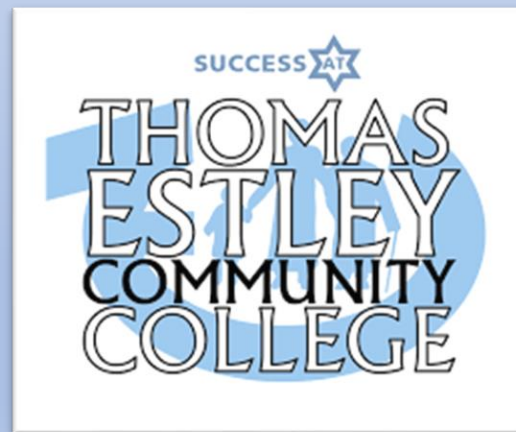


Thomas Estley Community College

Year 9 Autumn Term

Knowledge Organiser



What are Knowledge Organisers?

A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these vary according to the subject being taught.

It will be the students responsibility to keep the knowledge organisers safe and refer to them over the whole academic year.

How will these be used at Thomas Estley?

At Key stage 3, you will be given a knowledge organiser each term. You need to keep these safe in your learning packs that you were provided with at the start of the academic year.

Your subject teachers will use these in a variety of ways, for both class work, remote learning opportunities and homework. They will be used to help with revision for class quizzes and retrieval practice activities. They will also be used for flip learning activities, where subject teachers will ask you to learn some information and then go in to it in more detail in class.



Revision Tips and Tricks!

Record It

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want!



Teach it!

Teach someone your key facts and then get them to test you, or even test them!



Flash Cards



Flash Cards

Write the key word or date on one side and the explanation on the other. Test your memory by asking someone to quiz you on either side.

Hide and Seek

Read through your knowledge organiser, put it down and try and write out as much as you can remember. Then keep adding to it until it's full!



Back to front

Write down the answers and then write out what the questions the teacher may ask to get those answers.

BACK
TO
FRONT



Read Aloud

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts – it really helps you remember!



Sketch it

Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.

Post its

Using a pack of post-it notes, write out as many of the keywords or dates as you can remember in only 1 minute!

PRACTICE
MAKES
PERFECT

Practice!

Some find they remember by simply writing the facts over and over again.

The Elements of Music – Knowledge Organiser

Describing Music using MAD T-SHIRT (The Elements of Music)

KS3 MUSIC
(Eduqas)



Melody

The main tune



High or Low **Pitch**.
Ascending or Descending.
Wide or Narrow range.
Steps (**Conjunct**) or Leaps (**Disjunct**).
Major, Minor, Blues, Chromatic.

Articulation

How the notes are played or sung



Staccato – Short and detached (.)
Legato – Smoothly and connected (slur)
Accent – Emphasised and Stressed (>)
Strings: Pizzicato (plucked) or *Arco* (bow)

Dynamics

The volume of a piece of music

pp p mp mf f ff

Pianissimo, Piano, Mezzo Piano, Mezzo Forte, Forte, Fortissimo.
Changes in Dynamics –
Crescendo – gradually getting louder;
Diminuendo/Decrescendo – gradually getting softer.

Texture

The layers of sound and how they fit together

Thick/Dense/Layered – lots of instruments or melodies.
Thin/Sparse/Solo – single or a few instruments or melodies.
Drone, Pedal Note, Call and Response, Countermelody.



Structure and Form

How a piece of music is organised and ordered into different sections



Binary (AB), Ternary (ABA), Rondo (ABACADA), Ritornello, Popular Song, Variations (A¹A²A³A⁴), 12 Bar Blues.

Harmony

The chords used in a piece



Major or minor key, Triads, Primary Chords (I, IV and V), Chord Sequence. Harmonic Rhythm – do the chords change quickly or slowly?

Instruments

Each instrument and voice have a unique sound called its

Timbre or Sonority



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

Rhythm

The pattern of notes against the beat



Duration – Long or Short Notes.
Pulse, Beat. Note Values – Semibreve, Minim, Crotchet, Quaver and Rests. **Time Signature, Ostinato, Syncopation, Dotted Rhythms, Cross Rhythms, Polyrhythms.**

Tempo

The speed of the music



Fast – Allegro, Vivace, Presto
Moderate – Moderato
Slow – Largo, Andante, Adagio
Accelerando -gradually getting faster; **Rallentando** – gradually getting slower; **Rubato**.

ZARA



In Year 9 Textiles, we design and make a bag for a client and target audience. It is important to consider their needs and wants throughout the design process. This helps us create a product that is fit for purpose, attractive, and useful for the person who will use it.

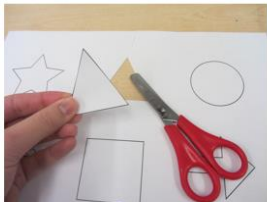
When designing our bag, we need to think about factors such as its **size, function, style, colours, materials**, and any special features the client may require. By understanding our **client** and **target audience**, we can make design decisions that meet their expectations and create a successful final product.

Primary Research: Research carried out by yourself

Secondary Research: Research carried out by others

Textiles Year 9

Appliqué



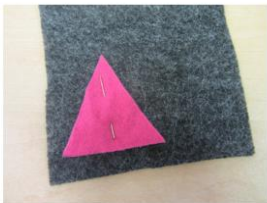
Cut out your pattern piece using paper scissors.



Use a pin to attach your pattern to the fabric.



Cut around your pattern and once complete remove your pin.



Use a pin to attach your shape to your larger piece of fabric.



Choose your stitch and begin to sew around the edges of your shape.

Remember to knot your thread at the end and start on the back!



When you are finished make sure you are on the back of the fabric and push your needle on and out of the fabric.

Then before you pull tight put your needle through the loop. Repeat this a couple of times and cut the thread.

Sustainable Design

Designing and making products in a way that reduces harm to the environment. This includes using eco-friendly materials, reducing waste, recycling, and creating products that last a long time.

Product Analysis

The process of examining and evaluating a product to understand how it works, who it is for, and how well it meets its purpose. This includes looking at its materials, appearance, function, quality, and cost.

Ergonomic Design

Designing products so they are comfortable, safe, and easy for people to use. In textiles, this might involve creating clothing that fits well, allows movement, and feels comfortable to wear.

Modelling

Creating a sample, prototype, or mock-up of a product before making the final version. Models help designers test ideas, check sizes, and identify improvements.

Specification

A detailed list of requirements that a product must meet. A specification may include the size, materials, function, target user, appearance, cost, and safety requirements of the product.

Tie Dye

Tie-dye is a colourful way of dyeing fabric by tying, folding, or twisting it, and then adding dye. This creates fun patterns like swirls, stripes, or circles. People across the world have used similar techniques for centuries.

- **India:** Over **5,000 years ago**, people used a method called *Bandhani*, tying small knots in fabric to create dots and patterns.
- **Japan:** The Japanese technique *Shibori* (from the 8th century) uses folding, twisting, and stitching to make beautiful indigo-dyed cloth.
- **Africa:** In places like Nigeria, artists used **indigo dye** and resist-dyeing to make patterned clothes with deep cultural meanings.



¿Qué estudias? What do you study	Estudio I study Estudia He/she studies Estudiamos We study	(el) arte dramático/el teatro – drama (el) dibujo – art (el) español – Spanish (el) inglés – English (el) educación física – pe (el) francés – French (la) geografía – geography (la) historia – history (la) informática – computing (la) religión – RE (la) tecnología – DT	porque because	School subjects and opinions	
					me interesa – interests me me aburre - bores me me fascina – fascinates me me importa – is important to me
¿Qué asignatura te gusta? Which subject do you like? ¿Qué asignatura prefieres? Which subject do you prefer	Mi asignatura preferida es... - My favourite subject is... Me chifla – I’m crazy about Me gusta – I like Me interesa – <i>I’m interested in</i> Prefiero – I prefer		porque es because it is		práctico/ a -practical creativo/ a – creative lógico /a – logical aburrido /a – boring fácil - easy útil – useful interesante interesting difícil – difficult inútil – not useful
El año proximo El año que viene Next year	voy a continuar con I’m going to continue with voy a estudiar I’m going to study	(las) matemáticas – maths (las) ciencias – science (las) lenguas/los idiomas – languages	porque son Because it is		prácticos/ as -practical creativos/ as – creative lógicos /as – logical fáciles - easy útiles – useful Interesantes interesting difíciles – difficult

Normalmente - normally A menudo – often El lunes – On Monday El martes – On Tuesday El miércoles – On Wednesday El Jueves – On thursday El Viernes – on Friday	a las ocho y media - At 8.30 a las nueve y media – At 9.30 a las diez y media – At 10.30 a las once menos diez – At 10.50 a las once y cuarto – At 11.15 a las doce y cuarto At 12.15 a la una y cuarto – At 1.15 a las dos menos cinco – At 1.55 a las tres menos cinco - At 2.55	estudio I study estudia He/she studies estudiamos We study	arte dramático/el teatro – drama dibujo – art español – Spanish inglés – English educación física – pe francés – French geografía – geography historia – history informática – computing religión – RE tecnología – DT	Primero Firstly segundo Secondly luego Then después After finalmente finally
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Gramática

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 - After opinions we do use **el/ la / los / las...** e.g. Me gusta **las** ciencias
- With ‘voy a continuar con’ we DO use the article**

Future tense

Use the correct part of the verb IR (to go)

Voy (I am going to)

Va (he/she is going to)

Vamos (we are going to)



a



Infinitive

estudiar

continuar con

Unit 16

Talking about my daily routine

A eso de... <i>[around...]</i> A... <i>[at]</i> ...las cinco <i>[5]</i> ...las seis <i>[6]</i> ...las siete <i>[7]</i> ...las ocho y cinco <i>[8.05]</i> ...las ocho y diez <i>[8.10]</i> ...las ocho y cuarto <i>[8.15]</i> ...las ocho y veinte <i>[8.20]</i> ...las ocho y veinticinco <i>[8.25]</i> ...las ocho y media <i>[8.30]</i> ...las ocho y treinta y cinco <i>[8.35]</i> ...las nueve menos veinte <i>[8.40]</i> ...las nueve menos cuarto <i>[8.45]</i> ...las nueve menos diez <i>[8.50]</i> ...las nueve menos cinco <i>[8.55]</i> A mediodía <i>[12 pm]</i> A medianoche <i>[12 am]</i>	de la mañana <i>[in the morning]</i> de la tarde <i>[in the evening]</i> de la noche <i>[at night]</i>	almuerzo <i>[I have lunch]</i> ceno <i>[I have dinner]</i> desayuno <i>[I have breakfast]</i> descanso <i>[I rest]</i> hago mis deberes <i>[I do my homework]</i> juego en el ordenador <i>[I play on the computer]</i> me acuesto <i>[I go to bed]</i> me lavo los dientes <i>[I brush my teeth]</i> me levanto <i>[I get up]</i> me visto <i>[I get dressed]</i> salgo de casa <i>[I leave my house]</i> voy al colegio en autobús <i>[I go to school by bus]</i> veo la tele <i>[I watch the telly]</i> vuelvo a casa <i>[I go back home]</i>	luego... <i>[then]</i> después... <i>[after]</i> finalmente... <i>[finally]</i>
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Year 9 Social Studies - Autumn Term

Drugs

Key Words



Support
Evil
Drugs
Illegal
Legal
Prescription
Crime
Motivation
Punishment
Addiction

Key Questions



- What is the definition of a drug?
- Why do people take drugs?
- What are the consequences of taking drugs?
- What support is there for people with addictions to drugs?
- What is the impact of taking drugs on the individual?
- What is the impact of illegal drugs on wider society?
- What are the rights and wrongs of legalising all drugs?

Drug Classifications

How are drugs classified?

- In the UK, controlled drugs are grouped into three categories based on the harm they pose to individuals and society, which dictates the severity of legal penalties
- Class A: Considered the most dangerous and addictive, carrying the harshest penalties. Examples include Heroin, Cocaine, Ecstasy, and LSD.
- Class B: Still highly harmful and addictive, but assessed as less dangerous than Class A. Examples include Cannabis, Ketamine, and Amphetamines.
- Class C: Lower risk/harm, but still tightly controlled. Examples include Anabolic Steroids and Nitrous Oxide.

Types of Drugs



Legal

- Paracetamol
- Caffeine
- Alcohol
- Nicotine
- Sugar

Illegal

- Cannabis
- Heroin
- Cocaine
- Ecstasy
- Ketamine



Portugal - A Case Study



Is legalising all drugs the way to stop them?

- Portugal decriminalised all drug use, including Cannabis, Cocaine and Heroin, in an experiment that inspired similar efforts elsewhere.
- The proportion of prisoners sentenced for drugs has fallen from 40% to 15% but now police are blaming a spike in the number of people who use drugs, for a rise in crime.

Energy

- Energy** is needed to make things happen
- It is measured in **joules** or **kilojoules**
- The **law of conservation of energy** says that energy cannot be created or destroyed, only transferred
- This means that the total energy before a change is always equal to the total energy after a change

Energy can be in different energy **stores**, including:

- Chemical** – to do with food, fuels and batteries
- Thermal** – to do with hot objects
- Kinetic** – to do with moving objects
- Gravitational potential** – to do with the position in a gravitational field
- Elastic potential** – to do with changing shape, squashing and stretching

Speed

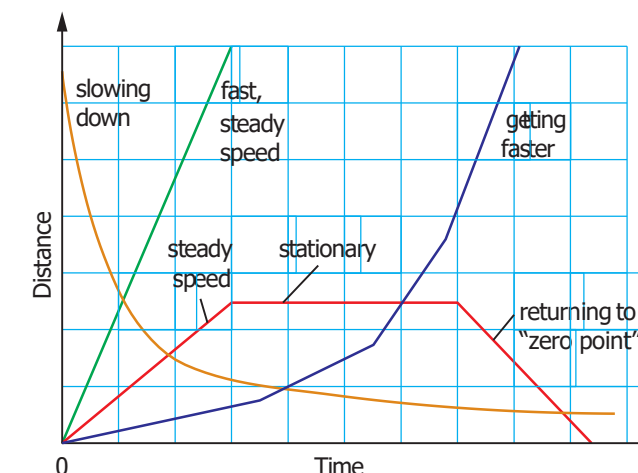
- Speed** is a measure of how quickly or slowly that something is moving
- We measure speed in meters per second (m/s), this means that distance must be in meters and time must be in seconds
- We calculate speed with the following formula:

$$\text{speed (m/s)} = \frac{\text{distance travelled (m)}}{\text{time taken (s)}}$$

- Relative motion** compares how quickly one object is moving compared to another
- If both objects are moving at the same speed, they are not changing position in comparison to one another, meaning that their relative speed is zero

Distance-time graphs

- Distance-time graphs** tell the story of a journey, they show how much distance has been covered in a certain period of time



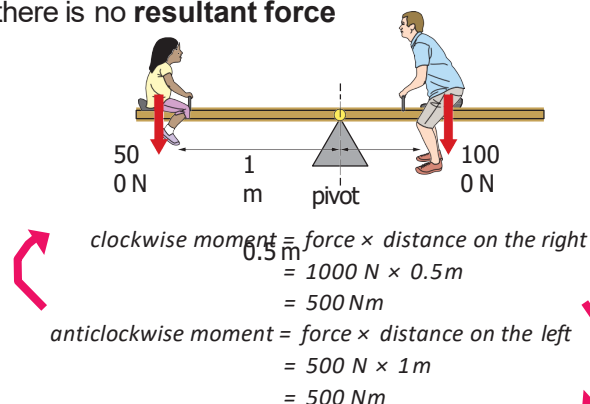
- To find the average speed, the total distance must be divided by the total time

Turning forces

- A **moment** is the turning effect of a force, it is measured in Newton meters
- We can calculate a moment with the equation:

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

- The size of the moment will increase as the distance from the **pivot** or the size of the force increases
- When an object, such as a seesaw is balanced, the clockwise and the anticlockwise moments will be equal and opposite, which is known as **equilibrium**
- When forces are equal and opposite to each other, there is no **resultant force**



Power and energy

- Power** is a measure of how much energy is transferred per second
- Power is measured in **watts (W)**
- Each appliance has its own power rating to tell us how quickly it uses energy
- We can calculate power with the equation:

$$\text{power (W)} = \frac{\text{energy (J)}}{\text{time (s)}}$$

Energy Dissipation

- We say that energy is **dissipated** when it is transferred to a nonuseful store, it cannot be used for what it was intended for
- Energy can be wasted through friction, heating up components or heating the surroundings
- Efficiency** is a measure of how much of the energy has been used in a useful way, we can calculate this with the equation:
- Efficiency (%) = $\frac{\text{useful energy output}}{\text{energy input}} \times 100$

Gas pressure

- Gas pressure** is caused by the particles of a gas colliding with the wall of the container which they are in
- The more often that the particles collide with the wall of the container, the higher the pressure of the gas will be
- Gas pressure can be increased by:
 - Heating the gas so the particles move more quickly and collide with the container with a higher energy
 - Compressing the gas so there are the same amount of particles within a smaller volume meaning that there are more collisions
 - Increasing the amount of particles within the same volume so there are more collisions
- Atmospheric pressure** is the pressure which the air exerts on you all of the time, nearer the ground there are more particles weighing down on you so the pressure is greater
- The higher you go, the smaller the atmospheric pressure, this is because there will be less particles weighing down on you

Pressure in solids

- The pressure which is exerted on a solid is known as **stress**
- The greater the area over which the force is exerted over, the lower the pressure, this is why snowshoes have a large area to prevent you sinking into the snow
- Pressure** can be calculated using the following equation:

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

Pressure in liquids

- Liquids are **incompressible**
- The particles in a liquid are already touching, meaning that there is little space between them to compress
- Liquids will transfer the pressure applied to them, this is seen in hydraulic machines
- As the ocean gets deeper, the pressure will increase, this is because the pressure depends on the weight of the water above
- The greater the number of water molecules above, the higher the pressure will be

Key terms

Make sure you can write definitions for these key terms.

Acceleration, air resistance, atmospheric pressure, balanced, contact force, deceleration, distance-time graph, drag, equilibrium, field force, friction, gas pressure, gravity, gravitational force, interaction pair, kilograms, mass, moment, Newton, non-contact, pivot, pull, push, pressure, relative motion, resultant force, speed, unbalanced, weight

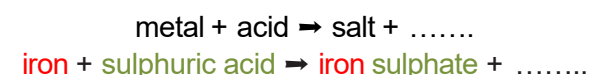
Salts

Salts are substances which are formed when an acid reacts with a metal or metal compound. The name of the salt produced depends on the metal and the acid involved in the reaction.

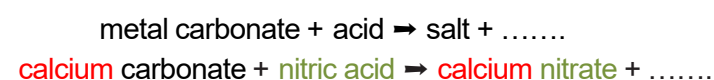
Different acids form different types of salts:

- Hydrochloric acids form chloride
- Sulphuric acids form sulphates
- Nitric acids form nitrates

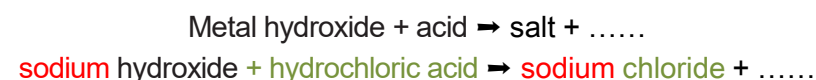
Metal acid reaction:



Metal carbonate reaction:

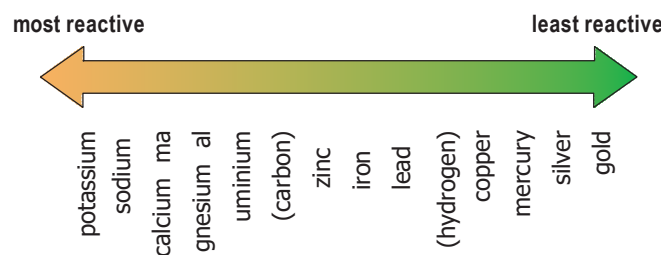


Neutralisation reactions (one from year 7):



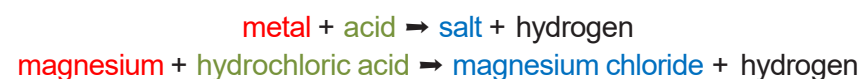
The reactivity series

- The **reactivity series** describes how reactive different metals are compared to one another
- The higher the metal is in the reactivity series the more reactive it will be. This means that it will react much more vigorously.
- Carbon and hydrogen are in the reactivity series so that you can see their relative reactivity. Metals higher than carbon in the series must be extracted using **electrolysis**.



Metal reactions

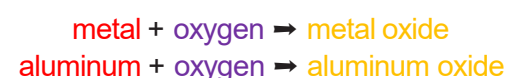
When a metal reacts with an acid it will produce a salt and hydrogen gas, the fizzing that you see is the hydrogen gas being given off.



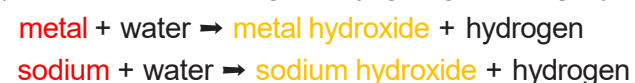
When a metal **carbonate** reacts with an acid, a salt, water and carbon dioxide is given off.



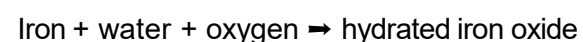
When a metal reacts with oxygen a metal **oxide** is formed, this process is known as **Oxidation**.



When a metal reacts with water it forms a metal **hydroxide** and hydrogen gas. The alkali (group 1) metals react most vigorously, giving off a brightly coloured flame.



A special oxidation reaction happens between iron and oxygen in the presence of water. This is called rusting.



When a more reactive metal reacts with a compound containing a less reactive metal, it can take its place, this is known as a **displacement** reaction



- If the metal on its own is higher in the **reactivity series** than the metal in the compound a reaction will take place
- If the metal on its own is lower in the reactivity series than the metal in the compound, a reaction will not take place

Metal extraction

Unreactive metals such as gold are found in the Earth's crust as elements. However most metals are found combined with other elements to form compounds.

Most metals are extracted from **ore** found in the Earth's crust. An ore is a rock that contains enough of a metal or a metal compound that makes extracting it worthwhile.

If a metal is less reactive than carbon then heating the metal in a fire with carbon will cause the carbon to **displace** the metal from its compound.

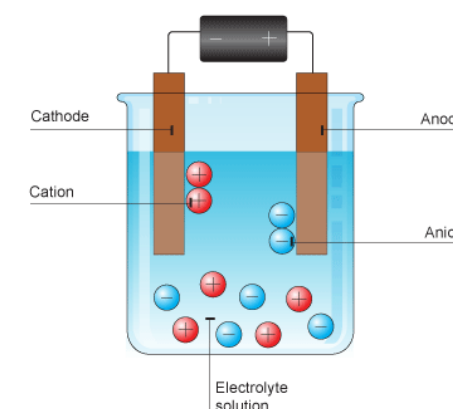
An example of this is the extraction of copper from its ore Malachite.

- copper oxide + carbon $\Rightarrow$ copper + carbon dioxide

Electrolysis

When a metal is more reactive than carbon then extraction by heating with carbon does not work.

Electrolysis can be used instead to extract these metals from their compounds.



The metal compound is melted and electrical current is passed through. The metal ions are attracted to and form a layer on the cathode (the negative electrode).



Key terms

Make sure you can write definitions for these key terms.

acid

acidic

neutralisation

oxide

chemical

carbonate

reactivity

reactivity series

salt

displacement

hydroxide

hydrochloric acid

sulphuric acid

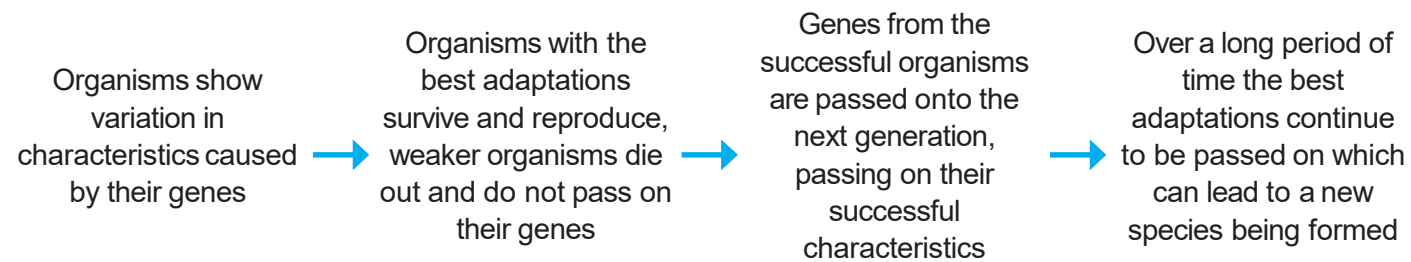
nitric acid

ore

electrolysis

Natural selection

- Scientists believe that the organisms which we see on Earth today have gradually developed over millions of years, this is known as **evolution**
- Charles Darwin came up with the concept of **natural selection**, he said that only the best adapted animals will survive to pass on their **genes**, weaker animals will die out



- One example of natural selection can be seen in giraffes, only the giraffes with the longest necks would be able to eat from trees, the ones with shorter necks would not be able to eat and die out
- This would mean that only the gene for long necks would be passed on, leading to all giraffes having long necks

Extinction

- A species will become **extinct** when all of a species die out
- The **fossil record** shows us that animals have existed in the past which have now become extinct
- Extinction can be caused by:
 - Changes to the environment
 - Destruction of habitat
 - New diseases
 - Introduction of new predators
 - Increased **competition**
- When a species becomes extinct, the variety of species within an ecosystem is reduced, this is also known as a reduction in **biodiversity**
- The more diverse a **population** is, the more likely they are to survive environmental changes

Punnet squares

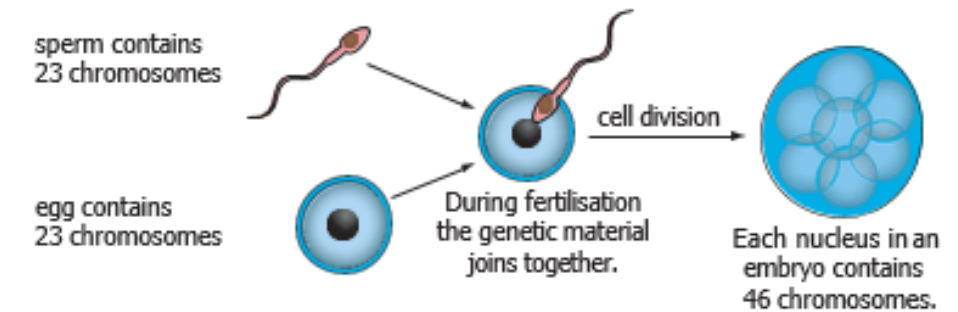
		Possible alleles from father	
		B	b
		(dominant allele for brown eyes)	(recessive allele for blue eyes)
Possible alleles from mother	b	Bb Offspring will have brown eyes as B is dominant	bb Offspring will have blue eyes as both alleles are recessive
	b	Bb Offspring will have brown eyes as B is dominant	bb Offspring will have blue eyes as both alleles are recessive

Genetic modification

- Genetic modification** is the process which scientists can use in order to alter the genes of an organism
- Examples of this include altering cotton to produce higher yields, altering bacteria genes to produce medicines and altering crops to produce their own insecticides

Inheritance

- Characteristics** are passed along from parents to their offspring
- Half of the genetic information comes from each parent, this is passed on through the sex cells in the process of fertilisation

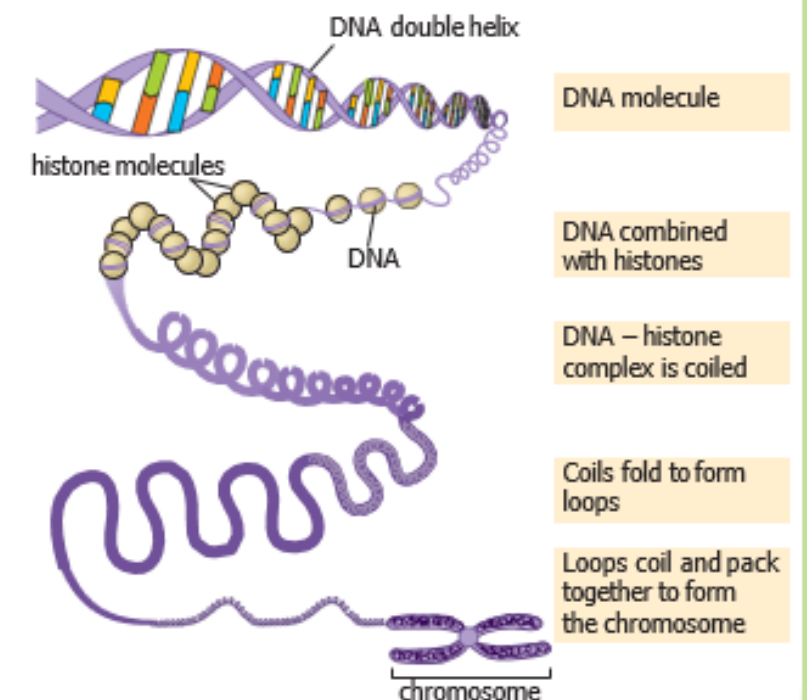


- DNA** is the material which contains all of this genetic information

DNA – in the shape of a double helix

Genes – a section of DNA which hold the information for a particular characteristic

Chromosomes – long strands of DNA which hold many genes, humans have 46 of these in the nucleus of cells



Genetics

- For every characteristic an organism will have two **alleles**, this is two different genes which can code for the same characteristic, one is inherited from each parent
- Dominant** alleles will cause the characteristic to be displayed even if they are with another allele, this is represented by a capital letter
- Recessive** alleles will not be displayed as characteristics unless there are two of the same allele, they are the characteristic least likely to be shown, this is represented by a small letter
- We can predict the inheritance of characteristics using a **Punnet square**



Key terms

Allele Biodiversity Characteristics Chromosome Competition DNA Dominant Evolution Extinct Fossil record Gene Genetic modification Mutation Natural selection Population Punnet square Recessive

Respiration

- Respiration is the process in which energy is released from the molecules of food which you eat
- Respiration happens in the mitochondria of the cell
- **Aerobic respiration** involves oxygen, it is more efficient as all of the food is broken down to release energy

$$\text{glucose} + \text{oxygen} \rightarrow \text{carbon dioxide} + \text{water}$$
- The glucose is transported to the cells in the blood **plasma**
- The oxygen is transported to the cells in **red blood cells**, by binding with **haemoglobin**
- Carbon dioxide is a waste product and is transported from the cells to the lungs to be exhaled

- **Anaerobic respiration** is a type of respiration which does not use oxygen, it is used when the body cannot supply the cells with enough oxygen for aerobic respiration
- Anaerobic respiration releases less energy than aerobic respiration

$$\text{glucose} \rightarrow \text{lactic acid} + \text{carbon dioxide}$$
- The **lactic acid** produced through anaerobic respiration can cause muscle cramps
- Lactic acid will build up if there is not enough oxygen present in the blood supply to break it down. This is known as an **oxygen debt**

Fermentation

- **Fermentation** is a type of anaerobic respiration which occurs in yeast
- Instead of producing lactic acid, yeast produces ethanol, which is a type of alcohol

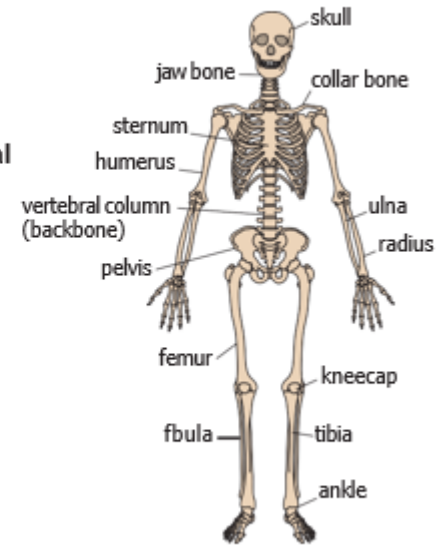
$$\text{glucose} \rightarrow \text{ethanol} + \text{carbon dioxide}$$
- This process can be used to form alcohol to drink or to allow bread and cakes to rise

Muscles

- **Muscles** are a type of tissue which allows movement
- They pull on tendons which in turn pull on bones to allow movement
- Muscles like the triceps and biceps are known as **antagonistic muscle pairs**, they work together –as one contracts, the other will relax

The skeleton

- The **skeleton** is made up of 206 **bones** which are a type of **tissue**
- Bones have a blood supply and are a living tissue
- The skeleton is part of the **muscular-skeletal system**
- The four main functions of the skeleton are:
 - To support the body –to keep you upright and hold **organs** in place
 - Protect organs –such as the skull protecting the brain
 - Movement –by working with muscles to allow you to move
 - Making blood cells –the **bone marrow** produces red and white blood cells



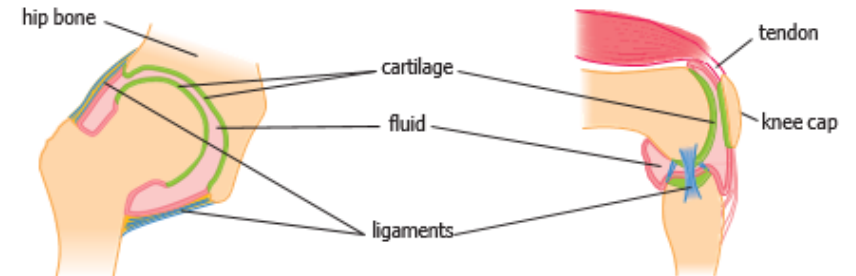
Movement

Joints occur between bones and allow movement, there are three main types of joints

Hinge	Ball and socket	Fixed
For back and forward movement, e.g. knees	For movement in all directions e.g. hips	Do not allow movement, e.g. skull

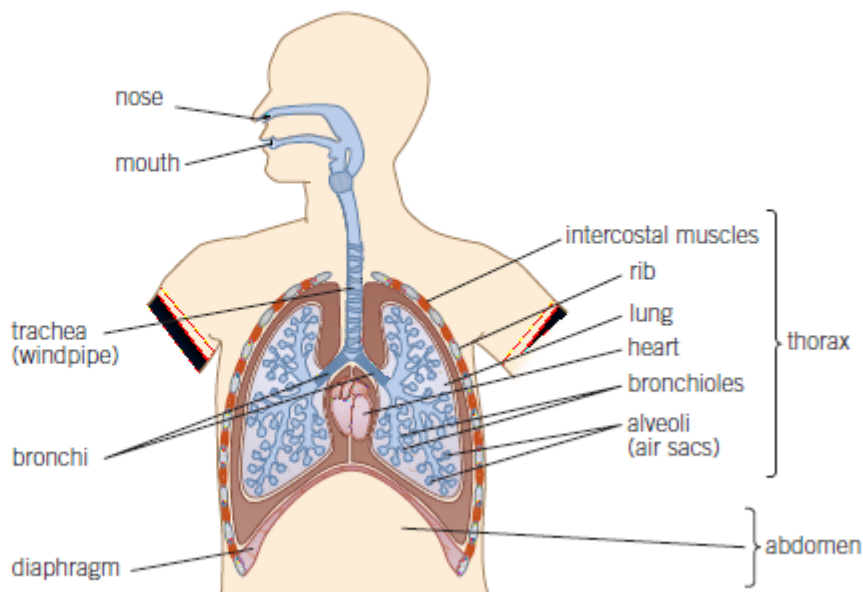
Joints have three main types of tissue:

Ligaments	Cartilage	Tendons
Connect bone to bone	Coats the end of bones as a protection	Connects bone to muscle



Gas exchange and breathing

- **Gas exchange** is the process of taking in oxygen and giving out carbon dioxide
- This occurs in the **respiratory system**
- The proportions of gases in the air we **inhale** and **exhale** changes due to using oxygen in **respiration** and producing carbon dioxide

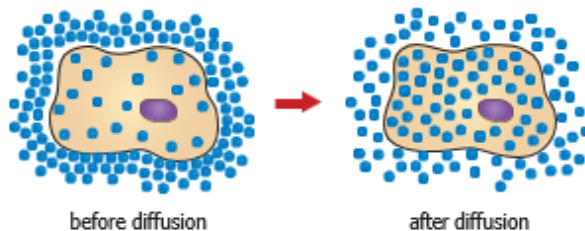


What happens when you breathe in and out

when you breathe in (inhale)	• muscles between the ribs contract • ribs are pulled up and out • diaphragm contracts and flattens • volume of the chest increases • pressure inside the chest decreases • air rushes into the lungs
when you breathe out (exhale)	• muscles between ribs relax • ribs are pulled in and down • diaphragm relaxes and moves up • volume in the chest decreases • pressure inside the chest increases • air is forced out of the lungs

Movement into and out of cells

- The process in which substances move into and out of cells is known as **diffusion**
- This occurs across the **cell membrane**
- During diffusion particles move from an area of **high concentration**, to an area of low concentration



- Oxygen and nutrients enter the cell by diffusion, carbon dioxide and waste products leave

B5

Animals

Knowledge organiser
Activate
Question Organiser

Drugs

- **Drugs** are chemicals that affect the way that our body works
 - **Medicinal drugs** are used in medicine, they benefit health
 - If medicinal drugs are not taken in the correct way they can harm health
 - Examples include antibiotics and pain killers
-
- **Recreational drugs** are taken by people for enjoyment
 - Recreational drugs normally have no health benefits and can be harmful for health
 - Examples include alcohol and tobacco
-
- Drug **addiction** is when your body gets so used to a drug, it feels it cannot cope without it
 - If someone who has an addiction stops taking the drug, they will experience **withdrawal symptoms**



Key terms

Make sure you can write definitions for these key terms.

Aerobic respiration Anaerobic respiration Antagonistic muscle pairs Bone
Bone marrow Cartilage Diffusion Drug Exhale Fermentation Gas exchange
Haemoglobin Inhale Joints Lactic acid Ligaments Medicinal drug Muscle
Oxygen debt Plasma Recreational drug Red blood cells Respiration
Respiratory system Skeleton Tendons Tissue Withdrawal symptoms

Year 9 Resistant Materials Knowledge Organiser



Finger joint

Forming timber through laminating thin, flexible layers of wood to form a stiff, usable shape.

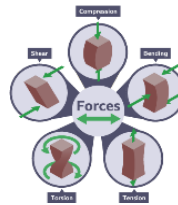


Dowel joint

Forces and stresses

Forces act on materials all the time - even if a material appears stationary it still has a force acting on it. There are five terms used to describe what type of force can act on a material:

- **tension** - a pulling force
- **compression** - a pushing force
- **bending** - forces at an angle to the material
- **torsion** - a twisting force
- **shear** - forces acting across the material



Lap Joint

MDF is made from small timber fibres that are mixed with wax and **resin**. They are heated and **compressed** so that a flat, usable sheet is produced.

Machinery and Tools in the workshop



Tenon Saw: used for sawing straight lines in wood.



Chisel: used to shape wood. Can cut out sections



File: Abrade a thin surface area of wood.



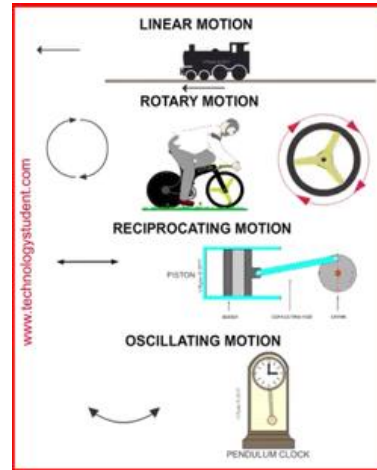
Hand Drill: used to drill holes into materials



Rasp: Abrade a thick surface area of wood.



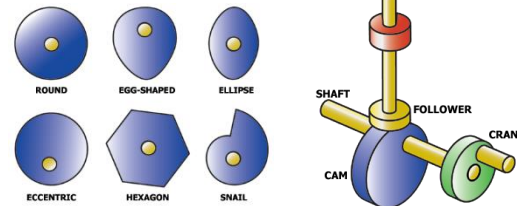
Coping Saw: used to saw curved lines into wood.



Cams and followers

A **cam mechanism** has two main parts:

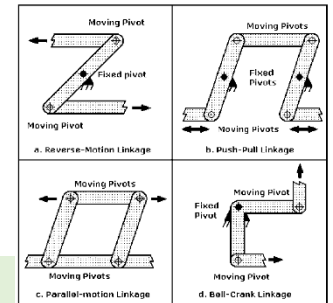
- a **cam** - attached to a **crankshaft**, which rotates
- a **follower** - touches the cam and follows the shape, moving up and down



Linkages

Levers can be joined together to form **linkages**.

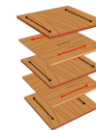
Simple linkages change the direction of motion and the amount of force.



The Forest Stewardship Council (FSC) is an international organisation that promotes responsible forest management.

Reinforced materials and methods include

- Corrugated cardboard
- lamination of timber (plywood)
- lamination of paper
- Reinforced concrete



Product analysis - Looking at products that already exist can help improve further designs by pinpointing issues to improve designs and **prototypes**.

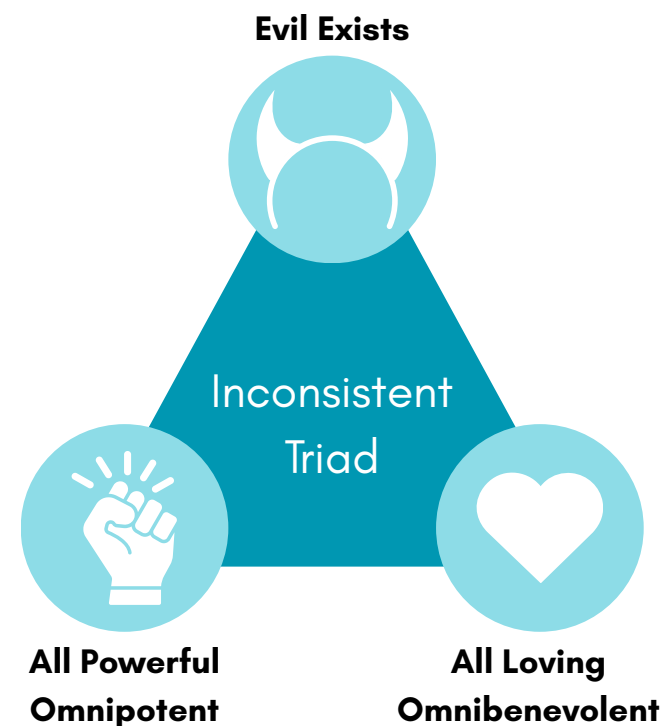
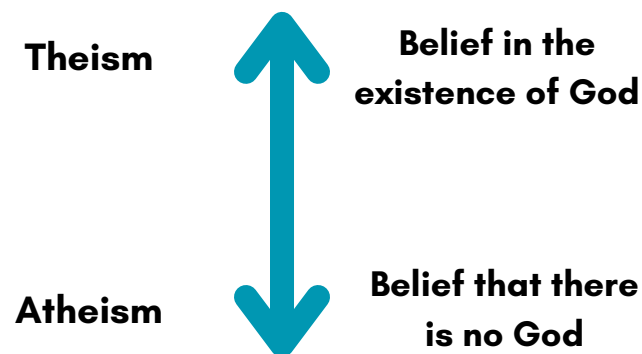
Modelling

Modelling ideas in card, paper, clay or other materials can create a cheap and quick way to do initial trials with a product. Using an easy to modify material provides a good way of seeing how a product looks and works, eg checking handles are in the right place or parts fit together well. Taking photographs or video throughout this can show development.



Year 9 Religious Education - Autumn Term

The Problem of Evil and Suffering



Key Term	Definition
Evil	Profound immorality or wickedness causing harm or suffering.
Suffering	The experience of pain, distress, or hardship.
Moral Evil	Evil resulting from human choices and actions (e.g., murder).
Natural Evil	Suffering caused by natural events (e.g., earthquakes).
Theodicy	A defence of God's goodness despite the existence of evil.
Free Will	The ability to choose freely between different courses of action.
Moral Responsibility	Being accountable for one's own actions and their consequences.
Compassion	Deep empathy and care for others who are suffering.
Charity	Voluntary giving to help those in need.
Philosophy	The study of fundamental questions about life, knowledge, and existence.

Augustines Theodicy

The idea that evil is the result of human misuse of free will; God created a perfect world.

Irenaean Theodicy

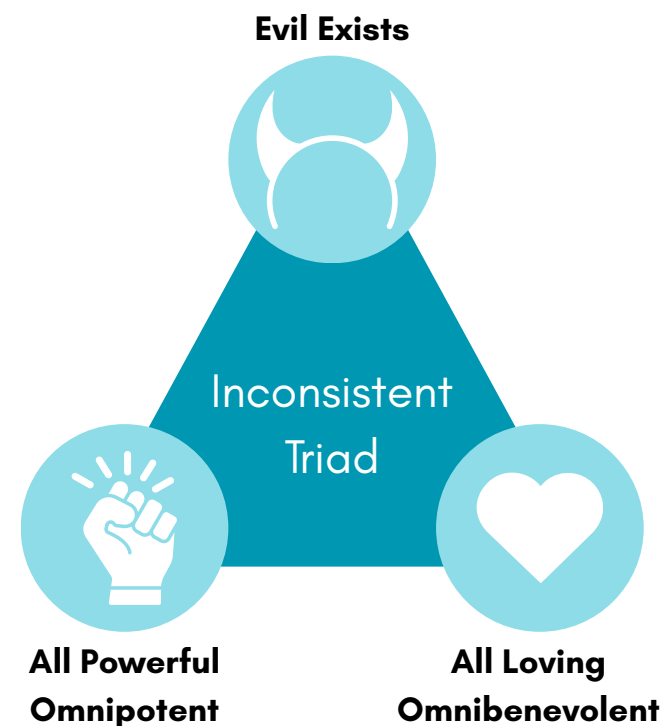
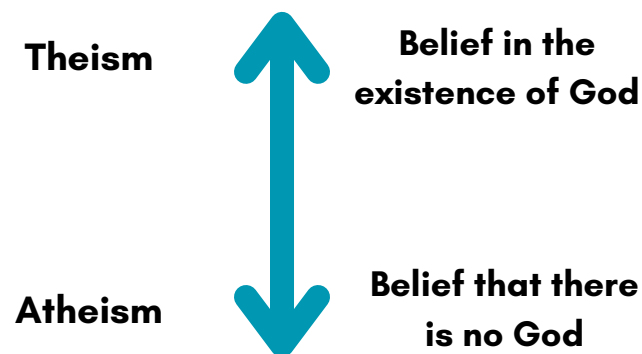
The idea that suffering helps humans grow morally and spiritually.

A philosophical problem that says God cannot be omnipotent, omnibenevolent, and allow evil to exist all at once.



Year 9 Religious Education - Autumn Term

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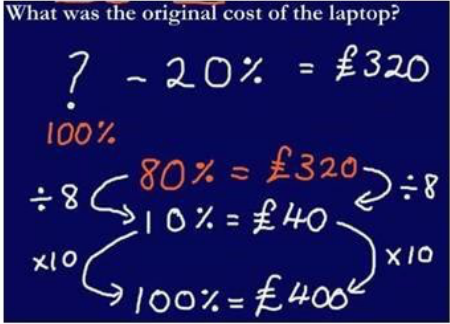
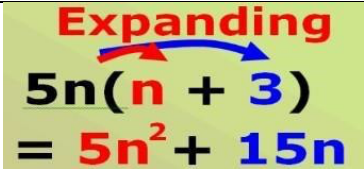
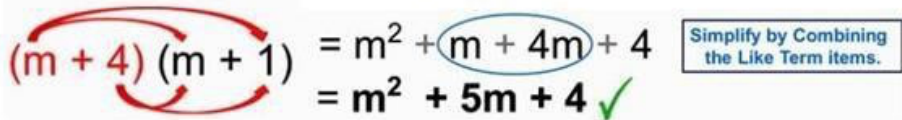
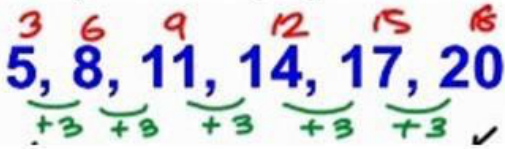
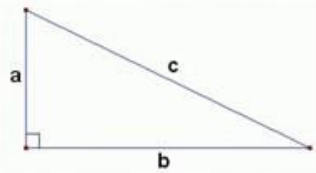
The idea that evil is the result of human misuse of free will; God created a perfect world.

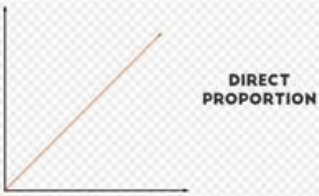
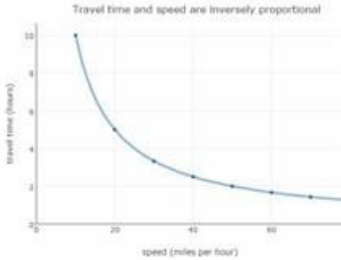
Irenaean Theodicy

The idea that suffering helps humans grow morally and spiritually.

A philosophical problem that says God cannot be omnipotent, omnibenevolent, and allow evil to exist all at once.

Year 9 Autumn Maths Knowledge Organiser

Topic	Key fact
Percentage of Amount	Turn the percentage into a decimal and multiply it by the amount. e.g. 45% of 60 is $0.45 \times 60 = 27$ The 0.45 is called the decimal multiplier.
Percentage Increase & Decrease	If it is a percentage increase, the decimal multiplier will be 1.something because you are getting more than 100%. If it is a percentage decrease, the decimal multiplier will be 0.something because you are getting less than 100% e.g increase £200 by 40% would be 200×1.4 decrease £200 by 40% would be 200×0.6
Reverse percentages	Sale price is £320 What was the original cost of the laptop? 
Expanding a single bracket	
Expanding double brackets	Expanding – multiplying out the brackets. 
Linear sequences (n th term) & Special Sequences	Square: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, ... Cube: 1, 8, 27, 64, 125, ... Triangular: 1, 3, 6, 10, 15, 21, 28, 36, 45, ... nth term: General rule for a sequence. Find the difference between each term, then how do you get from that times table to the sequence: (e.g. $3n + 2$) 
Pythagoras' Theorem	c = hypotenuse  $a^2 + b^2 = c^2$ $c^2 - b^2 = a^2$ $c^2 - a^2 = b^2$ Remember to square root your answer to find the missing side.

Indices	$a^m \times a^n = a^{m+n}$ $a^m / a^n = a^{m-n}$ $(a^m)^n = a^{m \times n}$ $a^0 = 1$ $a^1 = a$
Calculations with numbers in standard form	Multiplying & dividing: do the 'normal' numbers like usual; then use index laws for the $\times 10^n$ Adding & subtracting: make them ordinary numbers first; do column addition or subtraction; change back to standard form
Negative and Fractional Indices	$m^{a/b} = \sqrt[b]{m^a}$ $a^{-c} = \frac{1}{a^c}$ $\left(\frac{1}{a}\right)^{-c} = a^c$ $\left(\frac{x}{y}\right)^{-c} = \frac{y^c}{x^c}$
Direct Proportion	One quantity increases at the same rate as the other quantity increases. 
Inverse Proportion	One quantity increases at the same rate as the other quantity decreases. 

Key Vocabulary

Integer – A whole number.

Power/Indices - The index of a number says how many times to use the number in a multiplication. It is written as a small number to the right and above the base number.

Square number - the answer you get when you multiply a number by itself.

Cube number - the answer you get when you multiply a number by itself 3 times.

Root – The inverse operation of a power.

Expand – to multiply the term before bracket by the terms in the bracket using the

Factorise – To put into brackets by taking out the highest common factor.

Hypotenuse – the longest side in a right-angled triangle.

Direct proportion - one quantity increases at the same rate as the other quantity increases.

Inverse proportion - one quantity increases at the same rate as the other quantity decreases.

n^{th} term – the position to term rule for a sequence. Can be used to find any number in a sequence.



WOMEN'S SUFFRAGE

KNOWLEDGE ORGANISER



Summary

Women's Suffrage is about the **right of women to vote** at elections.

At the start of the 19th century, women in Britain did not have the right to vote. They also had **few legal protections** or **rights to education or work**.

By the end of the 1800s, there was increasing support for the right of women to vote. There were two main groups who campaigned for women's rights, the **Suffragists** (NUWSS) and the **Suffragettes** (WSPU).

In 1918, just before World War One ended, the government passed a law giving some women the right to vote for the first time. **Further acts in 1928 and 1969** extended this to more women.

Anney Kenney and Christabel Pankhurst of the Suffragettes in 1908.



Key People

MILLCENT
FAWCETT
(1847-1929)



-Dame Millicent Garratt Fawcett was the leader of the Suffragists from 1897 until 1919.
- This organization advocated for women's suffrage through peaceful and non-violent means, such as lobbying, public speaking, and organizing petitions.
Over time they won some publicity, and their membership grew, but by 1903 some women were increasingly frustrated at the lack of progress they were making and formed the Suffragettes. Fawcett distanced herself from these more militant and direct approaches.

EMMELINE
PANKHURST
(1858-1928)



-Emmeline Pankhurst had been a former member of the Suffragists but became frustrated with their approach. She then formed the Suffragettes in 1903.
-It was a more inclusive group, which welcomed women from a range of different backgrounds and groups.
-Her daughters, Christabel and Sylvia, were also active and important to the cause.
-From 1905, when the Suffragettes campaign became more extreme (sometimes violent), Pankhurst often found herself in trouble with the police. At the outset of WWI, she encouraged women to join the war effort and was integral to women eventually being given the right to vote.

EMILY DAVISON
(1872-1913)



-Emily Davison was a prominent English Suffragette.
-She was a militant fighter for her cause - she was arrested on nine occasions, went on hunger strike seven times and was force-fed on forty-nine occasions.
-In 1913, she went to the Derby at Epsom, one of the most famous horse races in the world. Carrying a Suffragettes sash, she walked onto the racetrack in front of King George's horse, Amner. She was hit by the horse, which would have been travelling around 35mph. She suffered serious injuries and later died in hospital. It is thought she intended to attach the sash to the horse to raise awareness of the campaign for women's suffrage.

Key Vocabulary

Suffrage

Suffragette

Suffragist

NUWSS

WSPU

Hunger Strike

Cat & Mouse Act

Petition

Act

Emmeline Pankhurst

Millicent Fawcett

Emily Davison

Major Events

Women's Suffrage Petition - 1866



In 1866, Barbara Bodichon and other women's rights activists presented the first women's suffrage petition to Parliament. Signed by over 1,500 women, the petition demanded that women be granted the right to vote on the same terms as men. While this initial petition was unsuccessful, it laid the groundwork for future suffrage efforts.

Formation of Suffragists (NUWSS) - 1897

The NUWSS, led by Millicent Fawcett, advocated for women's suffrage through peaceful and constitutional means. Unlike the more militant WSPU, the NUWSS focused on lobbying, public speaking, and organizing petitions to achieve suffrage. The NUWSS played a crucial role in gaining support for women's suffrage and paved the way for future legislative victories.

Formation of the Suffragettes - 1903

Founded by Emmeline Pankhurst and her daughters Christabel and Sylvia, the WSPU was a militant suffragette organization that played a significant role in the women's suffrage movement. The WSPU employed tactics such as demonstrations, hunger strikes, and window-smashing to draw attention to the cause and put pressure on the government.

Cat and Mouse Act - 1913



The Act was designed to deal with suffragettes who engaged in hunger strikes while imprisoned. Under this Act, hunger-striking prisoners could be released from prison if their health deteriorated to a dangerous level due to starvation. Once their health improved, they could be rearrested and returned to prison to complete their sentence.

Representation of the People Acts - 1918 and 1928

- The Representation of the People Act 1918 was a landmark piece of legislation that partially granted women the right to vote in the UK. It extended voting rights to women over the age of 30 who met certain property qualifications, as well as to all men over 21.
- The Representation of the People Act 1928, also known as the Equal Franchise Act, granted equal voting rights to women and men over the age of 21, regardless of property qualifications.
 - This legislation finally achieved universal adult suffrage in the UK.

Top Facts

1. When the Suffragettes began adopting more aggressive acts, their motto became 'Deeds Not Words.'
2. Before the Cat and Mouse Act, Suffragettes were often force-fed when they went on hunger strike.
3. Emily Davison's death raised awareness of the cause.
4. World War 1 drastically changed women's role in society. Women were cast into roles previously occupied by men. It is thought that this contributed to changing attitudes across the country.
5. The 1918 Representation of People Act wasn't thought to go far enough. Women still had to be over the age of 30 and own property to be allowed to vote.
6. 'Suffrage' means the right to vote in elections.
7. There remains divided opinion over the extreme strategies adopted by the Suffragettes.
8. The fight for women's rights is not over. Men are still paid more on average for doing the same jobs, and in many countries women do not have basic rights.

Women's Suffrage Timeline

1866: First women's suffrage petition is presented to parliament by Barbara Bodichon.

1867: Formation of London Society for Women's Suffrage.

1897: Establishment of Suffragists (NUWSS).

1903: Formation of Suffragettes under Emmeline Pankhurst.

1907: First 'Mud March' by Suffragettes in London.

1908: Women's Sunday demonstration.

1913: Emily Davison steps out in front of the King's horse at the Epsom Derby.

1918: Representation of People Act is passed, granting voting rights to some women over 30.

1928: Representation of People act passed, granting equal voting rights to women and men.

Year 9 – The First World War

Knowledge Organiser

Background Info

- Tension had been building between the major countries of Europe at the start of the 20th century making war increasingly likely.
- When Archduke Franz Ferdinand was assassinated by a Serbian nationalist in June 1914 Austria-Hungary declared war on Serbia.
- A system of alliances quickly made this war escalate into a much bigger conflict as countries such as Russia, Germany, France and Britain rushed to support their allies.
- World War I lasted from 1914 to 1918. It was known at first as the Great War.
- Most of the battles took place in Europe and the Middle East. More than 8 million soldiers and sailors died, and more than 20 million were injured.

Chronology

1882	The Triple Alliance is formed.
1906	Britain launches its new battleship HMS Dreadnought.
1907	The Triple Entente is formed.
28 th June 1914	Archduke Franz Ferdinand is assassinated.
4 th August 1914	Britain declares war on Germany.
October 1914	1 st Indian troops fought on the Western Front.
July 1 st 1916	The Battle of the Somme begins.
April 1917	USA entered the war.
11 th November 1918	The armistice is signed and the First World War ends.

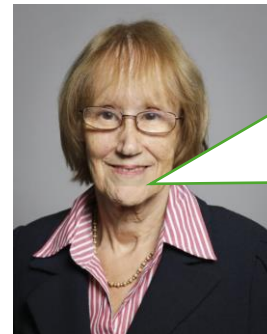
Key Words

Kaiser	The Kaiser was the German monarch. In WWI this was Kaiser Wilhelm.
Empire	A group of countries owned and controlled by one country.
Alliance	An agreement between two or more countries to help one another in the event of war.
Arms Race	Countries compete to build up their armaments.
Schlieffen Plan	Germany's plan at the start of WWI.
Conscription	When people are forced to join the armed forces.
Trenches	A defensive system of ditches used by soldiers.
Armistice	An agreement made to end the First World War.

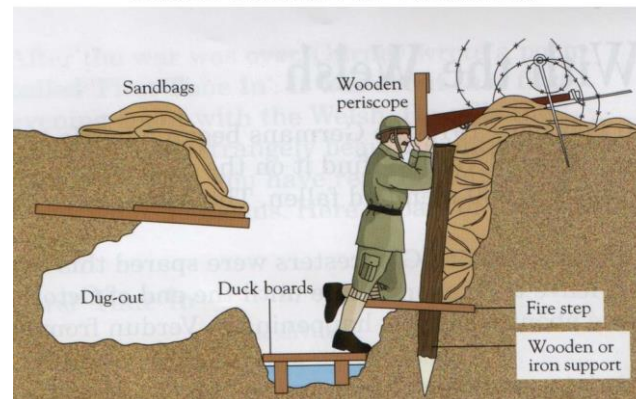
Historical Interpretation

‘By 1912, most European governments had come to believe that a general European war was inevitable and that the problems which plagued them at home and abroad could no longer be settled by negotiation and diplomacy... In these circumstances, war seemed to offer an attractive way out’.

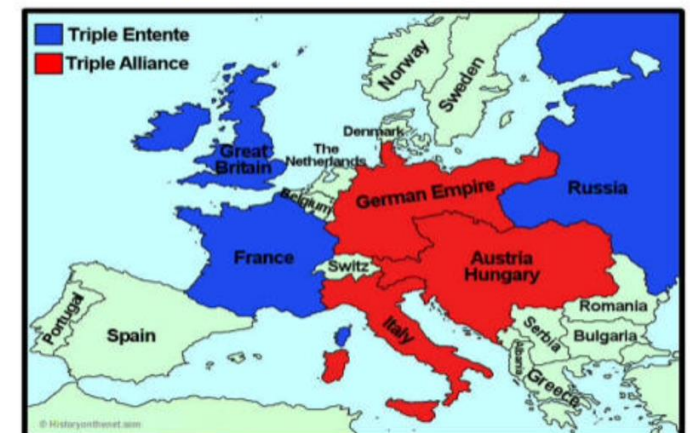
Historian – Baroness Ruth Henig



Cross-section of Trenches



World War One Alliances 1914



Year 9 Knowledge Organiser – Globalisation

Globalisation is the idea that the world is becoming increasingly connected

Effects of globalisation



Globalization creates access to Goods and Services Globalization makes more goods and services available to more people, often at lower prices. For example, we can now buy food, clothing and goods from other countries for cheaper prices.	Globalization makes all cultures more similar Globalization leads to people becoming more similar in culture and beliefs. Traditional products cannot compete with cheaper ones made by TNCs and small businesses disappear as big TNCs take over. If everyone wears jeans, learns English and watches Hollywood movies we may lose precious cultural practices and languages and make the world less diverse.	Globalization Can Lift People Out of Poverty Globalization has caused increased job opportunities in developing countries (poorer countries) that would not have been available before.
Information and Technology Spread More Easily With Globalization Art and culture aren't the only things that spread more easily in a globalized society. The same goes for information and technology. Societies can look to other countries for inspiration and good ideas and useful technology can spread more easily.	Globalization Increases Cultural Awareness Globalization means we are more aware of different cultures, attitudes and values of people in other countries. That exposure can inspire artists, strengthen ties between nations and reduce racism.	Globalization increases poverty in some countries Big companies actively seek the countries with the weakest labour and environmental laws and the lowest wages so that they can profit more and pay the poor workers less.
Workers Can Lose Jobs to Countries With Lower Cost Labor Low-skill factory jobs in the richer countries (e.g. UK, USA) can disappear as a result of globalization (for example factories close in the US and reopen in China as it is much cheaper). This can result in unemployment and poverty in richer countries.	TNCs and big companies are becoming very powerful Another criticism of globalization is that it has made big companies and TNCs too powerful. For example, big TNCs like Amazon now have so much power they can often find ways to avoid paying taxes or following labour rules in some countries.	Key Positive: Negative:

Case studies



Impacts of TNCs in Africa

Positive impacts of Shell in Nigeria	Some people suggest Shell has been over working some of it's Nigerian workers.	Oil spills caused by Shell have devastated rivers and beaches, killing millions of animals.
Negative impacts of Shell in Nigeria	Over 65, 000 Nigerians are employed by Shell and earn a good income.	Local farmers and fishermen have lost their jobs and incomes due to oil spills polluting seas and rivers.
Oil fires frequently happen due to accidents and violence caused by pirates. This creates lots of air pollution.	Due to local jobs like farming and fishing being lost, some locals have become armed pirates and survive by stealing oil which they sell.	Shell has helped Nigeria to develop and improve its infrastructure e.g more Nigerians have access to energy and electricity.
Much of the profit that Shell makes is not spent in Nigeria and goes back to other countries.	Shell works with any other Nigerian companies, boosting income for some Nigerian businesses.	Shell pays lots of taxes in Nigeria. These taxes can be used to improve Nigeria.



Locations of Costa Coffee around the world



What should I already know?

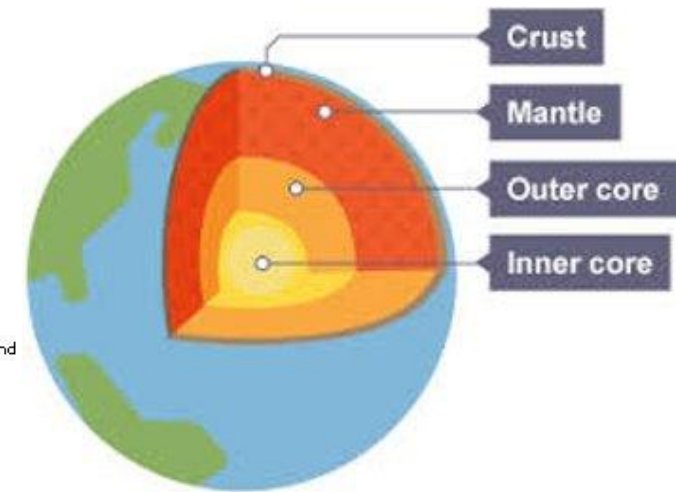
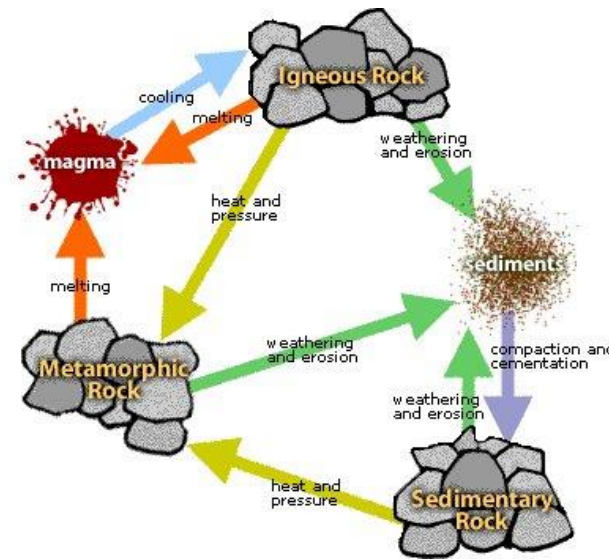
Map Skill

Key Definitions

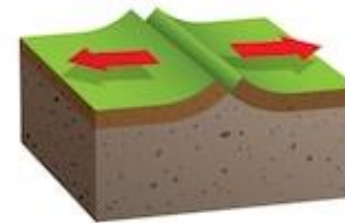
Keyword	Definition
Globalisation	The flow of people, goods, ideas and money worldwide. This is creating a complex web of inter-dependence, connecting people and places all around the world
TNC	Trans National Corporations: large companies that operate in many countries around the world.
NGO	Non- Governmental organisations: these do not set out to make a profit, and are set up to address a social, health or political issue.
Trade	The buying and selling of natural resources, manufactured goods and services.
Localism	Buying local products from local business that are unique to that area.
Profit	The amount of money that you gain when you are paid more for something compared to what it cost you to make it, get it or do it.
Revenue	The total amount of money a company makes each year
Costs	All the money a company has to spend, for example paying staff, making products, keeping shops open etc.
Economy	The ways a country makes and spends its money.
Imports	The raw materials, goods and services that a country buys from other countries.
Exports	The raw materials, goods and services that a country sells to other countries.
Labour	Working people in a country

Year 8 Knowledge Organiser – Tectonics

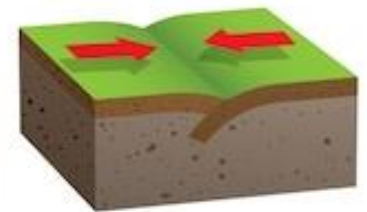
Key Word	Definition
Crust	The solid outer layer of the Earth.
Mantle	The semi-molten layer of the Earth that the crust 'floats' on.
Outer Core	The liquid layer of the Earth below the mantle.
Inner Core	The solid layer of the Earth at its very centre.
Tectonic Plates	The Earth's crust (and upper part of the mantle) are broken into large pieces called tectonic plates.
Plate Boundary	Where two tectonic plates meet. There are four types: constructive, destructive, collision and conservative.
The Rock Cycle	The processes that turn one type of rock into another over time.
Igneous	Rock that has been melted.
Sedimentary	Rock that has been eroded and compressed.
Metamorphic	Rock that has been heated and pressured.
Glacier	A large mass of ice often shaped like a river that flows very slowly, under the force of gravity.



Constructive



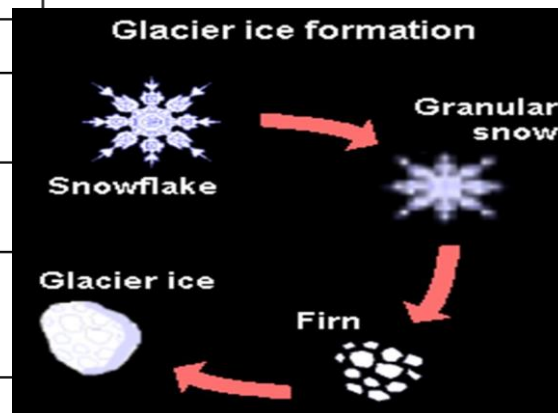
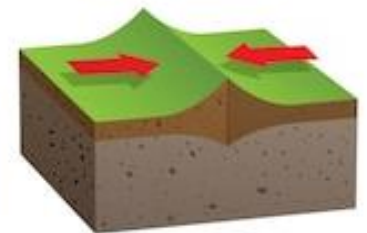
Destructive



Conservative



Collision



Qu'est-ce que tu vas faire le week-end prochain? What are you going to do next weekend?

Le week-end prochain (next weekend)	Je vais (I'm going)	aller au cinéma (go to the cinema) aller à une fête (go to a party) aller au centre commercial (go to the shopping centre)
lundi prochain (next Monday)	Tu vas (you are going)	
mardi prochain (next Tuesday)	Il /elle va (he/she is going)	faire du sport (do sport)
mercredi prochain (next Wednesday)	On va (we are going)	faire les magasins (go shopping) faire du cheval (go horse-riding) faire mes devoirs (do my homework)
jeudi prochain (next Thursday)	Nous allons (we are going)	
vendredi prochain (next Friday)	Vous allez (you are going)	regarder un film (watch a film)
samedi prochain (next Saturday)	Ils /elles vont (they are going)	jouer au foot (play football) jouer sur mon ordinateur (play on my computer)
dimanche prochain (next Sunday)		voir un concert (see a concert) voir un match de foot (see a football match)
La semaine prochaine (next week)		manger une pizza (eat a pizza) boire du coca (drink coke)
<u>Ce sera comment? How will it be?</u>	Je pense que (I think that) A mon avis (In my opinion) Je crois que (I believe that) Selon moi (According to me) Je trouve que (I find that) Je dirais que (I would say that)	Ce sera amusant (it will be fun) Ce sera passionnant (it will be exciting) Ce sera cool (it will be cool) Ce sera génial (it will be great) Ce sera nul (it will be rubbish) Ce sera ennuyeux (it will be boring)

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

Le week-end dernier (last weekend)	Je suis (I)	allé au cinéma (went to the cinema) allé à une fête (went to a party) allé au centre commercial (went to the shopping centre)
lundi dernier (last Monday)		
mardi dernier (last Tuesday)	J'ai (I have)	fait du sport (did sport) fait les magasins (went shopping) fait du cheval (went horse-riding) fait mes devoirs (did my homework)
mercredi dernier (last Wednesday)	Tu as (You have)	
jeudi dernier (last Thursday)	Il / elle a (he/she has)	regardé un film (watched a film)
vendredi dernier (last Friday)	on a (we have)	
samedi dernier (last Saturday)	Nous avons (we have)	joué au foot (played football) joué sur mon ordinateur (played on my computer)
dimanche dernier (last Sunday)	Vous avez (you have)	vu un concert (saw a concert) vu un match de foot (saw a football match)
La semaine dernière (last week)	Ils / elles ont (they have)	mangé une pizza (ate a pizza) bu du coca (drank coke)

C'était comment? How was it?

Je pense que (I think that) A mon avis (In my opinion) Je crois que (I believe that) Selon moi (According to me) Je trouve que (I find that) Je dirais que (I would say that)	C'était amusant (it was fun) C'était passionnant (it was exciting) C'était cool (it was cool) C'était génial (it was great) C'était nul (it was rubbish) C'était ennuyeux (it was boring)
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Qu'est-ce qu'on peut faire dans ta ville? What can you do in your town?

Dans ma ville (**In my town**)

On peut (**one can**)

On ne peut pas (**one cannot**)

aller à un match de foot (**go to a football match**)

aller au cinéma (**go to the cinema**)

aller au centre commercial (**go to the shopping centre**)

faire du cheval (**do some horse riding**)

faire du ski (**do some skiing**)

faire de l'équitation (**go horse-riding**)

faire des promenades (**do some walks**)

faire les magasins (**do some shopping**)

faire un pique-nique (**do a picnic**)

faire de la randonnée (go hiking)

se baigner dans la mer (**swim in the sea**)

se détendre sur la plage (**relax on the beach**)

visiter le château (**visit the castle**)

visiter les musées (**visit the museums**)

regarder un match de foot (**watch a football match**)

Qu'est-ce que tu as fait récemment en ville? What did you do recently in town?

Le week-end dernier (last weekend)	J'ai joué (I played)	au foot au tennis
Il y a trois jours (three days ago)	J'ai fait (I did/went)	de la natation du shopping du footing
Hier (yesterday)	J'ai regardé (I watched)	un film des séries sur Netflix la télé
Récemment (recently)	J'ai vu (I saw)	un film un concert un match de foot
Avant hier (the day before yesterday)	J'ai mangé (I ate)	une pizza du popcorn une glace (an ice cream)
La semaine dernière (last week)	Je suis allé(e) (I went)	au cinéma au centre commercial au centre sportif

Où habites-tu? **Where do you live?**

J'habite (I live)	en France (in France)	dans un village (in a village)
Nous habitons (We live)	en Italie (in Italy)	dans une ville (in a town/city)
	en Espagne (in Spain)	au centre-ville (in the city centre)
	en Grèce (in Greece)	au bord de la mer (by the seaside)
	en Allemagne (in Germany)	à la campagne (in the countryside)
	en Angleterre (in England)	à la montagne (in the mountains)
	en Irlande (in Ireland)	en ville (in town)
	en Suisse (in Switzerland)	
	en Écosse (in Scotland)	
	en Australie (in Australia)	
	au pays de Galles (in Wales)	
	aux États-Unis (in America)	
	à Paris (in Paris)	
	à Londres (in London)	

C'est où exactement? **Where is it exactly?**

c'est dans le nord (it's in the north)	de l'Angleterre (of England)
c'est dans le sud (it's in the south)	de l'Écosse (of Scotland)
c'est dans l'est (it's in the east)	de l'Irlande (of Ireland)
c'est dans l'ouest (it's in the west)	de la France (of France)
c'est dans le centre (it's in the centre)	du pays de Galles (of Wales)

Qu'est-ce qu'il y a dans ta ville? **What is there in your town?**

Dans ma ville, il y a (In my town, there is)	un centre de loisirs (a leisure centre)
Dans mon village, il y a (In my village, there is)	un château (a castle)
Près de chez moi (Near my house)	un musée (a museum)
Dans mon quartier (In my neighbourhood)	un stade (a stadium)
Il n'y a pas de/d' (There isn't)	un supermarché (a supermarket)
	une poste (a post office)
	une bibliothèque (a library)
	une église (a church)
	une gare (SNCF) (a train station)
	une mosquée (a mosque)
	un centre commercial (a shopping centre)
	un club de jeunes (a youth club)
	un grand parc (a big park)
	une piscine (a swimming pool)
	une patinoire (an ice-rink)

Tu aimes ta ville? **Do you like your town?**

J'aime (I like)	ma ville (my town/city)	car/parce que (because)
J'adore (I love)	mon village (my village)	c'est (it is)
J'aime beaucoup (I really like)	mon quartier (my neighbourhood)	
Je n'aime pas (I don't like)		
Je déteste (I hate)		

grand(e) (big)	petit(e) (small)
joli(e) (pretty)	dangereux/dangereuse (dangerous)
sûr(e) (safe)	bruyant(e) (noisy)
amusant(e) (fun)	ennuyeux/ennuyeuse (boring)
intéressant(e) (interesting)	sale (dirty)
animé(e) (lively)	ancien/ancienne (old)
propre (clean)	moche (ugly)
moderne (modern)	
tranquille (calm/quiet)	
il y a beaucoup de choses à faire (there are lots of things to do)	

JACOBEOAN RHETORIC

GLOSSARY:

Rhetoric – the art of spoken or written persuasion

Quintessentially – the most typical example of something

Decipher – convert into understandable language

Mastery – comprehensive knowledge or skill in a certain area

Pedagogical – relating to teaching

Litigation – The process of taking legal action

Prosaic – having the style of prose, as opposed to the beauty and crafting of poetry

Deliberative rhetoric is speech or writing that attempts to persuade an audience to take (or not take) some action.

Judicial rhetoric is speech or writing that considers the justice or injustice of a certain charge or accusation.

Epideictic rhetoric is speech or writing that praises (encomium) or blames (invective).

“Classical Rhetoric, the art of persuasion, formed the sum and substance of Shakespeare's education and was the basis of his understanding of the power of language and how it worked to move, delight and teach. Rhetoric, which seeks to explain the way that language works to influence others, provides a powerful, transformative tool for approaching text in performance.” Arden/Benet Brandreth.

Rhetorical Devices:

I – Imperative verbs

N – Nouns (pronouns/addressing the reader)

A - Alliteration

F - Facts

O - Opinion

R – Rhetorical questions

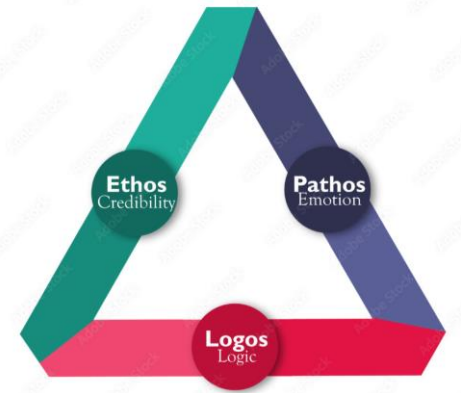
E – Emotive language

S - Statistics

T - Triplets



Aristotle's Rhetorical Triangle

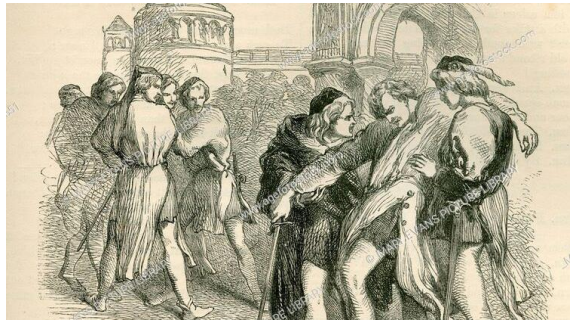


Shakespeare's *Romeo and Juliet*



Romeo and Juliet – Shakespeare's most infamous tragedy.

An age-old vendetta between two powerful families erupts into bloodshed. A group of masked Montagues risk further conflict by gatecrashing a Capulet party. A young lovesick Romeo Montague falls instantly in love with Juliet Capulet, who is due to marry her father's choice, the County Paris. With the help of Juliet's nurse, the women arrange for the couple to marry the next day, but Romeo's attempt to halt a street fight leads to the death of Juliet's own cousin, Tybalt, for which Romeo is banished. In a desperate attempt to be reunited with Romeo, Juliet follows the Friar's plot and fakes her own death. The message fails to reach Romeo, and believing Juliet dead, he takes his life in her tomb. Juliet wakes to find Romeo's corpse beside her and kills herself. The grieving family agree to end their feud. (source: www.shakespeare.org.uk)



Keywords and terminology:

Iambic pentameter – 10 syllables in a line of writing/poetry.

Simile – comparing two things using “like” or “as”.

Vendetta - a blood feud in which the family of a murdered person seeks vengeance on the murderer or the murderer's family.

Dichotomy – a division or contrast between two opposed things.

Epithet - an adjective or phrase expressing a quality or attribute regarded as characteristic of the person or thing mentioned (“star-crossed lovers”).

Foreshadowing – ideas or events which hint at later events in the story.

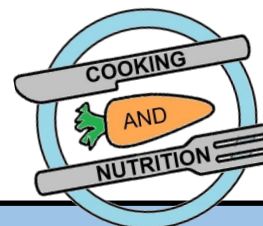
Dramatic Irony – When a character is not aware of events in the story, but the audience are aware.

Microcosm – a small group of society used to represent a much larger issue.

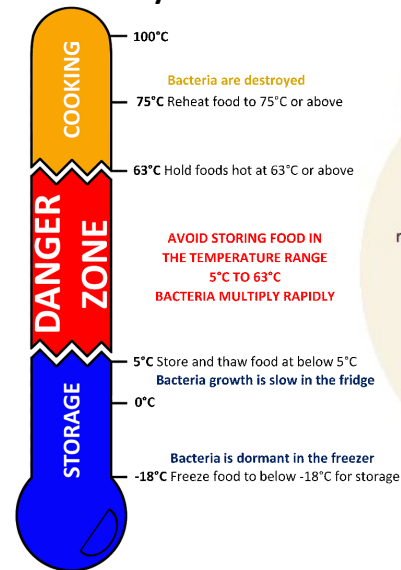
Soliloquy – a monologue spoken by a character on stage, verbalising their inner thoughts for the sake of the audience.

Stichomythia - dialogue in which two characters speak alternate lines of verse.

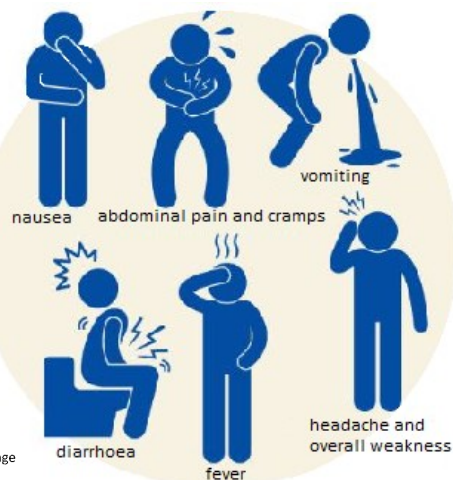
Year 9 - Lifestyle & Choice



Food safety



Food poisoning symptoms



<https://www.youtube.com/watch?v=flxmB8NKMzE>

<https://www.nhs.uk/live-well/eat-well/10-ways-to-prevent-food-poisoning/>

<https://www.food.gov.uk/safety-hygiene/avoiding-cross-contamination>

Food labelling: lots of information is required by law. Storage instructions are particularly important for food safety.



https://www.youtube.com/watch?v=OZOIEYQ0axo&list=PLcvEcrcF_9zlxoGGU59CjuZHciPl9uvGm&index=9&t=2s

Key vocabulary

safety / hygiene / cross-contamination
pathogenic / food poisoning / symptoms
nutrition / hydration / shelf life
perishable / ambient / dormant
ethical / moral / cultural / preferences
allergies / intolerances / life stages

Nutritional needs and health: some

people have special dietary needs based on their age, lifestyle or allergies.



<https://www.youtube.com/watch?v=k5YSJq4iQtI>

Senses: influence our enjoyment of food.



<https://www.youtube.com/watch?v=zNchJla7G0E>

The Eatwell Guide shows the types and proportions of foods people need for a healthy and well-balanced diet.



<https://www.youtube.com/watch?v=7MIE4G8ntss>

<https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/>

<https://www.youtube.com/watch?v=8aWqZd9RScQ>

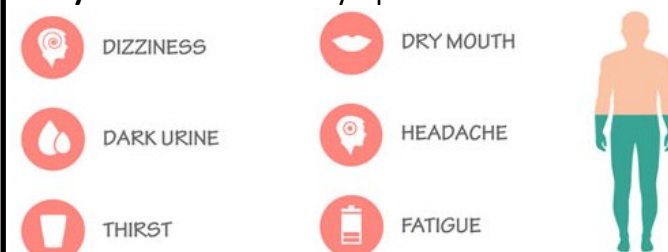
Food choices: a variety of factors influence what we choose to eat.



<https://www.youtube.com/watch?v=D6eor1wkNFY>

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

Dehydration: the main symptoms.



<https://www.youtube.com/watch?v=b7s2Aqj72Q8>

Year 9 - Cooking skills

Equipment

			
Fish slice	Food thermometer	Food processor	Potato masher
			
Wok	Tongs	Electric whisk	Pastry brush

Skills and Processes

Blind baking



Used in: tomato and basil tarts / quiche Lorraine

Dividing and shaping



Used in: burgers, Swedish meatballs

Whisking



Used in: tomato and basil tarts, Swiss roll

Folding and wrapping



Used in: samosas, spring rolls

Key word

Meaning

Denaturation

When protein foods are heated causing them to change size, colour and texture eg. burgers, meatballs, chicken.

Stir-frying

A cooking technique in which ingredients are fried in a small amount of very hot oil while being stirred in a wok

Aeration

The process of incorporating air into a mixture to help provide structure and volume eg. whisking eggs for Swiss roll.

Reduction

Simmering a liquid over heat until it thickens due to evaporation.

Independent skills I need to learn in Year 9

Select the correct colour coded chopping boards to prevent cross contamination.

Use a wide range of preparation and cooking techniques eg. finely dicing, blind baking, whisking, sautéing, shaping, mashing, enrobing, stir-frying etc.

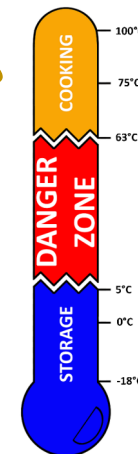
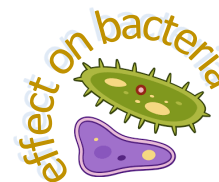
Organise my workspace, remove food waste promptly, clean as I go.

Manage temperature control know when to turn heat up and down accordingly.

Check for readiness using a food thermometer to check the internal

Food safety

Know the **critical temperature** for cooking foods, the effect on **bacteria** and how to **check the core temperature** of meat.



Computing:

Introduction to Python

Python is a **text based programming language**. That can be used to create programs, games, applications and much more!

A **program** is a set of precise instructions, expressed in a **programming language**.
Translating the programming language is necessary for a machine to be able to **execute** the instructions.

To execute a Python program, you need a **Python interpreter**.

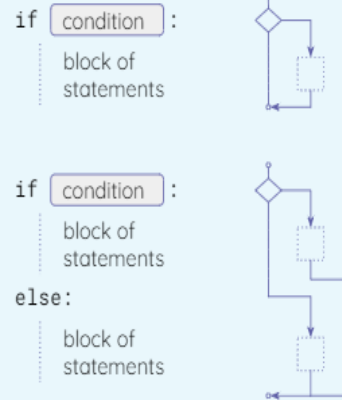
This is a program that translates and executes your Python program.

A **selection** statement allows a computer to **evaluate** whether an **expression** is 'true' or 'false' and then perform an action depending on the outcome.

You will need an **if** or an **if, else**:
 when there is **more than one possible path** for your program to follow.

Syntax Errors

All programming languages have rules for **syntax**, i.e. how statements can be assembled.
 Programs written in a programming language must follow its syntax.
 Programs with **syntax errors** cannot be translated and executed.



Useful snippets of code

print ("Year 9")	Will display the string "Year 9"
input ()	Reads a line of text from the keyboard and returns
variable name = expression	Allows an expression to be assigned to a variable. E.g. year=1944
Name=[item1, item2, item3]	Allows creation of a list e.g. shopping = ["oranges", "apples", "pears"]

Some data types

Whole numbers—**integer**

Yes/no or True/False—**boolean**

Letters, combination of letters, numbers—**string**

Arithmetic operators

+ addition
 - difference
 * multiplication
 / division
 // integer division
 % remainder of integer division
 ** exponentiation (to the power of)

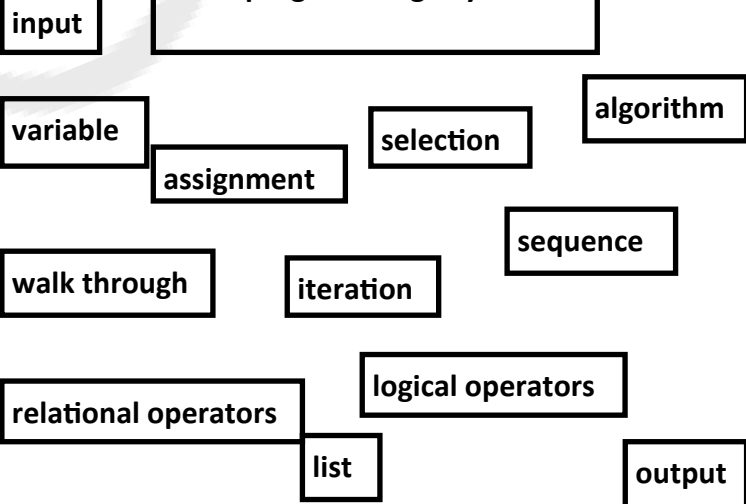
Some common syntax errors in selection

- use if and else—no capitals
- A colon : is always required after the if condition and after else.
- Use **indentation** to indicate which statements 'belong' to the if block and the else block.
- The == operator checks for equality.
- A single = is only used in assignments

You can use multiple branches using **if, elif and else**

Python helps by telling the programmer where the error is.
 So if you see red error text—read it first.

Some programming key terms



YEAR 9 CYBERSECURITY

Cybersecurity looking at common attacks and methods to protect ourselves and our networks against these attacks.

Data: raw facts and figures

Information: data that has been processed and has context

It is the law



Key words

adware	advertises for products a user may be interested in, based on internet history
authentication	verifying the identity of a user or process
auto update	updating software to remove vulnerabilities automatically
biometrics	'password' created from the user fingerprint, iris, retina, facial, voice
blagging	inventing a scenario to obtaining personal information
CAPTCHA	Completely Automated Public Turing Test To Tell Computers and Humans Apart
DoS/DDoS	Denial of Service attack/Distributed Denial of Service
encryption	mathematically converts data into a form that is unreadable without a key
firewall	checks incoming and outgoing network traffic for threats
hacking	gaining unauthorised access to or control of a computer system'
malware	a variety of forms of hostile or intrusive software
penetration testing	testing a network/program for vulnerabilities
pharming	redirecting web traffic to fake websites designed to gain personal information
phishing	messages designed to steal personal details/money/identity
ransomware	virus which locks a computer and encrypts files until a "ransom" is paid
script kiddies	hackers with no technical hacking knowledge using downloaded software
shouldering	directly observing someone enter personal details e.g. PIN number, password.
social engineering	manipulating people so they give up personal/confidential information
spyware	gathers information about a person or organisation without their knowledge
trojans	masquerades as having a legitimate purpose but actually has malicious intent
viruses	self-replicating software attached to another program/file
worms	Replicate and spread through the network

Data Protection Act 2018:

All organisations and people using and storing personal data must abide by the DPA principles . It states how data should be stored/accessed and what rights a data subject has for the protection of their data.

Computer Misuse Act 1990: It is an offence to

- 1.have unauthorised access to computer material
- 2.have unauthorised access with intent to commit or facilitate the commission of further offences
- 3.commit unauthorised acts with intent to impair, or with recklessness as to impairing, the operation of a computer.

Network and System security measures include:



Anti-malware

passwords

Auto updates

Penetration testing

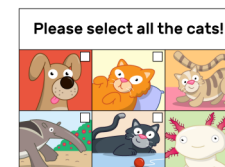
User permissions

firewall

biometrics

User authentication

encryption



Hacking in the context of cyber security is gaining **unauthorised** access to or control of a computer system .

Unethical versus ethical hacking

Penetration testers (pen testers) are people who are paid to legally hack into computer systems with the sole purpose of helping a company identify weaknesses in their system.

URBAN

Brooklyn
Harlem
New York

Cutting mat



TAG:

A tag is the most **basic writing** of an artist's name or nickname.

Key Words:

Mixed Media
Stencil

TAG

Materials

Sources

Craft knife

Taki 183

Banksy

Shepard Fairey

Dashone

Keith Haring

Grid method

Graphite transfer

Research

Analysis

Composition

Proportion

Printing

Style

Technique

Digital

Manipulation

Year 9 Art & Design

SHEPARD FAIREY

Activist, Political,
propaganda, posters,
blue and red, graphic
design, mixed media



Make sure it is always
under your laminate
when cutting

Metal safety rule



Keep hands away from
the side when cutting.

Craft knife



Keep hands away
from blade. Do not
have open on furthest
setting. Close when
not in use.



Artist Research:

Title

Images

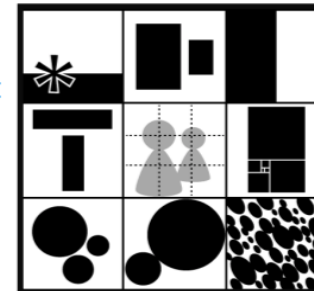
Information

Artist

copy/response

Composition:

The
arrangement
of the visual
elements in
a piece of
art.



Stencilling Process:

1. **Print and laminate your image**
2. **Place your laminated image on a cutting mat**
3. **Carefully cut away the black sections of your stencil**
4. **Masking tape your stencil onto paper making sure it is flat**
5. **Use a sponge and poster paint and dab it carefully over your stencil to create your print**



BANKSY

Stencil, controversial,
anonymous, Flower
Thrower, Girl with Balloon,
spray paint, street art

DASHONE

Mixed media,
monochromatic, bright
colours, neon, celebrities,
hip hop



Artist research
Artist analysis
Artist copy
Artist response

Primary
Secondary
Harmonious
Contrasting
Monochromatic

