Castle View Academy
The best in everyone™
Part of United Learning

'And what, Socrates, is the food of the soul? Surely, I said, knowledge is the food of the soul.' Plato

Year 7

Knowledge Organiser

Autumn Term 2020

This document should be stored in your Knowledge Organiser folder and brought to school every day

What is a Knowledge organiser?	Why do I have to carry my Knowledge Organiser around with me?
A knowledge organiser is a document that sets out the key information you need to understand, learn and memorise in each of the subjects you study this term.	Your teachers may well want you to use your knowledge organisers in lessons. They are yours forever and you may want to annotate or highlight on them when your teacher talks about things in them. They will certainly be used in lessons when you have a cover teacher and you can use them whenever you find yourself with some spare time. You may be asked to use them for homework.
How should I use my knowledge organiser?	**What do I do with my knowledge organiser at the end of term?**
You should use your Knowledge Organiser to learn the key information and commit it to memory. By revisiting the information, you will find it will stay in your long term memory. Your teachers may quiz you on the information in the Knowledge Organiser and much of what is in here will be useful for your ROAs and future learning. The best way of using it is to use the Look, Cover, Write, Check method which you have been shown. Use your self-quizzing book to do this. Always put the date and the subject you are working on in your book.	You don't have to carry your Knowledge Organiser around with you any more but you should keep it somewhere safe where you can easily get it out and use it. Remember that the information on the Knowledge Organiser includes things that you will need to know for your GCSE exams, so your teachers will continue to quiz you on it and you will need to know it for your ROA exams too.
Why is a knowledge organiser important?	
New GCSE specifications mean that students have to memorise more facts, equations, quotations and information than ever before and there are things you will learn right from the start of Year 7 that you will need to know in Year 11 when you sit your GCSE exams – the Knowledge Organiser helps you to identify the things that you need to try and commit to your long term memory and return to over and over again during your time at secondary school. There are also things that it is important you learn about and remember that might not be in a GCSE exam but represents useful knowledge for life.	

Knowledge Organiser – A User's Guide

Your knowledge Organiser is a vital document and that is why it is part of your equipment. It contains all the key things from your lessons that you will need to work on committing to your long-term memory.

The best method to use when you are working on memorising things from your Knowledge Organiser is to self-quiz, using the look, cover, write (in your self-quizzing book) check. Correct your errors in a different colour pen. The more you repeat this, it will then become part of your long term memory. You should repeat and go over the information at regular intervals.

LOOK – Read the piece of information carefully, two or three times.

COVER – Now cover it up.

WRITE – Now try and write down the information you have just read.

CHECK – Did you write the information down correctly? If not, correct with a different colour pen and then repeat!

Keep your self-quizzing book organised. Always out the date and the subject. If you finish your book, please see your Head of Year for a new book and e-praise points – well done.

English – Adventure Writing

Context of *Treasure Island* and Summary

Writer: Robert Louis Stevenson

- The era between 1713 and 1725 became known as 'the golden era' of piracy
- Pirates prowled the Atlantic, Caribbean and Indian oceans, plundering merchant ships

- *Treasure Island* was published in instalments (once a week) from 1881
- Jim Hawkins narrates the story
- The Captain – an old pirate – visits The Admiral Benbow Inn. From this association, Jim embarks on an adventure to find a treasure island, encountering a band of pirates along the way.

The Adventure Genre

The Adventure genre is a style of writing that provokes **excitement** in a reader and involves a protagonist going on an epic journey, personally or geographically.

Conventions of the Adventure genre include:

- The protagonist going on a voyage or journey
- The protagonist showing courage or bravery
- The protagonist may have a mission and may face obstacles before achieving this mission
- The story will involve danger
- Action / quick pace

Story structure

Content	Technique
1. Description of Setting – describe <u>the place</u>	
• The weather • Buildings • Nature • The landscape • The atmosphere	• Zoom in to specific details • Use the weather to dictate the mood • Personify the weather
2. Description of Character – describe <u>the person</u>	
• Describe their clothes • Their voice • Their skin • Their belongings / possessions • How they walk / move • How they talk	• Use Show not Tell: for example: TELL: 'the boy was sad' SHOW: 'a solitary tear trickled down his cheek'
3. Action – describe <u>one moment in time</u>	
• One key event • Verbs to convey quick or violent action • Slow time down and describe every detail carefully • Use punctuation to exaggerate action	• Slow time down • Violent verbs • Punctuation, such as ellipses and exclamation marks
4. Return to Setting – return to the setting and describe <u>a change</u>	
• Something has changed in the setting (the place) after the action • Physical change • Change of perspective	• Personification • Using the weather to dictate the mood • Zooming in • Repetition / cyclic structure

Characters

1. **The Captain/Billy Bones** – The old pirate who comes to Admiral Benbow Inn
2. **Jim Hawkins** – the narrator
3. **Dr. Livesey** – the Doctor who accompanies Jim on the voyage
4. **Long John Silver** – the infamous one-legged pirate who plots against Jim and his comrades
5. **Ben Gunn** – the castaway who has survived on the island
6. **Captain Smollett** – the Captain in charge of the *Hispaniola*

Vocabulary

1. **Vicious** – cruel or violent
2. **Adventurous** – willing to take risks / excitable
3. **Cantankerous** – argumentative, bad-tempered
4. **Plunder** – to steal goods from
5. **Exotic** – from a distant foreign country

Terminology

1. **Genre** – a type of style of writing
2. **Convention** – something you would expect to see in a genre of writing
3. **Narrator** – the fictional character telling the story
4. **Protagonist** – the main character
5. **Antagonist** – the opposing charcater who often brings conflict to the story
6. **Metaphor** – comparing one thing to another and saying it *is* that thing
7. **Simile** – comparing one thing to another using the words 'like' or 'as'
8. **Personificatio**n – giving a non-human object human qualities
9. **Ellipses** – punctuation consisting of three 'dots' (…)

Mathematics - Half Term 1

1. Important numbers

a) One Billion	1 000 000 000
b) One hundred million	100 000 000
c) Ten million	10 000 000
d) One million	1 000 000
e) One hundred thousand	100 000
f) Ten thousand	10 000
g) One thousand	1000
h) One ten***th***	0.1
i) One hundred***th***	0.01
j) One thousand***th***	0.001

2. Using symbols

a) $a < b$ a is less than b

b) $a > b$ a is greater than b

c) $a = b$ a is equal to b

d) $a \neq b$ a is not equal to b

3. Ordering numbers

Ascending: smallest to largest
Descending: largest to smallest

To order numbers:
i. List (aligning the decimal point)
ii. Compare

e.g. 0.0718 [ ] 0.08

0 . 0 7 1 8

0 . 0 8 0 0

0.0718 < 0.08

4. Odd and Even Numbers

a) Even numbers: End in 0, 2, 4, 6, 8
b) Odd numbers: End in 1, 3, 5, 7, 9

5. Square numbers

The first fifteen square numbers are: *1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225.*

6. Addition

a) *e.g. Work out 138 + 43*

```
 1 3 8
   4 3 +
 1 8 1
   1
```

b) *e.g. Work out 1.38 + 4.9*

```
 1 . 3 8
 4 . 9 0 +
 6 . 2 8
   1
```

7. Subtraction

e.g. Work out 4.9 – 1.38

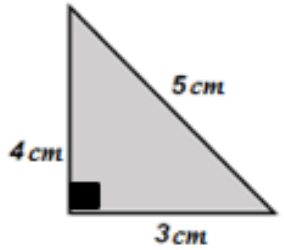
```
   8 1
 4 . 9 0
 1 . 3 8 -
 3 . 5 2
```

Remember: *4.9 – 1.38 ≠ 1.38 – 4.9*

8. Perimeter

a) ***P***erimeter
Plus the sides

e.g.



P = 3 + 4 + 5
= 12cm

b) **Regular Polygons** have:

- Equal side lengths
- Equal angles

Perimeter = (Number of sides) x (length of a side)

9. Rounding

Round to	Circle, Underline, Decide	Answer
Nearest 1000	5 7 8 3 . 1 9 9	≈ 6000
Nearest 100	5 7 8 3 . 1 9 9	≈ 5800
Nearest 10	5 7 8 3 . 1 9 9	≈ 5780
Nearest integer	5 7 8 3 . 1 9 9	≈ 5783
1 d.p.	5 7 8 3 . 1 9 9	≈ 5783.2
2 d.p.	5 7 8 3 . 1 9 9	≈ 5783.20

Science 1

Vocabulary

Cells

Chromosomes – a large piece of DNA.

Concentration gradient – the difference between two solutions at different concentrations.

Differentiation – a genetic process by which cells specialise.

Eukaryotic – a cell with a nucleus.

Meristem – a plant tissue containing stem cells.

Partially permeable membrane – a membrane that only allows certain substances to pass through.

Prokaryotic – a cell without a nucleus.

Specialisation – changes to the structure of cells which support their function.

Stem cells – undifferentiated cells with the potential to form a wide variety of different cell types.

Movement of molecules:

A) **Diffusion** – The movement of particles from an area of higher concentration to an area of lower concentration.

B) **Osmosis** – The movement of water molecules across a **partially permeable membrane** from a less concentrated solution (lots of water molecules) to a more concentrated solution (fewer water molecules).

C) **Active transport** – The movement of particles from a lower concentration to a higher concentration, against the **concentration gradient** in a process which requires energy.

Organelles:

1) **Cell membrane –** controls the movement of material into and out of the cell.
2) **Cell wall –** supports and protects the cell.
3) **Chloroplasts –** organelle which contains chlorophyll and produces glucose through photosynthesis.
4) **Cytoplasm –** where the chemical reactions of the cell happen.
5) **Mitochondria –** release energy from glucose through respiration.
6) **Nucleus –** contains the genetic information of the cell.
7) **Permanent vacuole –** contains cell sap and supports the cell.
8) **Plasmid –** a small ring of DNA.
9) **Ribosome –** synthesise (produce) protein.

Knowledge

Mitosis

The part of the cell cycle where one set of new chromosomes is pulled to each end of the cell forming two identical nuclei during cell division. This is the type of cell division which occurs in nearly all cells in the body and is used for growth and repair.

Meiosis

The two stage process of cell division that reduces the chromosome number of daughter cells. This is the type of cell division which only occurs in the ovaries and testes. It is involved in making gametes for sexual reproduction.

Binary fission

A simple process of cell division and growth used for reproduction by bacteria amongst others.

Microscopy calculations

$$Image\ size = Real\ size \times magnification$$

$$I = R \times M$$

$$I = 0.0015mm \times 2500$$

$$I = 3.75mm$$

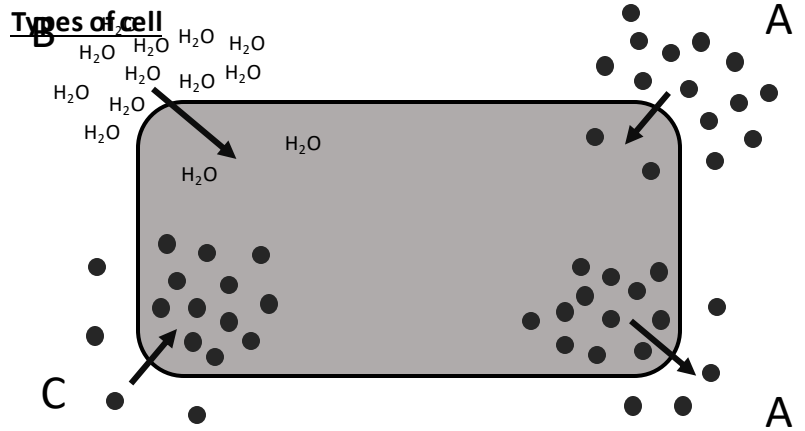
The size a cell appears when viewed with a microscope may be calculated from the real size of the cell and the magnification of the microscope using the above equation. It is important to read the values carefully when using this equation – look at the section below about changing between different sizes of units.

Changing units

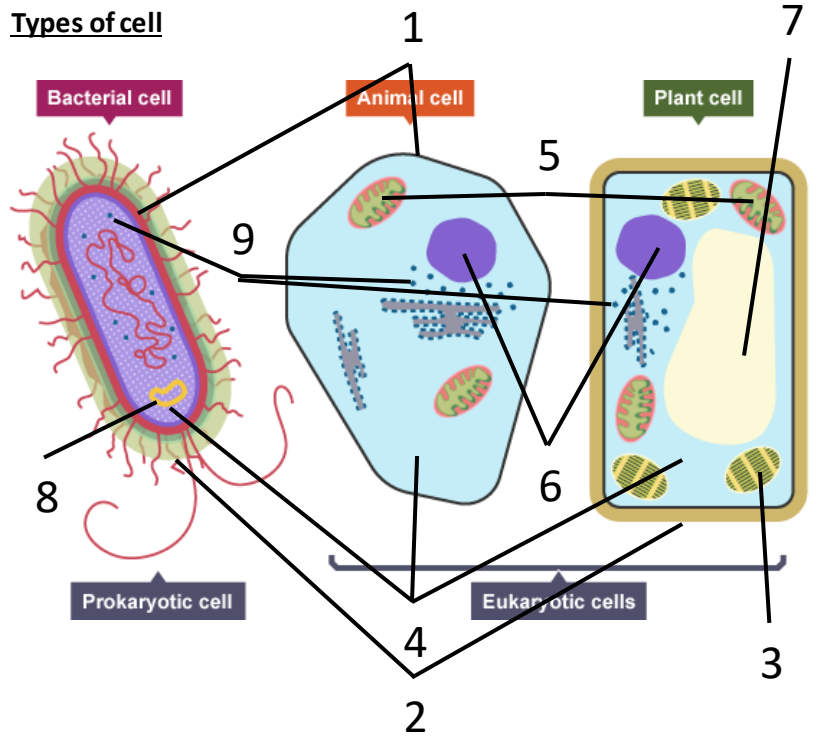
Prefix	Symbol	Size
Kilo(metres)	km	1km = 1000m
Metres	m	1m = 1m
Milli(metres)	mm	1mm = 0.001m
Micro(metres)	µm	1µm = 0.001mm
Nano(metres)	nm	1nm = 0.001µm

Diagrams

Types of cell



Types of cell



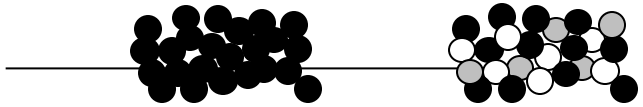
Science 2

Particles

Concentration – the amount of a substance dissolved in a given volume of liquid.
Condensing – the change of state as a gas turns into a liquid caused by the decrease in movement as the energy of the particles decrease.
Dissolve – to break up into very small particles and mix with a liquid.
Evaporating – the change of state as a liquid turns into a gas caused by the increase in movement as the energy of the particles increase.
Fluid – a substance in which the particles are able to flow such as a liquid or gas.
Freezing – the change of state as a liquid turns into a solid caused by the decrease in movement as the energy of the particles decrease.
Melting – the change of state as a solid turns into a liquid caused by the increase in movement as the energy of the particles increase.
Mixture – two or more different types of particle together which are not chemically bonded (linked).
Pure – a substance which contains only one type of particle.
Solute – the solid which dissolves when forming a solution, for example the sugar in tea.
Solution – a mixture containing a liquid (solvent) and a dissolved solid (solute).
Solvent – the liquid in which a solid dissolves when forming a solution, for example the water in a cup of sweet tea.

Pure or mixture?

Substances which contain particles which are not chemically bonded (linked) can be described as pure or a mixture. A pure substance contains only one type of particle while a mixture contains two or more types of particles which may be separated.



Dissolving

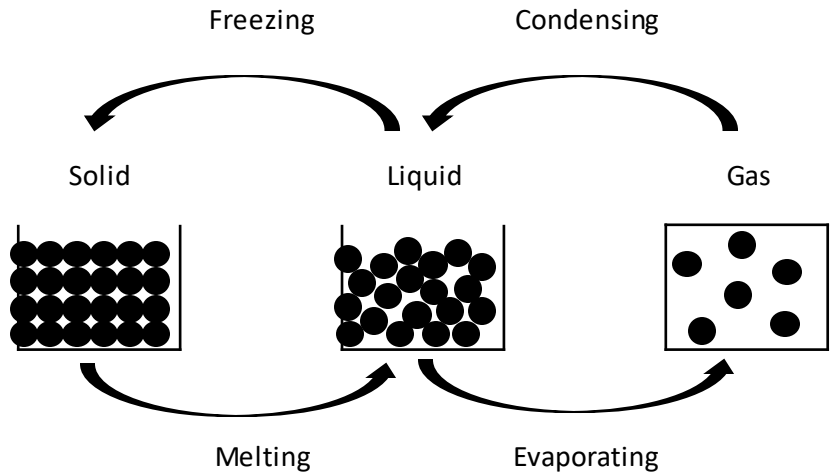
This occurs when the particles in a solid break up into smaller particles which cannot be seen by eye and mix with a liquid. When a substance dissolves it won't change your ability to see through a liquid but may change it's colour.

Separating mixtures

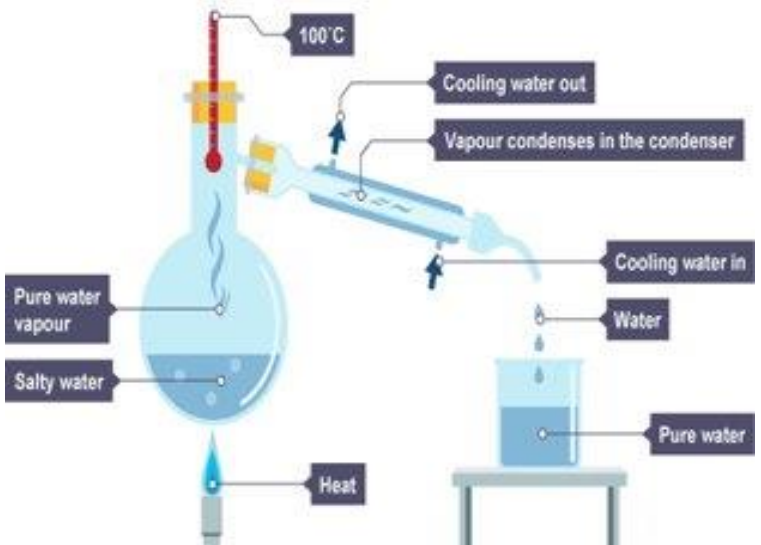
There are four main methods to separate mixtures, the choice of method depends on what type of mixture you are working with.

1. Chromatography – used to separate two or more dissolved substances.
2. Distillation – used to separate the solvent from the solute in a solution (see diagram).
3. Evaporation – used to separate the solute from the solvent in a solution.
4. Filtration – used to separate a liquid and an insoluble solid.

States of matter



Distillation



Particle…	Solid	Liquid	Gas
Arrangement	Regular, touching	Irregular, touching	Irregular, not touching
Movement	Vibrate	Slide past each other	Random
Energy	→ Increasing →		
Density	→ Decreasing →		

States of matter

Science 3

Energy

Conduction – the movement of energy through a material by particle to particle contact.
Conductor – a material through which energy can pass easily, usually because the particles are easily able to make contact.
Convection – Energy transfer by rising hot liquids or gases due to differences in density.
Density – the amount of mass (stuff) within a given volume (3D space).
Efficiency – a measure of how effective a device is at transferring energy to the intended store.
Insulator – a material which stops or slows the transfers of energy.
Joule – the unit of energy, shown as J.
Power – a measure of how quickly a device transfers energy.
Radiation – the transfer of energy from one material to another through waves without needing particles.
Useful energy – energy transferred to the store/s intended.
Wasted energy – energy transferred to the store/s other than those intended.
Watts – the unit of power, shown as W.

Energy stores – the ways or places in which energy may be kept within an object or particle. There are eight of these:

Chemical	Kinetic
Elastic potential	Magnetic
Electrostatic	Nuclear
Gravitation	Thermal

Energy pathways – the ways in which energy can move between stores. There are four of these:

Electrically	Heating
Doing work	Lighting

Power calculations

The power of a device or appliance may be calculated using the following equation:

$$Power = Energy\ trasnferred \div time\ taken$$
$$P = E \div t$$

Conservation of energy

The law of conservation of energy states that energy cannot be created or destroyed it can only be transferred between stores.

This means that if you start with 100J of energy there will still be 100J of energy at the end, it may just be in different stores. If you appear to have lost energy it usually means you have forgotten about a store.

Density

An object with more mass (stuff) in the same volume (3D space) as another object has a greater density.

Higher density | Lower density

Efficiency

The efficiency of a device or appliance may be calculated using the following equation:

$$percentage\ efficiency = \frac{useful\ energy\ transferred}{total\ energy\ transferred} \times 100$$

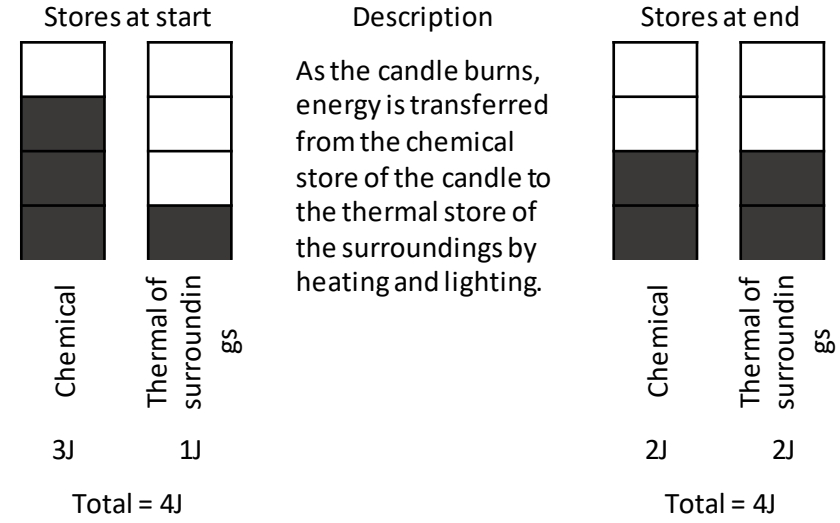
Converting units

We often have very large numbers for energy and power so we use certain prefixes and letters in our units which allow us to write less digits but still show the same number

- Kilo (K) means 1000 so 1000J = 1KJ
- Mega (M) means 1000000 so 1000000J = 1000KJ = 1MJ

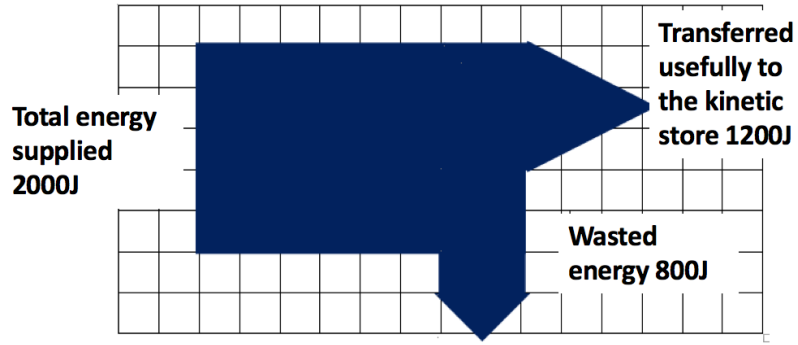
Energy accounts

Energy accounts can help in keeping track of the amount of energy in different stores and the pathways by which it transfers between them.

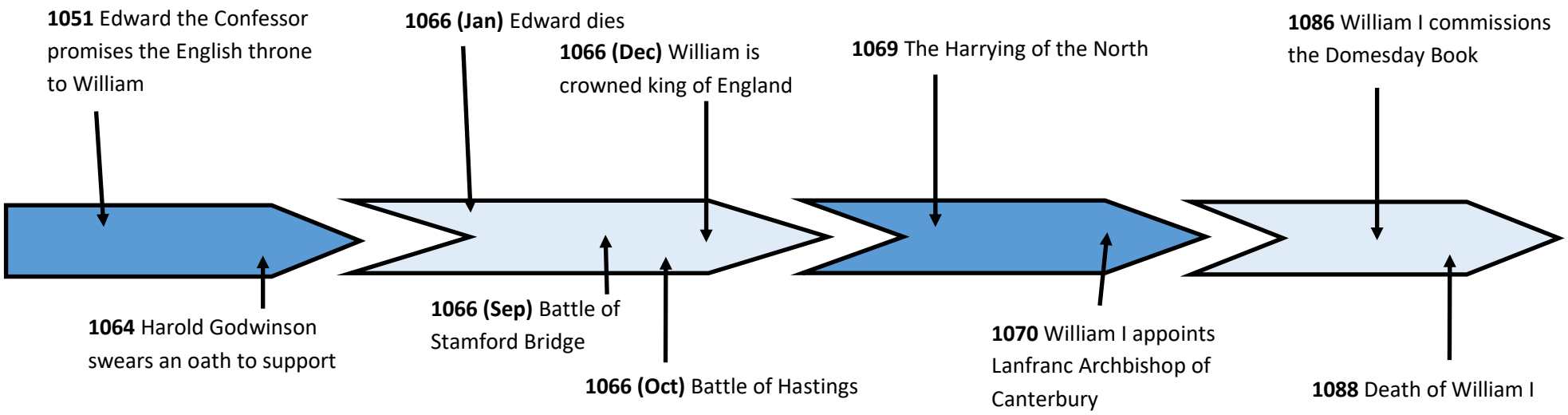


Sankey diagrams

Sankey diagrams show the movement of energy through between stores. Energy enters on the left. Useful energy leaves to the right and wasted energy leaves the bottom. The width of the arrows shows the amount of energy.



HISTORY - The Norman Conquest



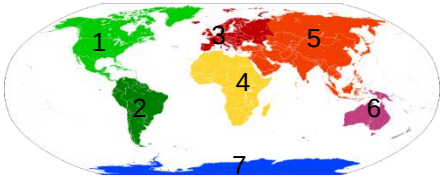
Key People:	
Edward the Confessor	An Anglo-Saxon king whose death triggered the Norman invasion of England in 1066
Harald Hardrada	A warrior Viking king who made a claim for the English throne in 1066
Harold Godwinson	The last Anglo-Saxon king who was killed at the Battle of Hastings in 1066
William, Duke of Normandy	A French duke who conquered England in 1066, becoming William I, king of England

Keywords:		
AD Anno Domini, the years before Christ was born	**Coronation** A ceremony where the king is officially crowned	**Motte and Bailey Castle** A simple castle with a man-made hill surrounded by a clear defensive area
Anglo-Saxons tribes that invaded England from 400 AD	**Domesday Book** A book ordered by William detailing the possessions of every village and town in England	**Normans** William's nobles brought over from Normandy
Archbishop The most senior and powerful churchmen in the country	**Feudal System** The structure of medieval society	**Oath** A sacred promise witnessed by God
Baron The highest rank of medieval society	**Fortification** A building to defend against attack	**Peasant** The majority of Englishmen, at the bottom of the Feudal System, who had to work the land for their lord
Bayeux Tapestry A cloth depicting William's conquest	**Fyrd** Anglo-Saxon part-time soldier	**Revolt** To fight in a violent manner against a ruler
BC Before Christ, the years before Christ was born	**Harrying** To repeatedly attack somewhere or someone	**Shield Wall** A barrier created by soldiers with their shields
Cathedral A large and impressive church in which a bishop is based	**Hierarchy** A form of social structure where people are ranked according to their status, from highest to lowest	**Succession** A new monarch taking over the throne from the last monarch
Cavalry Group of soldiers who fought on horseback	**Huscarls** Professional Anglo-Saxon soldiers	**Survey** To examine or investigate somewhere
Chronology the order that past events happened in	**Illegitimate** Someone born outside of marriage	**Tactic** A carefully planned strategy in battle
Claimant one of three challengers to the throne in 1066	**Knight** Soldiers on horseback who belonged to the nobility	**Viking** Seafaring warriors and invaders from Scandinavia
Clergy Men who worked within the church e.g. priests, bishops, archbishops, monks	**Monarch** King or queen of a country	**Witan** Collection of Anglo-Saxon noblemen who advised the king

Background

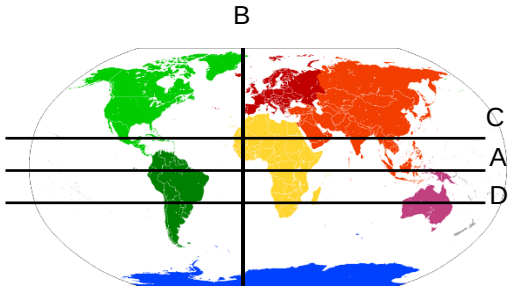
1. Geography is the study of the Earth's natural features. It is also about people and places and how they affect one another. ***(C)***
2. In geography maps are important. World maps show the location of the continents and oceans. ***(A, B, D)***
3. The UK is made up of 4 countries. ***(E)***
4. Maps are made up of different parts, OS maps are the most widely used in the UK, and can show the height of the land. ***(F,G, H)***

A. Continents *(7)*



1	North America.	5	Asia.
2	South America.	6	Oceania.
3	Europe.	7	Antarctica.
4	Africa.		

B. Lines of a global maps *(4)*

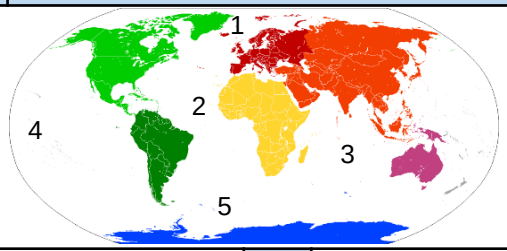


A	Equator.	C	Tropic of Cancer.
B	Prime Meridian.	D	Tropic of Capricorn.

C. Types of Geography *(2)*

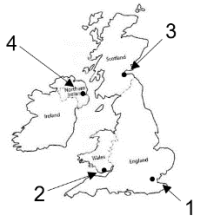
Human	Studying what people do to the Earth.
Physical	Studying what is naturally occurring on Earth.

D. Oceans *(5)*



1	Arctic Ocean.	4	Pacific Ocean.
2	Atlantic Ocean.	5	Southern Ocean.
3	Indian Ocean.		

E. Geography of the UK *(4)*



1	London, England.
2	Cardiff, Wales.
3	Edinburgh, Scotland.
4	Belfast, Northern Ireland.

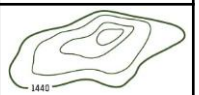
F. Parts of a map *(6)*

Latitude	How far north or south a place is from the equator.
Longitude	How far east or west a place is from the Prime Meridian.
Scale	A length on the map, in real life.
Altitude	Height above sea level.
Compass	Used to show direction on maps.
Distance	How far two places are from one another.

G. OS maps *(13)*

Ordnance survey	The organisation that produces the maps that are most widely used in the UK.
	Bus station.
	Railway (train) station.
	Place of worship.
	Information point (for help).
	Deciduous Trees.
	Coniferous Trees.
	Youth Hostel.
	Museum.
Sch	School.
PO	Post Office.
	View point (good view from here).
	Campsite.

H. Contour Lines *(3)*

a. What are they?	Lines that show the height and shape of land.	
b. How do they show steep hills?	Lots of contour lines close together.	
c. How do they show sloping hills?	Contour lines far apart.	

Geography: Development

Background:

1. Across the world the standard of living and quality of life can be very different.
2. Countries therefore have different classifications, based on the quality of life within them. ***(A)***
3. How developed a country is can be measured in different ways. ***(B)***
4. Development is not haphazard and there are many reasons why some countries are more developed than others. ***(C)***
5. World-wide a number of strategies have been put in place to help improve the quality of life in some of the poorer nations; such as aid and Fairtrade. ***(D, E, F)***
6. Aid strategies can have much success. ***(G)***

A.	**Country classification *(3)***
Developed country	Normally has lots of money, many services and a high standard of living.
Developing country	Often quite poor compared to others, fewer services and a lower standard of living.
The Brandt line	An imaginary line which divides countries into the rich north, poor south.

B.	**Measuring development *(6)***
Gross Domestic Product per capita (GDP per capita)	The total number of goods and services sold by a country, divided by it's population.
Infant mortality	The number of babies that die per 1000 before their first birthday.
Life expectancy	The average age you are expected to live to in a country.
Literacy rate	The % of people that can read and write.
People per doctor	The number of people to one doctor.
Human Development Index	Combines GDP per capita, life expectancy and literacy rate.

C.	**Factors influencing development**
Development	How rich or poor a country is compared with other areas.

Factors which encourage development *(4):*	**Factors which hinder development *(4):***
1. A strong and stable government. 2. A large coastline for trade. 3. Availability of natural resources e.g. oil, coal, fertile soil etc. 4. A pleasant climate, ideal for growing crops.	1. An unstable or corrupt government, meaning money is not invested properly in the country. 2. The country is landlocked, making trade difficult. 3. Few natural resources to power industry. 4. A harsh climate, so can not grow crops reliably.

D.	**What is aid? *(6)***
Donor	A country that gives aid to another country.
Recipient	A country which receives aid.
Bilateral	International aid given by one country to another.
Multi-lateral	Aid given by NGOs (Non-Government Organisations) like the Red Cross or Oxfam.
Short term aid	Aid given to support a country following a crisis e.g. after an earthquake.
Long term aid	Aid given over a prolonged period of time to support a country's development e.g. teaching farmers different farming techniques.

E.	**Aid - advantages/ disadvantages**
Advantages *(3)*	1. People learn new skills e.g. improved farming techniques; so become independent 2. Can save lives after a natural disaster e.g. supplying clean water, food and medicines. 3. Simple technology e.g. water pumps, are easy for the locals to maintain.
Disadvantages *(3)*	1. Countries can become dependent upon aid, causing problems if it is removed. 2. Corrupt governments can sell the aid on, so it does not reach those in need. 3. The recipient can end up in debt if loans or deals are made.

F.	**Fairtrade**
What it is:	Trade which involves giving producers in developing countries a fair price for their goods.

Advantages *(2)*	**Disadvantages *(2)***
1. Farmers receive a fair and decent price. 2. Ensures good working conditions for farmers.	1. Non-Fairtrade farmers may lose out. 2. Sales can often be low as the price of Fairtrade goods can be high.

G.	**Case study: Tree aid**
Where?	In countries along the Sahel across northern Africa e.g. Mali.

Features *(2)*	**Success *(2)***
1. Tree seeds given, so people can develop tree nurseries. 2. Bikes and donkey carts given.	1. Reliable food source e.g. cashew nuts. 2. Money made from the sale of cashew nuts can be used to send children to school.

Geography: Rivers

Background:

1. Rivers affect the landscape and the lives of people who live near them.
2. Rivers are found within their own drainage basin and have their own distinct features. ***(A)***
3. As a river moves from it's source in the upper course, to it's mouth in the lower course, it's profile changes. ***(B)***
4. There are many different river processes which can impact the landscape. ***(C, D)***
5. Processes of erosion and deposition can lead to the formation of different river landforms. ***(E, F, G)***
6. Flooding is a key feature of rivers, and drainage basin processes play a significant role in this. By altering the drainage basin of a river, we can interfere with these processes. ***(H)***
7. There are many famous examples of floods. Today many strategies have been put in place in an attempt to manage the flood risk. ***(I)***

A.	**Drainage basin features *(6)***
Drainage basin	An area of land drained by a river and its tributaries.
Source	The start of a river.
Mouth	Where the river enters the sea or lake.
Tributary	A small river than joins a larger river.
Confluence	The point at which two or more rivers meet.
Watershed	The dividing line between two drainage basins.

B.	**River profile *(3)***
Upper course	The narrow, steep, upper part of a river, contains waterfalls.
Middle course	The wider, deeper channel, contains meanders and ox-bow lakes.
Lower course	The widest, flattest part of the river, near the mouth, contains the floodplain.

C.	**Types of erosion *(4)***
Hydraulic action	The sheer force of the river causing the bed and banks to erode.
Abrasion	Material carried by the river erodes by scraping along the bed and banks.
Attrition	Eroded material carried by the river, hits into each other breaking down into smaller pieces.
Solution	The acids in the water causing erosion.

E.	**Waterfall – upper course *(2)***
Plunge pool	A pool which forms at the bottom of a waterfall, undercutting the hard rock above.
Gorge	A steep sided valley left behind when a waterfall retreats up stream.

F.	**Meander – middle course *(2)***
Slip off slope	The sloping bed of a meander, from the inside (shallow) to the outside (deep).
River cliff	The undercut bank on the outside bend of a meander.

G.	**Floodplain – lower course *(2)***
Silt	The fertile, eroded material transported by a river.
Levees	Banks found at the side of a river in the lower course.

D.	**Other river processes *(5)***
River load	The material which the river is transporting.
Transportation	The movement of material by the river.
Deposition	When a river loses energy so drops it's load.
Lateral erosion	When erosion moves across the land, causing the bends of meanders to widen.
Vertical erosion	Erosion which takes place downwards into the land.

H.	**Drainage basin processes *(6)***
Precipitation	Liquid that falls from the sky e.g. rain, snow, hail.
Interception	When the leaves of trees stop precipitation reaching the ground.
Surface run-off	The movement of water overland back into a river.
Surface storage	Water stored on the surface in lakes or puddles.
Infiltration	The movement of water from the surface into the soil.
Through flow	The movement of water through the soil back into the river.

I.	**Case study example: Boscastle**
Where/ when?	Cornwall in the south west of the UK, happened in August 2004. A tourist destination.

Cause *(3)*	**Effect *(4)***	**Response *(3)***
1. Very heavy rainfall, 89mm in just 1 hour. 2. Steep slopes of Bodmin Moor caused surface run-off. 3. Impermeable ground meant precipitation could not infiltrate.	1. 25 businesses ruined, costing £25 million in lost trade. 2. Four bridges destroyed. 3. Homes damaged costing £500 million to repair. 4. 75 cars washed away.	1. Immediate - seven helicopters sent in to rescue people from the roofs of buildings. 2. Long term – river widened and deepened. 3. Long term - bridges made wider.

Geography: World of work

Background:

1. The world of work can be classified into four different employment sectors. ***(B)***
2. Many factors influence the type of employment sector which will be found within a particular country. ***(C)***
3. Furthermore, industrial location is influenced by some key factors, which are more important for some industries in comparison to others. ***(D)***
4. Employment structure within countries varies based upon the level of development. ***(E)***
5. However, employment structures are not fixed, just like in the UK they can change overtime. ***(F)***
6. Tourism is a rapidly growing tertiary industry world-wide. ***(G)***
7. Tourism can bring both positive and negative impacts for the host country. ***(H)***

A.	**Classifications of employment *(2)***
Employment	When people are in work, receiving a wage and paying tax.
Unemployment	When people are not in work, therefore do not receive a wage and do not pay tax.

B.	**Different employment sectors *(4)***
Primary sector	Industries which collect raw materials such as; farming, logging, oil rigging, mining, quarrying etc.
Secondary sector	Industries which manufacture goods into products such as; car manufacturers, food processing plants, toy assembly plants, builders etc.
Tertiary sector	Industries which provide a service such as; teaching, accounting, health care, sales assistants etc.
Quaternary sector	Defined as hi-tech, research and design. They include hardware and software engineers and pharmaceutical companies.

C.	**Influences on employment structure *(5)***
Imports	Goods brought into a country.
Exports	Sending goods to another country for sale.
Industrialisation	When a country begins to move from primary employment to secondary employment, with a rise in manufacturing.
Mechanisation	When machinery begins to do the jobs which once required humans.
Disposable income	The money a person has left to spend after they have paid all of their bills.

D.	**Factors which influence the location of industry *(5)***
Raw materials	Natural resources that are used to make things.
Transport links	The links which allow goods and workers to be transported in and out of industries.
Labour	Workers, employed people.
Market	A place where raw materials or goods are sold.
Footloose	Industries which are not tied to a location due to natural resources or transport links.

E.	**Employment structure differences *(3)***
Developing countries	Large primary sector, growing secondary sector and a moderate tertiary sector.
Emerging countries	They have a large secondary sector, rapidly falling primary sector and growing tertiary sector.
Developed countries	A large tertiary sector, a growing quaternary sector, both secondary and primary employment is low.

F.	**Employment structure change in developed countries**
Falling primary and secondary sector *(3)*	1. Cheaper to import. 2. Mechanisation has taken jobs. 3. Raw materials have been exhausted in certain areas.
Growing tertiary sector *(2)*	1. Disposable income has increased, so a greater demand for services. 2. A large public sector e.g. health and education, due to a high tax revenue.

G.	**Features of tourism *(3)***
Tourist	A person who is visiting a place for pleasure.
Positive multiplier effect	The introduction of a new industry in an area also encourages growth in other industrial sectors, leading to further growth.
Butler model	Shows how tourist resorts go through six stages, from discovery, growth, success, stagnation to rejuvenation or decline.

H.	**Tourism in Kenya**
Where?	The Maasai Mara National Reserve, in southern Kenya.

Positive *(3)*:	**Negative *(4)*:**
1. Tourism provides 11% of Kenya's GDP. 2. The National Reserve is protected, saving many animals e.g. cheetahs. 3. Large infrastructure projects have been funded by overseas companies e.g. new road networks.	1. Mini-buses are driving across the Savanah. 2. Shadows from hot air balloons are scaring the wildlife. 3. Only 2% of the profit stays with the local people, much is lost to tour companies. 4. Animals are being fed by tourists, which is stopping them from hunting, impacting the food chain.

Spanish

My life *Mi vida* - Question to be answered in Spanish

- ¿Qué tal? *How are you?*
- ¿Cómo te llamas? *What is your name...?*
- ¿Dónde vives? *Where do you live?*
- ¿Qué tipo de persona eres? *What sort of person are you?*
- ¿Tienes hermanos? *Do you have brothers or sisters?*
- ¿Cuántos años tienes? *How old are you?*
- ¿Cuándo es tu cumpleaños? *When is your birthday?*
- ¿Tienes mascotas? *Do you have pets?*
- ¿Cómo es/son? *What is it/they like?*

Key structures

- Bien, gracias *good, thanks*
- Me llamo ... *I am called ...*
- Vivo en ... *I live in ...*
- Tengo ...años *I am ... years old*
- Mi cumpleaños es el ... de ... *My birthday is the ... of ...*
- Tengo *I have*
- Soy *I am*

Months

- Enero – January
- Febrero – February
- Marzo – March
- Abril – Abril
- Mayo – May
- Junio – June
- Julio – July
- Agosto – August
- Septiembre – September
- Octubre – October
- Noviembre – November
- Diciembre - December

Animals

Una cobaya – a guinea pig
Un conejo – a rabbit
Un gato – a cat
Un perro – a dog
Un pez – a fish
Un ratón – a mouse
una serpiente – a snake
No tengo mascotas – I don't have any pets

Useful little words

- bastante *quite*
- mi/mis *my*
- muy *very*
- pero *but*
- también *also*
- un poco *a bit*
- y *and*
- hay *there is/are*

Numbers

- Uno 1
- Dos 2
- Tres 3
- Cuatro 4
- Cinco 5
- Seis 6
- Siete 7
- Ocho 8
- Nueve 9
- Diez 10
- Once 11
- Doce 12
- Trece 13
- Catorce 14
- Quince 15
- Diecisiete 17
- Dieciocho 18
- Diecinueve 19
- Veinte 20
- Veintiuno 21
- Veintidós 22
- Veinititrés 23
- Veinticuatro 24
- Veinticinco 25
- Veintiséis 26
- Veintisiete 27
- Veintiocho 28
- Veintinueve 29
- Treinta 30

Adjectives

- divertido *fun*
- estupendo *brilliant*
- fenomenal *fantastic*
- generoso generous
- genial *great*
- guay *cool*
- listo *clever*
- serio *serious*
- simpático *nice*
- sincero *sincere*
- tímido *shy*

Family

Un hermano – a brother
Una hermana – a sister
Un hermanastro – a stepbrother
Una hermanastra – a stepsister
No tengo hermanos – I don't have any brothers or sisters
Soy hijo/a único/a – I am an only child

Colours

Blanco – white
Amarillo – yellow
Negro – black
Rojo –red
Rosa – pink
verde - green
gris - grey
marrón - brown
azul – blue
naranja - orange

Ethics – Creation

1. Genesis 1: Creation	
Ex nihilo	God created the universe *out of nothing.*
6 days	God created the world in 6 days and rested on the 7th.
Yom	The Hebrew word for 'day'/'age'/'period of time'.
Pinnacle	Humans were created last as the pinnacle of creation.

2. Genesis 2: Creation of Humans	
Imago Dei	Humans were created in *the image of God.*
Adam	Made from 'dust of the ground'.
	God gave Adam a soul – 'the breath of life'.
Eve	Eve was made from Adam's rib.
	God made her as a 'companion' for Adam.
Command	Adam and Eve were told **not** to eat from the Tree of Knowledge of Good and Evil.

3. Genesis 3: The Fall	
Temptation	Eve was tempted to disobey God by the Devil.
Punishment	God punished Adam and Eve. The relationship between humans and God was broken.
Original Sin	The sin that all humans are born with because of Adam and Eve's actions.

4. The Big Bang	
13.8 billion years	Scientists believe the universe started 13.8 billion years ago.
Expanding	The universe has been expanding from a *singularity* ever since.
George Lemaitre	George Lemaitre was the first scientist to propose this theory.

5. Evolution	
Evolution	The theory which says creatures develop from earlier, less complex forms of life.
Charles Darwin	Darwin developed the theory in his 1859 book *On the Origin of Species*.
Survival of the fittest	Creatures that are best adapted to their environment survive and pass on their characteristics.
Natural selection	The process by which creatures pass on to their offspring characteristics that will help them survive.

6. Different Interpretations of Genesis	
Literal interpretation	The Genesis creation story is *word-for-word* true. The world was created in 6, 24-hour days.
	The Big Bang and Evolution are incorrect theories.
Liberal interpretation	The Genesis story can be interpreted in different ways, like a *metaphor*.
	Perhaps the universe was created in 6 *periods of time (yom)* adding up to 13.8 billion years, when the Big Bang happened.

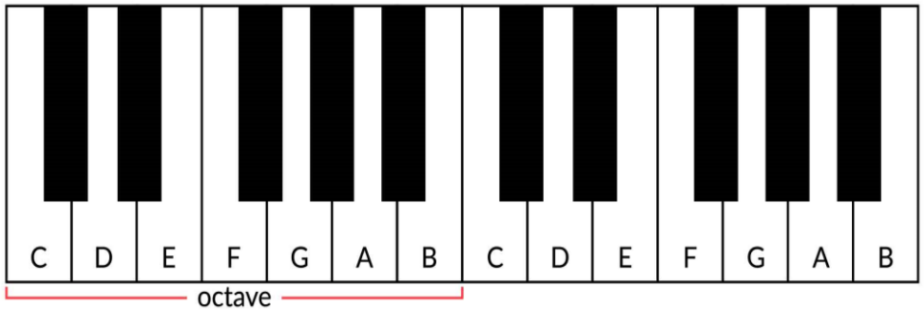
Key Words			
Genesis	The first book of the Bible containing the creation stories.	Original Sin	The sin that all humans are born with because of Adam and Eve's actions.
Ex nihilo	God created the world *out of nothing*.	Literal interpretation	The Bible is word-for-word true.
Imago Dei	God created humans in *His own image* and with a soul.	Liberal interpretation	The Bible can be understood in different ways, like a metaphor.

Music - Keyboard Skills

KEYBOARD SKILLS

Exploring Treble Clef Reading and Notation

A. Layout of a Keyboard/Piano

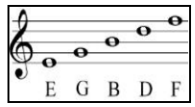


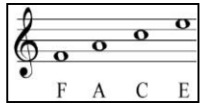
A piano or keyboard is laid out with **WHITE KEYS** and Black Keys (see section G). C is to the left of the two Black Keys and the notes continue to G then they go back to A again. Notes with the same letter name/pitch are said to be an **OCTAVE** apart. **MIDDLE C** is normally in the centre of a piano keyboard.

B. Treble Clef & Treble Clef Notation

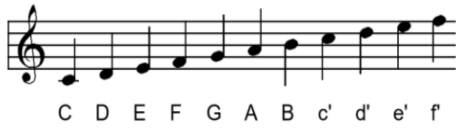
A **STAVE** or **STAFF** is the name given to the five lines where musical notes are written. The position of notes on the stave or staff shows their **PITCH** (how high or low a note is). The **TREBLE CLEF** is a symbol used to show high-pitched notes on the stave and is *usually* ised for the right hand on a piano or keyboard to play the **MELODY** and also used by high pitched instruments such as the flute and violin. The stave or staff is made up of 5 **LINES** and 4 **SPACES**.

Every **G**reen **B**us **D**rives **F**ast. Notes in the **SPACES** spell **"FACE"**





Notes from **MIDDLE C** going up in pitch (all of the white notes) are called a **SCALE**.

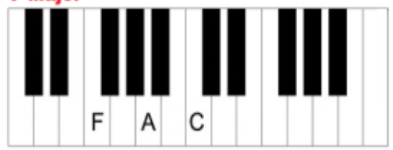


C. Keyboard Chords

C Major

G Major

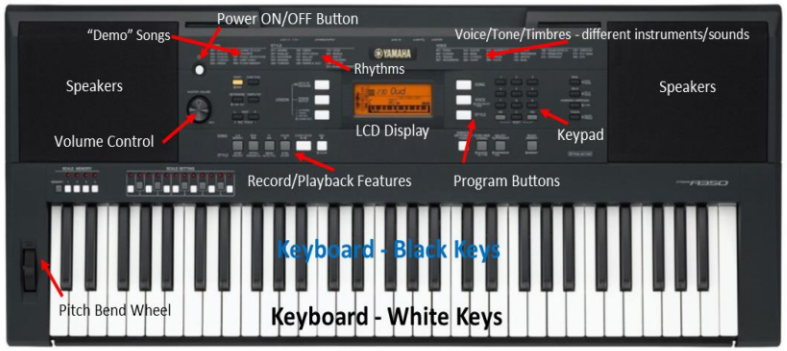
F Major



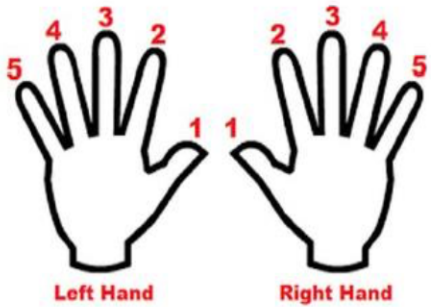
A Minor

Play one – Miss one – play one – miss one – play one

D. Keyboard Functions

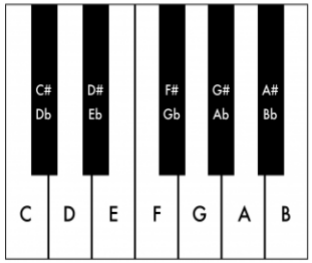


E. Left Hand/Right Hand (1-5)



F. Black Keys and Sharps and Flats

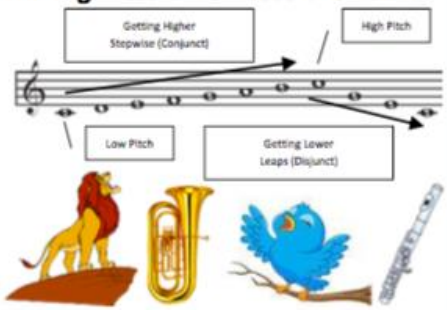
There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches. Each one can be a **SHARP** or a **FLAT**. The # symbol means a **SHARP** which raises the pitch by a semitone *(e.g. C# is higher in pitch (to the right) than C)*. The *b* symbol means a **FLAT** which lowers the pitch by a semitone *(e.g. Bb is lower in pitch (to the left) than B)*. Each black key has 2 names – C# is the same as D*b* – there's just two different ways of looking at it! Remember, black notes or keys that are to the **R**IGHT of a white note are called SHA**R**PS and black notes to the **L**EFT of a white note are called F**L**ATS.



Music 1

Pitch	Tempo	Dynamics	Duration

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



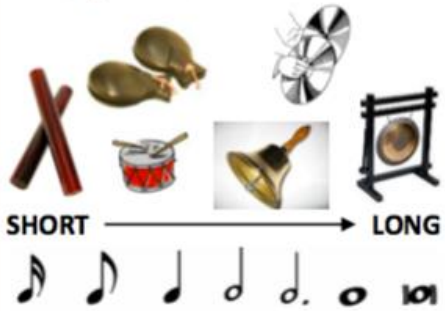
The **speed** of a sound or piece of music.

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

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

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

The **length** of a sound.



Texture	Timbre	Articulation	Silence

How much sound we hear.
THIN TEXTURE: *(sparse/solo)* – small amount of instruments or melodies.

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

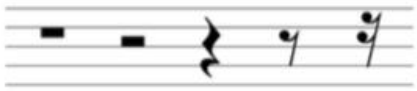
Describes the **unique sound or tone quality** of different instruments voices or sounds.

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

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

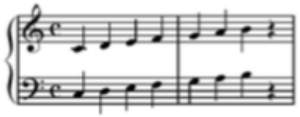
LEGATO – playing notes in a long, smooth way shown by a **SLUR**.
STACCATO – playing notes in a short, detached, spiky way shown by a **DOT**.

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



Notation

How music is **written** down.
STAFF NOTATION – music written on a **STAVE** (5 lines and spaces)



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

Food Skills and Nutrition

	Class Rules
1.	*Wait to be invited in*
2.	*Walk to your seat*
3.	*Do not enter the practical space until invited to do so*
4.	*No running*
5.	*No eating or chewing*
6.	*Always try your hardest*
7.	*Have Fun!*

	Practical Rules
1.	*Store ingredients in fridge before roll call on the day of your practical lesson*
2.	*Clean aprons on*
3.	*Long hair tied back*
4.	*Jewellery removed*
5.	*Handwash and sanitise area*

Intro To Food Skills - Key Words	
HYGIENE	Ensuring that yourself and your work-station are clean and safe to begin practical work
HEALTH & SAFETY	Ensuring that you are safe in the practical areas and not causing any danger to yourself or others
PREPARATION	Ensuring that your work space is clutter-free and that you have all the equipment laid out in the order in which it will be used
BRIDGE	Gripping your ingredients with your fingers and thumb to allow you to cut through the centre without slipping, when slicing.
CLAW	Using your closed fingers to guide your knife when dicing fruits, vegetables and other ingredients.
BOIL	Increasing the heat of liquids on the hob to 100 degrees to begin the cooking process.
SIMMER	Decreasing the heat to continue the cooking process at a more controlled rate, over a sustained period of time.
Healthy Eating Key Words	
NUTRIENTS	A range of beneficial components found within ingredients, such as protein, carbohydrate, fibre, vitamins and minerals
BALANCE	Ensuring that your diet contains the prescribed amount of each nutrient, to ensure healthy bodies and minds
EATWELL PLATE	The Government philosophy that details how much of each nutrient we should aim to eat on a daily basis

Drama

	Class Rules
1.	Always be alert and focused
2.	Be open and considerate with your communication
3.	Be a respectful audience
4.	Commit to your character – stay in role
5.	No eating or chewing

	Warm Up
1.	Commit and become aware of others
2.	Find performers neutral
3.	Prepare your mind and body for practical work
4.	Use our imaginations for creation

Introduction to Drama – Key terms	
FREEZE FRAME	A ***still image*** that tells a story – pressing the pause button on the action.
FREEZE-EASE	Bringing a still image to life in slow motion.
CROSS CUTTING	A device to move between two or more scenes staged in the space at the same time.
TABLEUAX	A group of performers who are holding a still image that represents a scene from a story.
HOT SEATING	A technique in which a character or characters, played by the teacher or a student, are interviewed by the rest of the group.
IMPROVISATION	An actor responds to particular a piece of music, drama, theme, etc - created spontaneously or without preparation. This technique requires the performers to use their ***imagination*** and ***collaboration*** skills
DEVISING	When a group collaborate in response to a stimulus leading to the creation of an original performance.
Introduction to Drama – Expected knowledge	
DEVISING FROM A STIMULUS	Taking a word, a theme or a mood from a source provided and creating a theatrical response.
AUDIENCE AWARENESS	Understanding an audience's needs and expectations when you are performing. Consideration of ***stage formation, use of space and focus is needed.***
CREATION OF CHARACTER	Developing traits of a character – performing a person that is different from you. Changes you may make are: ***Voice, Physicality and movement***

Dance

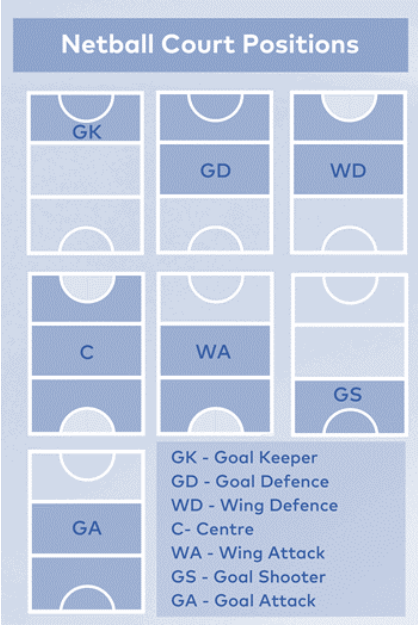
	Class Rules
1.	Always wear full PE Kit
2.	Tie long hair up
3.	Remove all jewellery
4.	Remove shoes and socks
5.	No eating or chewing
6.	Always try your hardest
7.	Have Fun!

	Warm Up
1.	To raise our heart rate
2.	To get blood pumping around our body and to our muscles
3.	To prepare our body for movement
4.	To avoid injuries
5.	To get in the correct mindset for the lesson

Intro to Dance Key Words	
ACTIONS	***WHAT*** movements you are performing – J6 Basic Dance Actions = Jump, Turn, Travel, Stillness, Gesture, Balance
DYNAMICS	***HOW*** you are performing the actions – Fast, Slow, Smooth, Soft, Jagged, Sudden
CHOREOGRAPHY 	A sequence of sets and actions put together to create a dance
CANON 	When you perform the same movement one after the other – like a Mexican wave
FOCUS 	Where you are looking – having your eyeline raised and not laughing/talking when performing
LEVELS	High Level – In the air.  Medium Level  Low Level – floor work 
MIRRORING 	When facing a partner you will do the same movement at the same time as if looking at a mirror
Math Dance Key Words	
STARTING & ENDING POSITION	The still position you hold at the beginning of your dance to show you are ready to start and at the end of your dance to show the audience you are finished.
FORMATION 	**WHERE** you are standing in relation to other dancers and in the space – e.g. in a square or straight line
ENLARGEMENT / PROJECTION 	Making your movements bigger so that they are clear to the audience

PE Year 7 Girls

Netball		
1.	**Passing**	Various passes to use - chest, overhead, bounce, shoulder pass.
2.	**Catching**	A skill used to receive the ball and keep possession.
3.	**Footwork**	When you have the ball do not move your landing foot, pivot only.
4.	**Man marking**	Mark your opposing player to stop them gaining possession i.e. GA marks GD or GK marks GS.



Gymnastics		
1.	**Shapes**	Use these basic shapes in movements, straddle, straight, tuck, pike, star, dish, arch, front support, back support.
2.	**Balances**	Hold for at least 3 seconds. You can perform, individual balances, pair or group balances.
3.	**Travel**	Creative ways of moving to and from balances.
4.	**Sequences**	A routine that links all shapes, balances and skills together.

Components of fitness used in gymnastics		
1.	**Balance**	The ability to maintain centre of mass.
2.	**Muscular endurance**	The ability of your muscles to work continuously without getting tired.
3.	**Flexibility**	The range of movement possible at your joint.

Football		
1.	**Passing**	Use the inside of your foot to pass the ball, change the power of the pass depending on the distance.
2.	**Dribbling**	Dribble using your feet keeping the ball close. You can use the inside, outside, laces and sole of your feet.
3.	**Tackling**	Keep an eye on the ball and jockey the player until it's the right time to tackle.
4.	**Possession**	Keep the ball as a team to avoid the other team having possession and potentially scoring.
5.	**Control**	Take light, tiny touches to keep close control. Cushion or trap the ball when receiving.
6.	**Communication**	Talking to your players is key. Tell them where to pass the ball, and if the opposition is nearby.

Basketball		
1.	**Dribbling**	To move you must bounce the ball. You can only dribble with one hand at a time.
2.	**Double dribble**	If you dribble with two hands or dribble, stop then continue to dribble. This is called double dribble and a violation.
3.	**Possession**	Possession means keeping the ball in your team and not losing it the opposition.
4.	**Shooting**	Various ways of shooting – set shot, jump shot, lay-up.
5.	**Contact**	You cannot make contact with your opposing player.

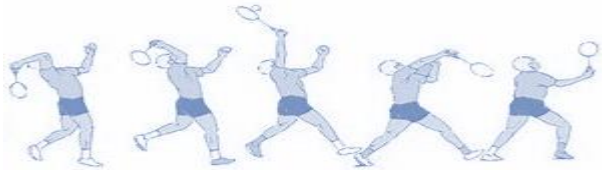
PE Year 7 Boys

Basketball

1.	**Triple threat position & pivoting**	Both hands are on the basketball with your elbows out and bent. In this position player can pass, shoot, or drive with the basketball. The “pivot foot” in basketball refers to a single foot that must stay in contact with the court while in control of the ball.
2.	**Dribbling**	To move you must bounce the ball. You can only dribble with one hand at a time. Dribbling violations are double dribble, travelling and carrying.
3.	**Passing**	Chest pass, bounce pass and javelin pass. You will know when is best to use a specific type of pass during a game situation.
4.	**Shooting**	Set shot and jump shot. BEEF acronym. Balance, eyes, elbow and flick.

Badminton

1.	Games and officiating	You will know how to correctly play and score ½ court singles games.
2.	Serve	Short serve is aimed towards the service line and is used to draw an opponent forward. The long serve is aimed high to the back tramline to force an opponent back.
3.	Overhead clear	Being able to hit the shuttle above your head and clear it to the back of the court.
4.	Smash	Being able to finish a point by hitting the shuttle downwards into the court.
5.	Drop shot	Be able to hit the shuttle just over the net in the space in front of an opponent.



Football

1.	**Passing**	Use the inside of your foot to pass the ball with your non kicking foot pointing to where you want the ball to go. You can change the power of the pass depending on the distance of your teammate.
2.	**Receiving and support**	You must ‘find the light’ by running into a space to support a teammate. When you receive a pass, you must use the inside of your foot to control the ball.
3.	**Dribbling /running with the ball**	Dribble using your feet keeping the ball close. You can use the inside, outside, laces and sole of your feet. Running with the ball is knocking the ball out in front of you and running on to it.
4.	**Close control/turning**	Using lots of little touches to keep the ball close to you. You can perform a range of turns which include the stop, drag, step over, hook and Cruyff turn.
5.	**Tackling**	Keep an eye on the ball and use a jockeying technique to slow a player down before it’s the right time to tackle.
5.	**Shooting + converting chances**	You must select the appropriate shooting technique to use based on your surroundings. To shoot with power you must use your laces, lock your ankle and follow through.

Rugby

1.	**Small sided games**	You know how to use a staggered attacking line and a flat defensive line when playing small sided games.
2.	**Passing**	You should pass with two hands moving across and in front of your body. Your follow through should point to where you want the ball to go.
3.	**Decision making**	You can outwit an opponent in a 2 v 1 situation.
4.	**Falling safely and presenting the ball**	Use knees, hips and shoulders to impact on the ground, not the arms. Once you have been tackled you can turn and present the ball to a teammate using the ‘superman’ position.
5.	**Tackling**	Tower of power, drive from your legs, cheek to cheek, ring of steel and tackle low.