</li> </ul>

Key Term	Definition
Vegetation	The collective term for any kind of plants, trees, grasses etc
Leaching	Where nutrients are washed out of exposed soil, usually by heavy rainfall
Deforestation	The act of clearing wide areas of forest/trees
Biodiversity	The variety of plant and animal life in the world, or any given habitat. E.g There is a high level of biodiversity in the Amazon rainforest
Desert	An area with less than 250 mm of rainfall per year, usually desolate with little or no vegetation, typically covered in sand.
Desertification	The process where fertile land becomes desert
Climate Change	A change in global or regional climate patterns. This includes all components of climate such as rainfall, winds, droughts etc, not just temperature!
Agriculture	The practice of farming including the growth of crops and rearing of animals
Soil erosion	The wearing away or over use of soil whereby it becomes less rich in minerals and nutrients
Agroforestry	Agriculture including the growth of trees to stabilise/add nutrients to soil
Arid	Land that is too dry to support the growth of vegetation
Hydroelectric Power	The production of energy using running water to rotate turbines.
Infrastructure	The physical structures and facilities needed for the operation of a society. For example, the infrastructure in a city would include: Buildings, water supply, power supply, transport links/routes, waste management facilities etc



# Year 8 our unequal world

<b>Social Measures of Development</b> Social measures of development include birth rate, death rate and infant mortality. Generally, there is a strong correlation between social measures and economic measures.			
Measure	Germany (HIC)	India (NEE)	Chad (LIC)
			
<b>Birth Rate</b> The number of births per 1,000 people each year	9.0	19.3	43.86
<b>Death Rate</b> The number of deaths per 1,000 people each year	11.3 (high due to ageing population)	7.3 (low due to young population)	13.2
<b>Infant Mortality</b> The number of deaths of infants under one year old per 1,000 births each year	3.3	36.2	76.8
<b>People per Doctor</b> The average number of people per doctor	250	1,380	23,000
<b>Access to Safe Water</b> The percentage of people who have access to clean drinking water	100%	94.1%	50%
<b>Life Expectancy</b> The average number of years that a person can expect to live	81	68	52
<b>Literacy Rates</b> The percentage of people in a population who can read and write	99%	72%	40%



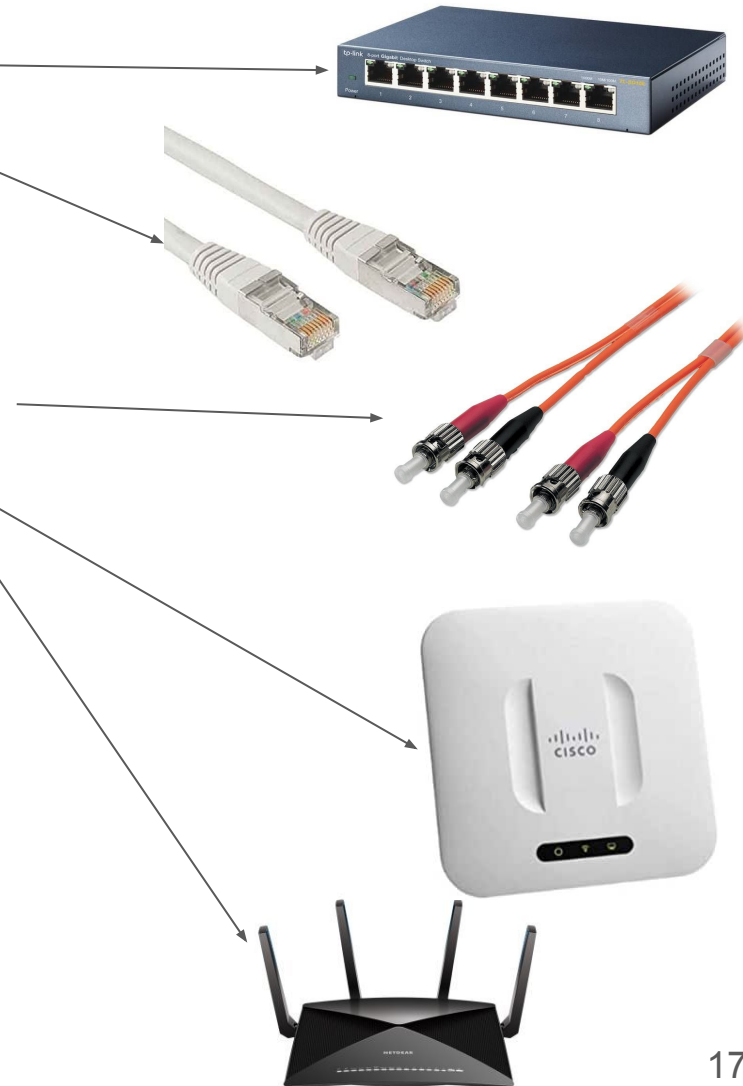
Key Term	Definition
HIC	High income country
LIC	Low income country
NEE	Newly emerging economy
Malnourished	Being weak or ill because of having too little food.
Development	The economic progress of a country and improvements to quality of life.
Development indicator	A measure of a country's level of development.
Literacy rate	How many people can read or write, as a percentage of the population over the age of 15.
Infant mortality rate	The amount of children who die before their first birthday.
GNI	Gross national income; the amount of money a country makes in a year.
resources	Something that has a value or purpose, such as food, water and energy.
Resource insecurity	A lack of resources such as food, water and energy.
Resource security	Plentiful supply of resources like food water and energy.

# ICT & Computer Science

## Networking

### Networking Key Terms

Computer Network	When two or more computers are connected together, allowing them to communicate with each other
Network Switch	A computing device that allows two or more computers to be connected together
Ethernet Cable	A copper cable that is used to connect computers together
Wireless	When computers are connected together without wires. Examples of this include WiFi and 3G
Fibre Optic Cable	A type of cable that can be used to connect computers together that uses light to transfer data rather than electricity. It is extremely fast!
Wireless Access Point	A computing device that allows a computer to connect to a network wirelessly
Router	A device that allows a network to be connected to other networks.
Internet	A network of networks. This involves networks being joined together from all over the world to create the super network we call 'the Internet'
The World Wide Web	This is all of the web pages, videos, images and other resources that are transported across the Internet
Web Server	This is a powerful computer with only one job, to store and allow people to download web pages and other resources that are stored on it using the Internet
Bandwidth	How much data your computer can transfer in 1 second. Usually measured in Megabits







### Web Page Design

Web Page	A document that you can download from the Internet
Website	A set of web pages that are linked together all provided by one person or organisation
Web Authoring Software	Software that allows you to create a web site.
Site map	A list of pages on a web site showing which pages connect to other pages
House style	A set of rules for how all pages on the web site will look to try and keep the same style for each page. E.g. colours used, where the logo is placed, where the navigation bar will be
Master Page	Provides a template for all other pages to follow
Visualisation Diagram	A rough sketch of what something will look like, usually drawn by hand
Version Control	Keeping track of the different changes to a file. Each time the file is changed and saved you would update the version number of a file e.g. version 1.0, version 2.0, version 2.1
Resources of a website	The information that appears on a website. This can be in the form of: <ul style="list-style-type: none"> <li>- Images</li> <li>- Sound</li> <li>- Video</li> <li>- Animation</li> <li>- Text</li> </ul>

### Components of a Website

Navigation bar	A set of buttons or images that a user can click on to go to a different page on a web site
Hyperlink	An image or text that can be clicked on that will navigate you to another page
Buttons	Images that can be clicked on to navigate you to another page
Backgrounds	The colour or image that appears behind everything else on a web page
Banners	A short and wide image at the top of a website. This would usually have the title of the website or the company logo in it
Text	The writing that appears on a web page
Fonts	The style of the text that appears on a web page

### Devices that can be used to access web pages

Laptops and PCs
Smartphones
Tablets
Games Consoles
Smart TVs

# YEAR 8 TACKLING A DESIGN BRIEF

## Karim Rashid

- Karim Rashid is an Egyptian-born and Canadian-raised industrial designer.
- His designs include luxury goods, furniture, lighting, surface design, brand identity and packaging.
- Time magazine has described him as the "most famous industrial designer in all the Americas" and the "Prince of Plastic".
- He is based in New York City, as well as Belgrade, Miami and Mexico.
- He has over 3000 designs in production and has won over 300 awards.



## Design Movement/Art Style

### What is Memphis?

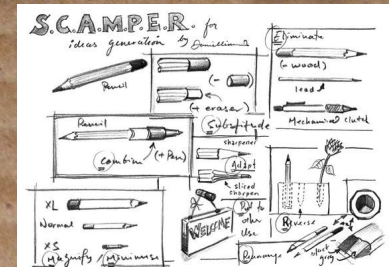
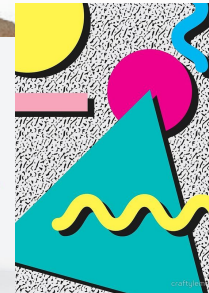
- In the early 80s, Italian designer and architect Ettore Sottsass founded Memphis, a group of artists and designers who became known for their bright and bold furniture design.
- Although many people ridiculed their work, the Memphis group were groundbreaking. Their use of clashing colours, haphazard arrangements and brightly coloured plastic laminate was previously unseen. At the time, objects were usually designed to be functional, not decorative. Memphis changed this with a more creative approach to design, where they poked fun at everyday objects by designing them in a way that was unusual.
- One of the members of the Memphis group, Nathalie Du Pasquier, collaborated with Danish company HAY to create Memphis-esque patterned bags in 2013. A year later, she designed a collection for the fashion company American Apparel. Elsewhere in fashion, Memphis' work has served as the inspiration for fashion collections by designers such as Dior and Missoni.

## Drawing Style/Skill/Technique

A **mind map** is a diagram which shows ideas. Normally, a word is placed in the middle, which is your main theme. From this, words are generated and placed around the outside which are linked to the middle word. Eg Colour - bright - vibrant - primary.

## Theme for the Project - scamper

- S** Substitute - Replace a part of your product/idea with another
- C** Combine  
Combine ideas, processes or products into one more efficient idea
- A** Adapt  
Adapt an existing idea to solve a problem you had before
- M** Modify  
Modify an aspect of your situation or problem, try magnifying or minimising them
- P** Put to another use  
Put current processes or products that were intended for a specific purpose to another use
- E** Eliminate  
Eliminate or simplify an idea to improve it, but also to identify it's most important aspect
- R** Reverse  
Reverse the orientation, direction of a process or product, do things the other way around.



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# YEAR 8 ART

## Alecks Cruz

### 5 facts about the designer

1. Born in Chicago in 1984, Alecks is a self-taught visual artist and graphic designer
2. 2011 when Alecks began gaining local recognition by winning design competitions.
3. He explores the composition of individual letters and the unique beauty that each character has to offer.
4. Alecks took his love for graffiti art and constructs cardboard graffiti pieces that quickly became his trademark.
5. His work shows arrows, barcodes and colours that pop out amid hard angles, straight sides and swooping edges.



## Theme for the Project - Urban Art

Definition:

### Tonal pencil drawing

Whether drawing realistic or abstract subjects, an understanding of tone, the variations of light and shade, is important.

A variety of pencils are required to create a tonal study. The B range is soft and dark and more suitable than H pencils for shading and tonal drawings.



Study the different shades of light and dark in your subject. These tones are dependent on where the light source is. Work on your confidence when applying your tones. It is a common mistake to have little difference between the darkest and lightest areas of a drawing. This can make your results seem flat.

Objects are three dimensional, so the tone will change over the surface. Think about the direction and distance between your marks when shading. Diagonal shading or shading against the grain can flatten the appearance of a form. If shading using cross-hatching, think about the closeness of the crossing lines - the closer the lines, the darker the shading.

## Design Movement/Art Style

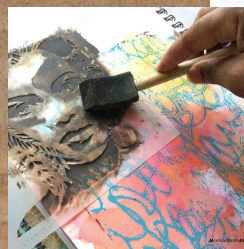
### What is Graffiti?

- Graffiti art as a term refers to images or text painted usually onto buildings, typically using spray paint. Graffiti is marks, scratchings or drawings made on a surface in a public place.
- Graffiti art has its origins in 1970s New York, when young people began to use spray paint and other materials to create images on buildings and on the sides of subway trains. Such graffiti can range from bright graphic images (wildstyle) to the stylised monogram (tag).
- Today, many graffiti are very complicated mixtures of writing and pictures. When done without a property owner's permission it is considered vandalism. Sometimes it is just a person's name or a rude word. Sometimes it is as a public political protest.



## Drawing Style/Skill/Technique

A **stencil** is device for applying a pattern, design, words, etc., to a surface, consisting of a thin sheet of cardboard, metal, or other material from which figures or letters have been cut out, a coloring substance, ink, etc., being rubbed, brushed, or pressed over the sheet, passing through the perforations and onto a surface.



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# YEAR 8 NATURAL FORM

## 5 facts about the Artist

Andy Goldsworthy

- Andy Goldsworthy (born 26 July 1956) is a British sculptor, photographer and environmentalist who produces site-specific sculptures and land art situated in natural and urban settings. He lives and works in Scotland.
- Land art is art that is made directly in the landscape, sculpting the land itself or making structures in the landscape using natural materials such as rocks or twigs.
- He documents extensively through photography
- Most of his work is created outside in remote locations that have been specifically chosen for their personal significance.
- Andy Goldsworthy's sandstone arch is one of his largest sculptures of this type.



## Theme for the Project - Mono Printing

Monoprinting is the process of making a print using 'mark making'.

Mark making is any mark made using any material on any surface, such as:

- pencil on paper
- photoshop brush mark on a screen
- scratch in clay
- paint on a canvas

A mark can be a line, a dot, a scratch, a curve, a thumbprint and so on. Using different tools can help create different thicknesses and types of marks.

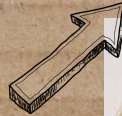
The colour used to create monoprints is usually water-based ink. A roller is used to apply the ink evenly over the a printing sheet. This is usually an acrylic sheet or other washable flat surfaces



## Design Movement/Art Style

### What is the Arts and Crafts Movement?

- Arts and Crafts was a design movement initiated by William Morris in 1861 which aimed to improve the quality of design and make it available to the widest possible audience
- Morris emphasised simple functional design often using florals, natural objects or animals in his work. Wallpapers or fabrics were also made and these were also based on natural motifs, particularly plant forms which were then repeated as flat pattern.



## Drawing Style/Skill/Technique

Botanical illustration is the art of depicting the form, colour, and details of plant species, frequently in watercolor paintings. They must be scientifically accurate but often also have an artistic component and may be printed with a botanical description in books, magazines, and other media or sold as a work of art

1800s

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# YEAR 8 FOOD

## Facts about the designer

### Mary Berry

1. Mary Berry is a British food writer and television presenter.
2. After being encouraged in domestic science classes at school, she studied catering and institutional management at college.
3. She then moved to France at the age of 21 to study at Le Cordon Bleu school, before working in a number of cooking-related jobs.
4. She is best known for her baking skills.
5. Mary Berry has been a judge on The Great British Bake Off.



## Theme for the Project - Afternoon Tea

### Food temperature

#### Microorganisms in food

A selection of rotten food with mouldy growths. Bacteria, mould and yeast are all types of microorganism. They cause food to change, sometimes making food unpalatable.

### Chilling

Dairy produce, cooked foods and raw ingredients should be kept at a temperature between 0°C and 5°C. This will slow the growth of microorganisms, but won't stop it.

### Freezing

Meats, vegetables and ready meals can be frozen. Freezing maintains high standards of freshness and safety. Freezers store products at -18°C or below. Freezing does not kill microorganisms, but will keep them dormant until the food is unfrozen.

### Reheating foods

Food must be reheated to at least 72°C to avoid the risk of food poisoning. Leftovers should be disposed of quickly.

### Packaging functions

The main purposes of food packaging are:

- to preserve the product
- to protect the product from damage
- to make the product more attractive to the consumer
- to make it easier to transport the product

## Design Movement/Art Style

### What is Afternoon Tea

- Afternoon Tea is a tea-related ritual, introduced in Britain in the early 1840s.
- It was introduced in England by Anna, the seventh Duchess of Bedford. The Duchess would become hungry around four o'clock in the afternoon. The evening meal in her household was served fashionably late at eight o'clock, thus leaving a long period of time between lunch and dinner.
- It evolved as a mini meal to stem the hunger and anticipation of an evening meal at 8pm.
- Afternoon Tea is a meal composed of sandwiches (usually cut delicately into 'fingers'), scones with clotted cream and jam, sweet pastries and cakes.
- One renowned place to find a true afternoon tea is the Ritz in London. Their afternoon tea service is in such high demand that bookings generally must be made months in advance.

## Skill/Technique

**Aesthetically pleasing** means to present food in a way that appeals to the consumer - The food should look good, smell good, and appear appealing enough to eat. The decoration and presentation of food is very important

## Drama Keywords

<b>Tableau (x)</b>	A Dramatic Picture. Frozen in time. (Needs to be with 2 or more people.
<b>Narration</b>	To tell a story, information of what is happening to the audience
<b>Mime</b>	Acting out a moment, action, feeling without WORDS.
<b>Split-staging</b>	2 scenes performed at the same time on stage. (BUT the TECHNIQUE of this needs to be used!!!)
<b>Physical Theatre</b>	Use of the body & Movement to show a story, feeling, situation & object.
<b>Structure &amp; Plot</b>	The story (Plot) Scene by scenes & Order of scenes (Structure)
<b>Projection</b>	To speak loudly in for the audience to hear you words.
<b>Expression</b>	Use of Facial Expression to SHOW how you feel.
<b>Tone of Voice</b>	The emotion HEARD in your voice of this character.
<b>Gesture</b>	Body or facial movements of a character during a play.
<b>Body Language</b>	To show your emotion & TOWARDS others in your body.
<b>Wash/Flood</b>	Covers the whole stage in light, allowing the audience to see everything.
<b>Spotlight</b>	A 'Spot'/Circle of Light in a small area- to focus on less actors.

## Year 8 Drama: Unit 5: Script 'Fantastic Mr Fox' Knowledge Organiser (April-July)

### Themes & Context:



You will be recapping your skills from your Script Unit 'Shipwrecked', thinking about your voice, expression, body language & also following the stage directions, blocking where you will stand & how you will say your lines.

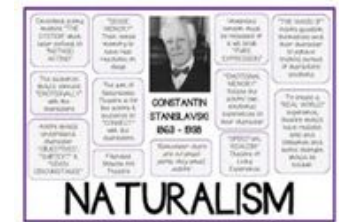
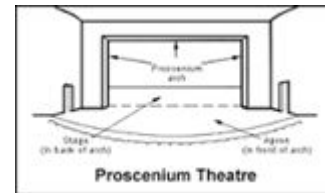
You will be different characters from this story; you will use the technique of Narration to tell the story & applying your knowledge of the characters, through watching clips from Youtube of the story.

Characters: Mrs Fox, Mr Fox & their friends. You will need to explore different voices of these characters, with different gestures (using the clips from Youtube)

You will all be the directors to bring this script to life! Think about how you will set this scene- What will be in stage? A chair? Table? Are you

### Use of Practitioners, Performance Spaces:

**Performance Space:** Proscenium Arch (An arch/frame is created & the audience have one view point.)



**Practitioner:** Stanislavski= He created a method of Acting where you make your character as REAL as possible. "TO BE THE CHARACTER" not yourself. He wanted you to ask yourself questions 'What if I was this character, how would I feel?' 'What would I do?'



# ME - RELIGION AND PREJUDICE

## - KEY TERMS

STEREOTYPE	Oversimplified idea or mental image of a group of people.
TOLERANCE	Respecting the beliefs and practices of others.
COMMUNITY	A collection of people who live and work together to help each other so everyone benefits.
SCAPEGOATING	When you blame or use a particular group as an excuse for a problem.
PREJUDICE	To pre-judge someone without good reason. What a person thinks and feels.
JUSTICE	Bringing about what is right, fair according to the law or making up for a wrong that has been committed.
DISCRIMINATION	To treat someone differently because of a prejudice against them. How a person acts and behaves.
HARMONY	To live peacefully with understanding and respect.
EQUALITY	Where everyone has the same value and importance.
MINORITY	A small group often discriminated against by larger groups.
POSITIVE DISCRIMINATION	Where benefits are given to those who usually face negative discrimination.
RACISM	Treating someone unfairly because of the colour of their skin (race).
SEXISM	Treating someone unfairly because of their gender (male or female).
AGEISM	Treating someone unfairly because of their age.
HOMOPHOBIA	Treating someone unfairly because of their sexual orientation.

## The Parable of the Good Samaritan

On one occasion an expert in the law stood up to test Jesus. "Teacher," he asked, "what must I do to inherit eternal life?" "What is written in the Law?" he replied. "How do you read it?" He answered, "'Love the Lord your God with all your heart and with all your soul and with all your strength and with all your mind'; and, 'Love your neighbour as yourself.'" "You have answered correctly," Jesus replied. "Do this and you will live." But he wanted to justify himself, so he asked Jesus, "And who is my neighbour?" In reply Jesus said: "A man was going down from Jerusalem to Jericho, when he was attacked by robbers. They stripped him of his clothes, beat him and went away, leaving him half dead. **31** A priest happened to be going down the same road, and when he saw the man, he passed by on the other side. **32** So too, a Levite, when he came to the place and saw him, passed by on the other side. But a Samaritan, as he traveled, came where the man was; and when he saw him, he took pity on him. He went to him and bandaged his wounds, pouring on oil and wine. Then he put the man on his own donkey, brought him to an inn and took care of him. The next day he took out two denarii[¢] and gave them to the innkeeper. 'Look after him,' he said, 'and when I return, I will reimburse you for any extra expense you may have.'" "Which of these three do you think was a neighbour to the man who fell into the hands of robbers?" The expert in the law replied, "The one who had mercy on him." Jesus told him, "Go and do likewise."



*'Everyone is made in the image of God'*

*'Love your neighbour as yourself'*

*There is no difference between men and women, Jews and Gentiles we are all one in Christ'*

# ME - Prejudice and Discrimination

## WHAT CAUSES PREJUDICE? HAVING A BAD EXPERIENCE

Having a bad experience with someone might make you think anybody else like them is like that. For example, being, scolded as a child by a grumpy old man, and so thinking that all old people are grumpy.

## PARENTS/UPBRINGING

What we are told/hear at home might make someone prejudiced without even getting a chance to know any differently.

## THE MEDIA

TV, newspapers and so on. Can be biased/prejudiced (taking an idea out of context) and then influences the consumers to feel the same. So somebody might have seen something, believed it and so now are prejudiced.

## IGNORANCE

When you do not have enough detail about something to base an opinion on, yet you think you are able to judge someone.

For example, having a negative opinion about a group of people who you have never met or learned anything about, you do not know them but insult them anyway.

## SCAPEGOATING

When you use others to blame or as an excuse for a problem.

For example, Hitler blamed the Jews for the economic problems in Germany. He used the media and speeches to influence the German people so that they were prepared to kill the Jewish people (who had done nothing wrong).

## Multiculturalism

### 2011 Census

59%: Christianity  
25.1%: No Religion  
4.8% Islam  
1.5% Hinduism  
0.8%: Sikhism  
0.4%: Buddhism  
\*7.2% did not answer the optional question.

**What is the difference between immigration and migration?**

**Why might someone want to migrate to another country?**

**What are the positive aspect of immigration to the UK?**

**What are the negative aspects of immigration to the UK?**

1945-1948 - Work shortages in Europe and labour shortages in Britain following WWII

1950-1971 - Mass immigration continues into the 1950s Many areas including Birmingham, Nottingham and London experienced race riots

## Racism Martin Luther King

He was a black Christian minister.

He opposed racism in the southern states of America in the 1950s and 1960s [white only areas/earned only half of white peoples wages/segregated in public places/many not allowed to vote, lived in ghettos etc]. Discrimination was common.

The Bus Boycott happened after Rosa Parks was arrested for not giving up her seat on a bus to a white person. Led by King who became leader of the Civil Rights movements. A year later buses were desegregated.

**King taught love is the only force capable of transforming an enemy into a friend and so would only use non-violent forms of protest [influence of Gandhi/Jesus] e.g. strikes, sit-ins, marches, speeches etc.**

In 1960 led a march on Washington with a quarter of million people to demand the right to vote, given in 1965.

He was assassinated

## Sexism

Sexual discrimination against women has been normal practice throughout history. Because of their greater strength, men have dominated society. However the past hundred years have seen major challenges and changes to this.

1. Why has sexual discrimination against women been normal practice throughout history?

2. List 4 major changes in women's rights.

3. What laws were introduced which challenged sexism.

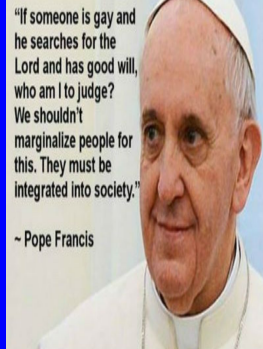
4. In what ways do you think women do have equal rights to men?

5. In what ways do you think women are still treated differently?

## Homophobia

*'You shall not lie with a man as with a woman.....'*

*'Those that do shall be put to death'*  
*Leviticus 20:13*



"If someone is gay and he searches for the Lord and has good will, who am I to judge? We shouldn't marginalize people for this. They must be integrated into society."

~ Pope Francis

Homosexuality became legal in the UK in 1967 as long as all such activity took place in private. Those involved were consenting adults aged 21 or over. However in 1994 the age of consent was reduced to 18 and later still to 16. Gay marriage became legal in the UK in July 2013



# Music - History of Music Timeline

Date	Baroque 1600's	Classical 1700's	Romantic 1800's	20th Century 1900 's
Instruments	Strings Cello Continuo Harpsichord	Piano Clarinet Small orchestra	Piano Lots of percussion Tuba, trombone Double Bassoon	Saxophone Guitar Electronic Music
Composers	Bach Purcell Vivaldi	Mozart Beethoven Schubert	Tchaikovsky Wagner Grieg	Debussy Holst John Williams
Characteristics	Busy Contrapuntal String orchestra	Very structured balanced phrases and structures	Expressive arts inspired music  Nationalistic Music	Minimalist  Impressionist  Film music

# Music - Song Writing

Structure -	Key Words
Verse	Same music, different words
Chorus	Same words and music
Strophic form	Verses sung to music
Through composed	Different music each verse
Bridge/Middle 8	Contrasts & prepares return of the verse
Breakdown	Instrument has a solo
Chords / triads	- Key words
Primary chords/triads	1, 4, 5 - major triads
Secondary chords/triads	2, 3, 6, - minor triads
Root position	Root note is in the bass
1st Inversion	3rd note is in the bass
2nd Inversion	5th note is in the bass

## REPETITION

Repeating something already written down

## MIRROR

## SEQUENCE

## INVERSION

Turning a melody upside down.

## CONJUNCT

A

Stepwise  
Melody

## Examples of Melody



## DING DONG MERRILY ON HIGH



## BALANCE

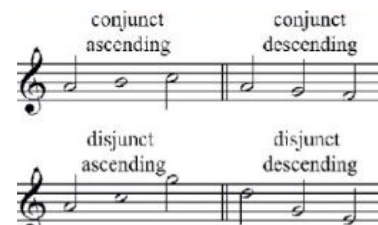
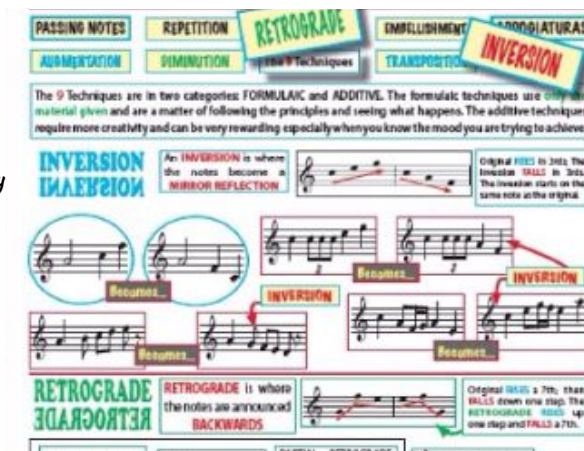
Direction of musical lines and phrases

Music played first forwards then backwards

A short motif restated at a Higher or Lower pitch

## RETROGRADE

Playing the melody backwards



## DISJUNCT

Disjointed melody.  
Gaps between the notes

# Music - African Drumming

*Master Drummer*- the leader who performs the calls during call and response

*Call & Response*-1 person plays/sings, responded to by a group, like a musical conversation

*Rhythm*- notes of different lengths that create a pattern, fitting to a regular beat/ pulse

*Cyclic rhythm*- a rhythm which is repeated over and over again (looped)

*Polyrhythm* - several rhythms performed at the same time. Creates a 'polyphonic' texture.

*Syncopation* - some notes cross the main beat and sound 'early' emphasising the weak 'off beats'

*Improvisation* - music which is created 'on the spot' - not previously prepared

*Bass sound* - striking an African drum in the middle producing a 'hollow' sound

*Tone sound* - striking a drum between the middle and the edge. Sounds 'shallower' / higher pitch



**Tone sound**   **Bass sound**

**Talking  
Drum**



**Djembe**



**Dundun**



*Analyse*- Examine, listen in detail in order to explain, **interpret** the music.

*Appraise* - Assess the quality of work according to criteria

*Dynamics* - volume

*Tempo* - speed

*Texture* - the layers of sounds

*Structure* - the overall management and creation of the different sections in a piece of music

*Binary Form* - a piece of music in 2 different sections (A B)

*Ternary Form* - a piece of music in 3 sections (A B A)

*Rondo Form* - a piece of music in 5 sections (A B A C A)

*Links* - the music played in between 2 main sections of music for the purpose of joining them together





# PE - Athletics

## Field Events

Shot Put

Discus

Javelin

Long Jump

Triple Jump

High Jump

### KEY TERMS

#### Jumps

Run up

Take off

Flight

Landing

#### Throws

Initial stance

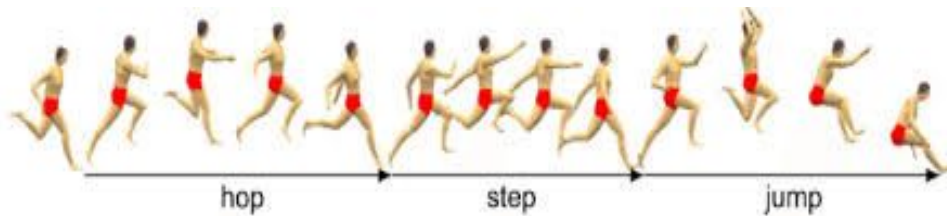
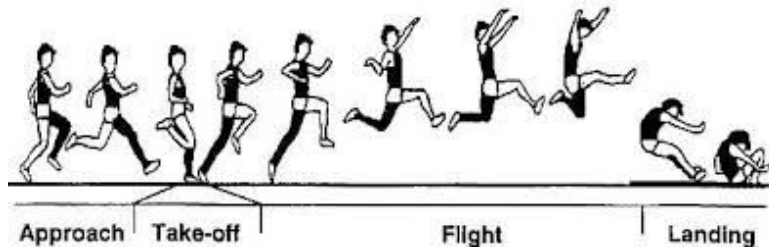
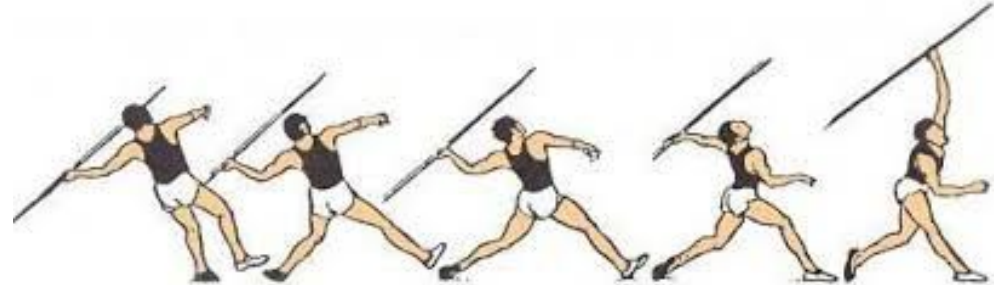
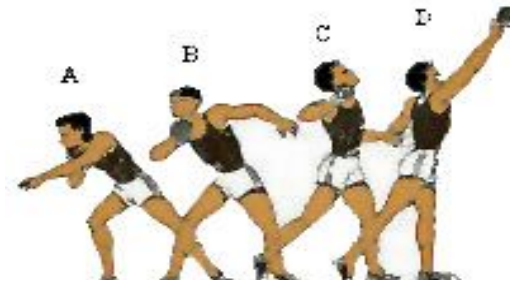
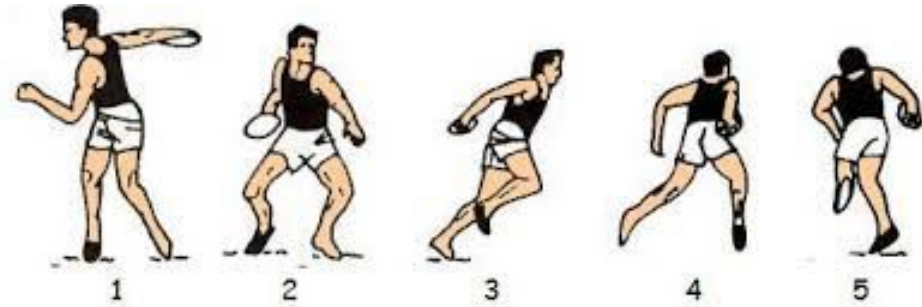
Grip

Preparation

Movement

Release

Recovery



### YOUR ROLE AS AN OFFICIAL

- What do you need to organise when timing on the track?
- What **MUST** you be aware of in throwing events?
- What are the rules when measuring jumps?



# PE - Athletics

## Track Events

### Sprint

100m, 200m, 300m, 400m

### Middle Distance

800m, 1500m, 3000m

### Hurdles

80m (G), 100m (B), 300m  
(G), 400m (B)

## Tasks

1. What is aerobic and anaerobic respiration and how does it apply to athletics?
2. Complete all events up to 1500m and record your time in your green book.
3. Look at the key terms and identify something you could work on to improve your time from year 7.

## KEY TERMS

### Skills / technique

Start

Posture

Pacing

Leg and arm action

Coordination of legs and arms

Stride pattern

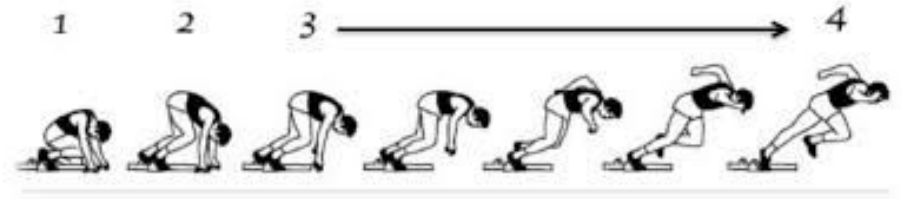
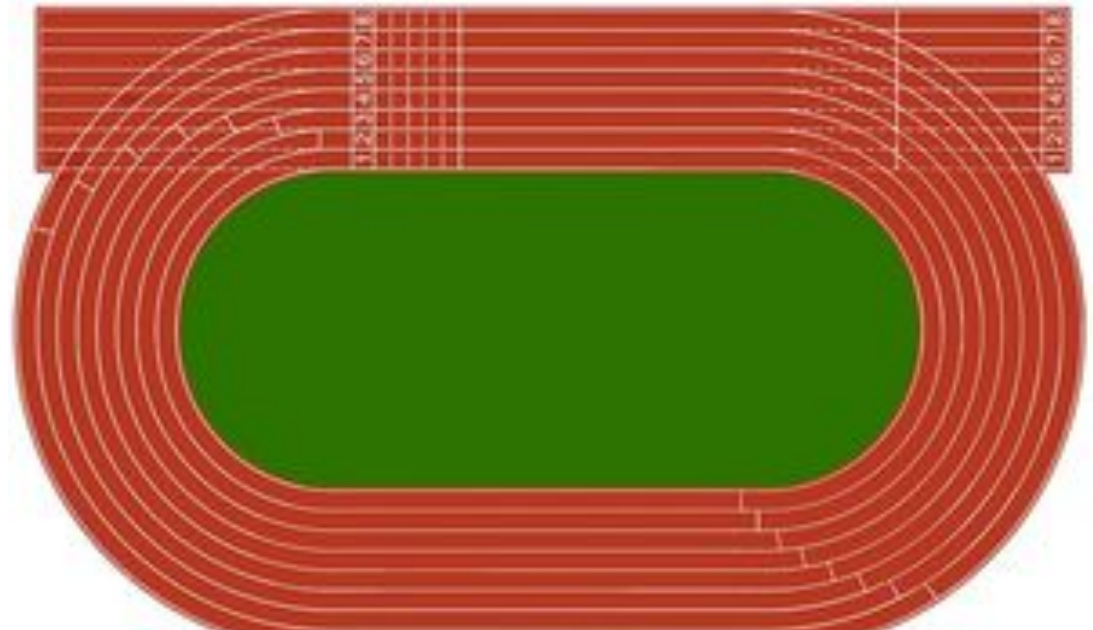


FIG 1



## Literacy and Reading Skills

### Talking Points: ABC

#### Add

Can you add to what has already been discussed?

- I think that...
- In my opinion...
- I would like to add onto this by...
- As well as this, it is important to think about...

#### Build

Can you build on what has been discussed, adding another layer of meaning or a different interpretation?

- Another reason for this is..
- I agree with...because...
- Building onto this...
- Taking this a step further...

#### Challenge

Can you challenge what has been discussed, arguing against the perception or opinion?

- I disagree with...because...
- I partially agree with...because...
- From another perspective, it could be argued that...
- I would challenge this because...
- Although I can see why ...thinks...I disagree with...

### Commonly Misspelled Words

accommodation	disappearance	preparation	skilful
argument	disappoint	tomorrow	separate
definitely	embarrassment	receipt	possession
believe	development	beautiful	environment
business	happened	beginning	fulfil
surprise	receive	sincerely	necessary

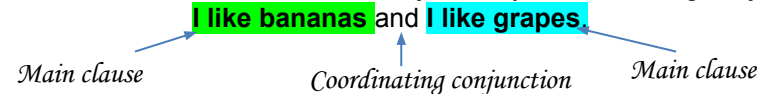
## Word Classes

<b>Adverb</b>	<b>Adverbs</b> describe a verb. The boy ran <b>quickly</b>
<b>Adverbial</b>	<b>Adverbials</b> explain how, where or why something happened. We stayed awake <b>all night long</b>
<b>Fronted adverbial</b>	<b>Fronted adverbials</b> are adverbials moved to the front of the sentences before the verb. <b>As fast as I could</b> , I ran away.
<b>Prepositions</b>	<b>Prepositions</b> tell you where or when something is in relation to something else. The dog sat <b>under</b> the table
<b>Determiners</b>	<b>Determiners</b> are used with nouns to make the noun clearer. I like <b>my</b> car. There are <b>four</b> people in the room.
<b>Pronouns</b>	<b>Pronouns</b> take the place of a noun. <b>They</b> swam in the sea. <b>I</b> love reading
<b>Possessive pronouns</b>	<b>Possessive pronouns</b> are used to show ownership of a person or thing. The man strummed <b>his</b> guitar while <b>his</b> friend played <b>her</b> keyboard.

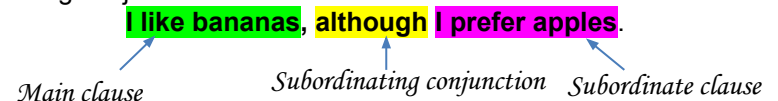
**Simple sentence:** a single main clause. **I like bananas.**

*Main clause*

**Compound sentence:** two main clauses joined by a coordinating conjunction.



**Complex sentence:** main clause and a subordinate clause using a subordinating conjunction.



## Etymology

**Etymology**- the origin of a word and the historical development of its meaning.

For example **salary (Origin: Latin)**. The word salary comes from the Latin salarium; the payment for salt.

As far back as the Egyptian Empire, laborers were paid with salt that they could use to preserve their food. The Roman Empire continued using this form of payment and it took on the name salary for that which was given to workers at the end of the working month.

## Common Errors

- **Lose** is the opposite of win
- **Loose** is when something is not tight.
- **Know** is to be well informed.
- **No** means not at all.
- **Now** means happening immediately
- **Are** is the present tense form of the verb to be
- **Our** is a possessive form of we.
- **Weather** - snow, rain wind etc
- **Whether** - I'm going whether you like it or not!
- **Accept** is a verb meaning to receive
- **Except** is a preposition meaning to exclude
- **Affect** is a verb meaning to bring influence or change  
e.g. The girl was affected by the car crash.
- **Effect** is a noun e.g. The sound effects were amazing.

A **prefix** is a group of letters placed before a **root** word that change its meaning.

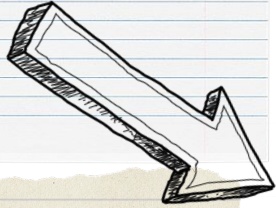
e.g. **submarine**

## Common Prefixes:

	Prefix	Meaning	Example
1	<b>Anti-</b>	Against	<b><u>Anti</u></b> social
2	<b>De-</b>	Opposite	<b><u>De</u></b> motivated
3	<b>Un-</b>	Not	<b><u>Un</u></b> happy
4	<b>Dis-</b>	Not, opposite of	<b><u>Dis</u></b> agree
5	<b>Im-</b>	Not	<b><u>Im</u></b> polite
6	<b>Mid-</b>	Middle	<b><u>Mid</u></b> day
7	<b>Mis-</b>	Wrongly	<b><u>Mis</u></b> understand
8	<b>Over-</b>	Over	<b><u>Over</u></b> enthusiastic
9	<b>Pre-</b>	Before	<b><u>Pre</u></b> historic
10	<b>Re-</b>	Again	<b><u>Re</u></b> write



# ACCELERATION THROUGH DEPTH...



## ENGLISH

- Research the writer's context and explain the links between this and the writer's purpose.
- Can you make links between this text and another text you have studied?
- Can you change any words in your writing today using your knowledge organiser?
- Turn the text, or its key ideas, into another form (poem, article, letter, speech, short story, etc)

## MATHS:

- Please go to the NRICH postcards and select a problem to solve.

## SCIENCE:

- **Content:** Using the topics you have studied so far in science, can you make any links? What understanding from other topics do you need to have for the topic you are studying now? Can you do this across biology, chemistry and physics?
- **Context:** Looking at what you have been covering during the topic you have been covering, can you put the science into a real life context? When would what you understand be important to someone's life? Can you link it to any careers and jobs?
- **Practical skills:** Look at a set of data you have collected in a recent practical. Describe and explain the trend in your data in as much detail as you can. How could you make your data more repeatable and reproducible? Can you find any errors, systematic or random? How could you reduce the error? Is your data accurate and valid? How could you make the data more accurate and improve the validity.

## PE:

- What components of fitness apply to your sport and what fitness tests would you do to test them?

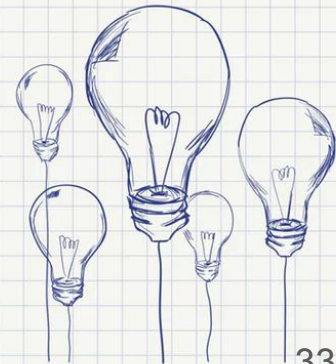
## GEOGRAPHY

- The answer is Geography. What are 5 possible questions?
- How do you think Geography in school will change over the next 10 years with the development of new technology?
- List words associated with geography (A-Z)

## MFL:

Research how to form the present tense in French either by using the link <https://youtu.be/p1RfmaoYZFI> or asking your teacher for a grammar sheet.

- Create a help sheet for other students to explain the rules with step by step instructions.
- Design a worksheet with an answer sheet which can be used in other French classes.





## HISTORY:

- Strengthen your evidence; read through your work, can you swap any words for key terms.
- What parallels are there between this topic and what you have previously studied?
- Outline an idea of how could you teach this topic in a different way to either younger, peers or older students?
- Identify how this topic links to any British Values:

*Democracy.*

*Individual liberty*

*Mutual respect*

*Tolerance of those of different faiths & beliefs.*

## ART/DESIGN

- Explore the work of an artist or designer linked to the Art or Design movement on your KO page by producing a mini artist study. (Visit **the Tate** website)
- Investigate 3 different art, modelling or textile techniques. How could you apply these to an end piece?
- Create your own project for a class to study using the current theme of your work.
- Visit **the Tate** website and complete one of the activities they've created.

## MUSIC:

- Demonstrate and improve your depth of knowledge and understanding by reading through your written work and swapping normal words for more technical 'musical' words and Italian terms.
- In 'listening library' tasks - extra to the written criteria requested - try and direct your listening to as many of the other different elements of music as well, and include comments and information about them also. Again use Italian terms where possible.

## ME:

- Include two quotations from scripture in your answer.
- Create 5 questions that your teacher might ask you about what you have learnt about today.
- Transform today's learning outcomes into questions.
- Select 5 key terms that you have used in your work today.
- Create a sentence using all of these terms.
- Based on what you have learnt today, what do you think that you should study next lesson and why?
- Produce a summary of what you have learnt today. When done, reduce it to either a single sentence of three bullet points

## ICT:

- Learning programming is about trial and error, experimenting and trying different projects of your own. Try a project of your own or use one of the websites below to give you some inspiration. Attempt to put into practice the techniques learnt in your Computer Science lesson and extend what you can do by using online resources, there are loads available if you carry out a quick Google search.

MicroPy <https://bit.ly/2ychHCi>

## DRAMA:

- Discuss and Write the Changes that you would have made to your performance piece, if you could create and perform this again. (Write about the Drama Skills and Techniques used in performance)
- Discuss and Write the audience response and effect to your performance piece. How did they feel? What feedback did they give? Did your story, characters, intention for your piece come through to them?
- After performing your piece and if you could chose a different Performance Space, what would it be? Describe the performance space, what viewpoints would your audience have? How would a relationship between the actor and audience be created?



# Maths Block 5 & 6

## Area of Polygons

### Circumference Of a Circle Area of a Circle



$$C = \pi d$$

Cherry Pie, Delicious!



$$A = \pi r^2$$

Apple Pies are too!

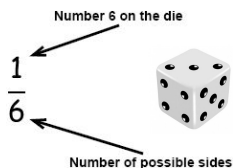
## Probability

Probability is the likelihood or chance of something happening.

It is shown as either a **fraction - decimal - %**

### Probability of an event

Number of ways it can happen  
Total number of outcomes



### Probability is between 0 and 1

- 0 = impossible
- 1 = certain

Probability of outcome A is shown as **P(A)**

**P(Red Queen)** = probability of picking a Red Queen from a pack of cards.

Rectangle

height

base

**area = base x height**

Triangle

height

base

$\frac{1}{2}$  base x perpendicular height

Parallelogram

Area = Base x Perpendicular Height  
Area = bh

Trapezium

Area =  $\frac{1}{2}(a + b)h$

**Experiment:** Repeatable procedure -rolling dice x 10

**Outcome:** Possible result of an experiment

**Mutually Exclusive:** Can't happen at the same time

**Sample Space:** All possible outcomes of an experiment shown as a list, table, tree diagram

(H – Head, T – Tail)

### Two Coins

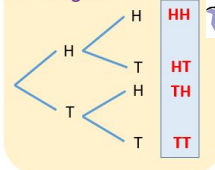
List:

HH HT TH TT

Table:

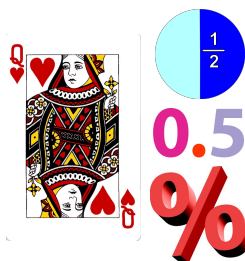
	H	T
H	HH	HT
T	TH	TT

Tree Diagram:



The sample space is {HH, HT, TH, TT}

**In probability**  
or = add and = multiply



## Units of Measure

### Length

1 km = 1000 m

1 m = 100 cm

1 m = 1000 mm

1 cm = 10 mm

### Mass

1 tonne = 1000 kg

1 kg = 1000 g

1 g = 1000 mg

### Capacity and Volume

1 litre = 1000 ml

1 cl = 10 ml

1 m<sup>3</sup> = 1000 litres

1 cm<sup>3</sup> = 1 ml

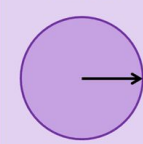
**Kilo-** meaning one thousand  
**Centi-** meaning one hundredth  
**Milli-** meaning one thousandth  
**Micro-** meaning one millionth

1 foot = 12 inches  
1 yard = 3 feet  
1 mile = 1760 yards  
1 pound = 16 ounces  
1 stone = 14 pounds  
1 ton = 160 stones

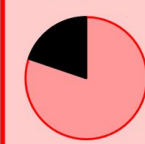
Metric	Imperial
2.5 cm	1 inch
8 km	5 miles
1 m	39 inches
30 cm	1 foot
1 kg	2.2 pounds
4.5 litres	1 gallon
1 litre	1.75 pints

## Parts of a Circle

### Radius



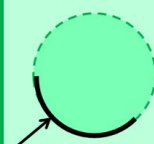
### Sector



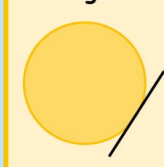
### Segment



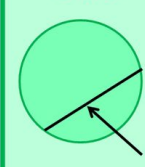
### Arc



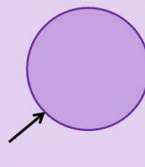
### Tangent



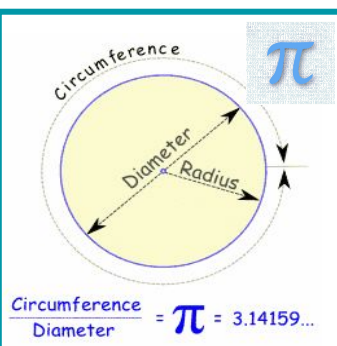
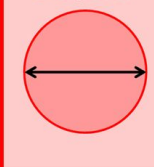
### Chord



### Circumference

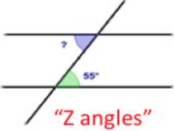
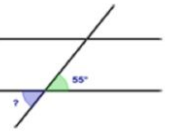

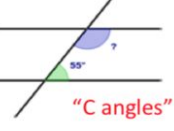
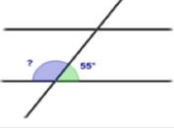


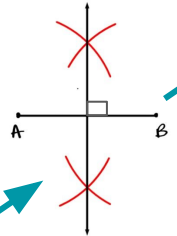
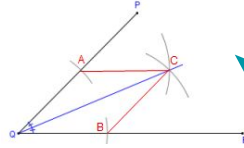
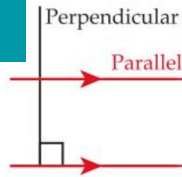
### Diameter



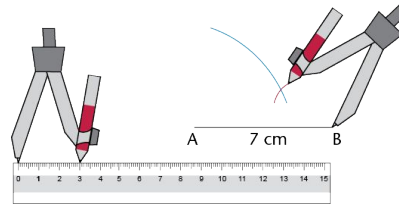


# Maths Angles - Parallel Lines

	Relationship	Properties
	Alternate Angles	Equal
	Opposite Angles	Equal
	Corresponding Angles	Equal
	Co-interior Angles	Add up to 180°
	Angles on a straight line	Add up to 180°



Place compass point on A, open compass to over ½ way and draw an arc top & bottom. Repeat with B. Draw a line that passes through both points where arcs cross.



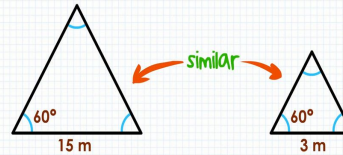
**Construct** = Draw using: ruler & compass or protractor

**Angle Bisector** = a line that cuts an angle in half

**Perpendicular Bisector** = a line at 90° to another that cuts it in half

## Similar Triangles

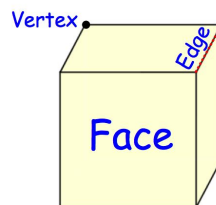
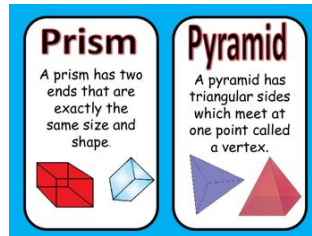
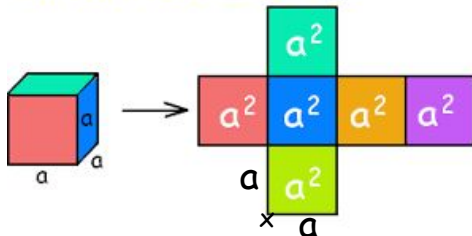
- Proportional to each other
- Have the same interior angles
- The only difference is the length of their sides



## Surface Area

To calculate / work out the surface area of a cuboid you work out the area of each face and add them together.

Surface area of a cube =  $6 \times (a \times a) = 6a^2$



**Volume** is measured in units cubed:  $\text{mm}^3$ ,  $\text{cm}^3$ ,  $\text{m}^3$  etc.

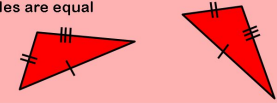
**Area** is measured in units squared:  $\text{mm}^2$ ,  $\text{cm}^2$ ,  $\text{m}^2$  etc.

**Capacity** amount of liquid something can hold/ volume of liquid - measured in litres/ ml

## Congruent Triangles

are identical triangles - you can prove it if:

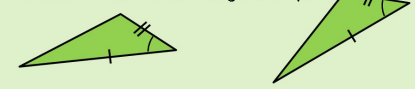
**SSS:** Three sides are equal



**ASA:** Two angles and the included side are equal



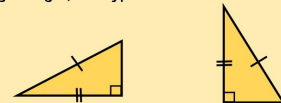
**SAS:** Two sides and the included angle are equal



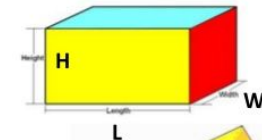
**AAS:** Two angles and an opposite side are equal



**RHS:** A right angle, the hypotenuse and another side are equal



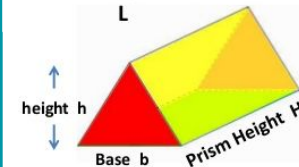
## Volume



$$V = L \times W \times H$$

or

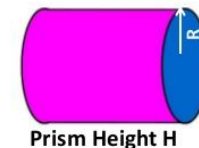
$$V = LWH$$



$$V = \frac{1}{2} \times b \times h \times H$$

or

$$V = \frac{1}{2}bhH$$



$$V = \pi \times R \times R \times H$$

or

$$V = \pi R^2 H$$