YEAR 7 KNOWLEDGE ORGANISER

LENT TERM

Name:

Family Group:

LEARNING - LOVING - LIVING

KNOWLEDGE ORGANISER GUIDANCE

The knowledge organiser is a book of **EVERYTHING** that you should know (and remember) for the whole term.

EACH NIGHT you should spend *at least* **1 hour** per night on homework.
3 subjects per night x 20 minutes per subject= 1 hour. Use the homework timetable as a guide to what subjects to complete each night.

Complete all work in your exercise book and make sure you bring your knowledge organiser to school EVERYDAY (in your coloured folder).

Every FRIDAY morning the week's worth of KNOWLEDGE ORGANISER homework will be checked in Family Group time and detentions issued for work not complete, or not up to standard.

SUBJECT HOMEWORK

All students will also be assigned **ENGLISH** reading activities on www.CommonLit.org with each assignment taking 20-30 minutes to complete and **MATHS** activities with short explanatory videos on the online platform of https://mathswatch.co.uk.

Students in years 9-11 will also be provided with additional subject homework to be completed throughout the week. It is also recommended to take advantage of FREE online revision tools such as www.senecalearning.com or the recently updated BBC BITESIZE.

It is also recommended that students regularly **READ** a variety of **fiction and non fiction books** of their choosing. This extra reading will develop and broaden general understanding and context in all subjects.

HOMEWORK TIMETABLE

Year 7	Subject 1	Subject 2	Subject 3
Monday	Maths	History	PE
Tuesday	English	Geography	ICT
Wednesday	Maths	RE	Music
Thursday	English	Science	Creative
Friday	Maths	Languages	Drama

HOMEWORK CHECKLIST

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Half term					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6

Here are some activities that you can try at home with your knowledge organiser to help revise. There are even more strategies on page 3.

4 Methods of Retrieval Practice

@ImpactWales

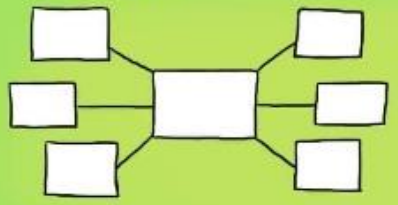
Before you start put away all your books & classroom materials.

Retrieval Practice Examples

- Exit Tickets
- Starter quizzes
- Multiple choice quizzes
- Short answer tests
- Free write
- Think, pair, share
- Ranking & sorting
- Challenge grids

BRAIN DUMP

Write, draw a picture, create a mind-map on everything you know about a topic.



Give yourself a time limit, say 3 minutes, then have a look at your books & add a few things you forgot.

QUIZZING

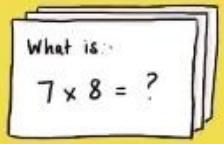
Create practice questions on a topic. Swap your questions with a partner & answer.

Question - What is a metaphor?

- ☐ A comparison using 'like, as, than'.
- ☐ A comparison where one thing is another.
- ☐ A comparison with a human attribute.

FLASHCARDS

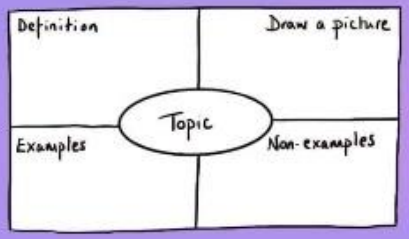
Create your own flashcards, question on one side answer on the other. Can you make links between the cards?



You need to repeat the Q & A process for flashcards you fail on more frequently & less frequently for those you answer correctly

KNOWLEDGE ORGANISERS

Complete a knowledge organiser template for key information about a topic.



You can use knowledge organisers to learn new vocab & make links in between subjects or ideas.

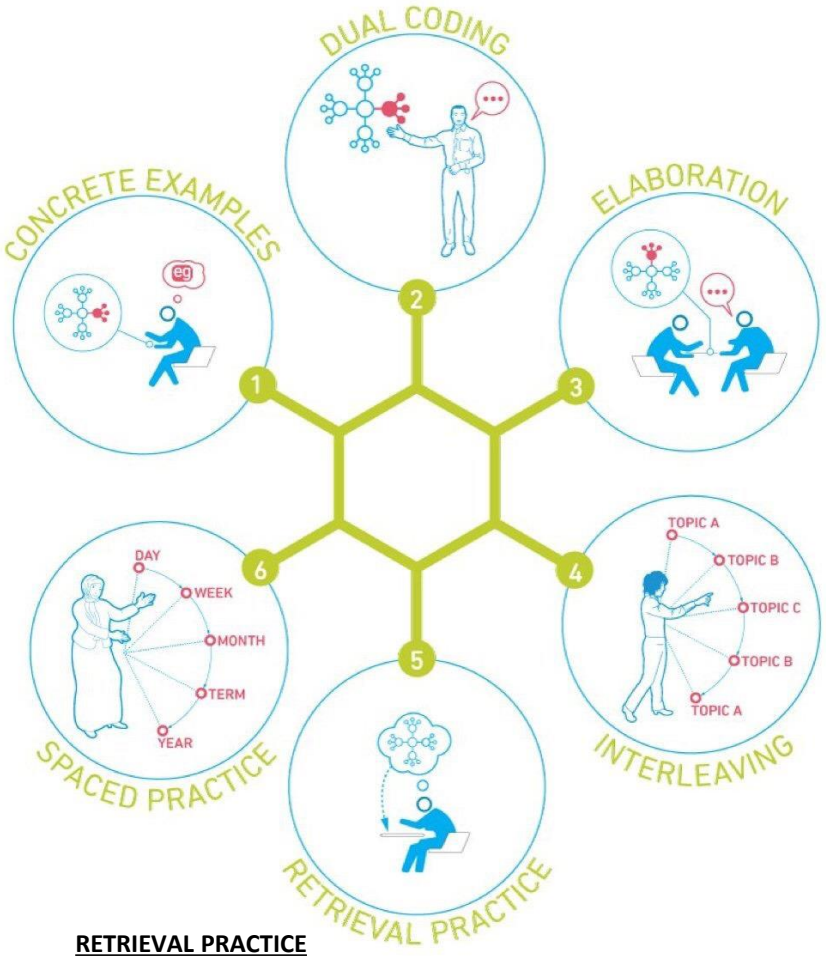
After you have retrieved as much as you can go back to your books & check what you've missed. Next time focus on that missing information

DUAL CODING

Dual coding is the process of combining visual and written materials. You can visually represent materials using methods such as info graphics, timelines, cartoon/comic strips, diagrams and graphic organisers. Combing images with words or explaining an image makes it more likely to 'stick'.

CONCRETE EXAMPLES

When you're studying, try to think about how you can turn ideas you're learning into concrete examples. Making a link between the idea you're studying and a real life example, concrete example, can help students understand abstract ideas and make it 'stick'.



ELABORATION

When talking about studying, elaboration involves explaining and describing ideas with many details. Elaboration also involves making connections among ideas you are trying to learn. Ask yourself questions about a topic to delve deeper. The more information you have about a specific topic the stronger your grasp and ability to recall.

SPACED PRACTISE

Divide up your revision into short manageable chunks of time . When revising aim for 20 - 30 minutes per session. Five hours spread out over two weeks is better than the same five hours all at once. This is **spaced practice** and it is regarded as one of the most effective revision strategies.

INTERVEAVING

Interleaving is a process where you combine multiple subjects and topics while you study in order to improve learning. Switch between ideas and make links between them during a study session. Interleaving has been shown to lead to better long-term retention

RETRIEVAL PRACTICE

Through the act of retrieval, or calling information to mind, our memory for that information is strengthened and forgetting is less likely to occur. Retrieval practice ideas include: Read, cover, write, check, flashcards and brain dumps.

YEAR 7 – LENT TERM- ENGLISH – ANIMAL FARM

Context - George Orwell	
1. Pseudonym	A fictional or made up name used to hide a writer's identity
2. Democratic socialism	
3. Dystopia	An imagined state where everything is bad
4.Eponymous	Having the same name as the title
5. Totalitarianism	A system of government which demands complete obedience and control

Context - Marxism	
6. Karl Marx	The founder of Marxism, an influential political ideology that was critical of capitalism.
7. The Communist Manifesto	Marx's most famous work.
8. Utopia	A state where everything is perfect. Marx believed a utopian society would be classless and stateless.
9. Proletariat	Working class people
11. Collectivisation	Property is owned by the state rather than individually
12. Communism	Political system of collectivisation
13. Capitalism	Based on private ownership of the means of production and individual economic freedom

Context – The Russian Revolution	
14. 1917	The year in which the revolution took place.
15. USSR	Following the revolution, Russia was renamed the Union of Soviet Socialist Republics
16. Bolsheviks	Revolutionary faction who seized power in 1917.
17. Vladimir Lenin	Leader of the Bolsheviks
18. Red Terror	The Red Terror was a period of political repression and mass killings carried out by Bolsheviks after the beginning of the Russian Civil War in 1918
19. Constitution	A nation or state's fundamental set of laws

Plot	
Chapter 1	The animals gather in the barn where Old Major delivers a speech arguing for rebellion.
Chapter 2	The rebellion happens after Mr Jones forgets to feed the animals.
Chapter 3	The pigs begin to emerge as leaders.
Chapter 4	A group of men try to seize the farm and The Battle of the Cowshed takes place.
Chapter 5	Snowball is expelled from the farm and work on the Windmill begins.
Chapter 6	The pigs begin trading and sleeping in beds. A storm destroys the windmill and this is blamed on Snowball
Chapter 7	Napoleon calls a meeting and several 'traitors' are executed.
Chapter 8	A group of men attack the farm and blow up the Windmill. Several animals die and Boxer is injured.
Chapter 9	Boxer is injured working and Napoleon calls for a vet. Boxer is taken away but Benjamin realizes he is being taken for slaughter. Boxer is never seen again.
Chapter 10	Years pass. The pigs begin walking on two legs, wearing clothes and the commandments are changed. In the final scene, the pigs meet with the farmers and play cards. The animals can not tell the difference between the pigs and the humans.

Key Characters	
Mr Jones	The drunken owner of Animal Farm, represents the tyranny of man.
Old Major	Inspires the rebellion with his rhetoric. Possibly represents Lenin or Marx.
Napoleon	Establishes himself as a dictator. A representation of Stalin.
Snowball	An opponent to Napoleon who is devoted to animalism.
Boxer	Devoted and immensely strong. A representation of the working class.
Squealer	Mouthpiece of Napoleon. Uses propaganda to control the animals.
Benjamin	Stubborn, cynical and apathetic. A close friend to Boxer.
Dogs and Sheep	Instruments of fear and control, educated by Napoleon.

Key Vocabulary	Definition		
20. Tyranny (n)	Cruel and oppressive government or rule	**35. Feudal (adj)**	The dominant social system in which peasants were expected to live on their lord's land and provide labour and a share of produce.
21. Exploitation (n)	Benefit from a situation in a way considered unfair or underhand	**36. Hegemony (n)**	Leadership or dominance
22. Repression (n)	The act of using force to control somebody or something	**37. Naivety (n)**	Lack of experience, wisdom or judgment
23. Egalitarian (adj)	Believing that all are equal	**38. Hypocritical (adj)**	Pretending to believe something that they do not or in the opposite way to what is said and done.
24. Ubiquitous (adj)	Found or present everywhere	**39. A Pyrrhic Victory**	A victory that has such a devastating effect it may as well be a defeat.
25. Apathetic (adj)	Lack of interest, enthusiasm or concern	**40. Omniscient (adj)**	All knowing
26. Esteem (n)	Respect and admiration	41. **Ominous (adj)**	Suggesting something bad will happen
27. Stoic (adj)	Someone who can endure pain or hardship without complaining or showing their feelings.	**42 Elitist (adj)**	In favour of those considered superior to others
28. Propaganda (n)	Information, particularly misleading information, used to promote a particular political view.	**43. Stratification (n)**	The arrangement of something into specific groups
29. Altruistic (adj)	Showing a selfless concern for the wellbeing of others.	**44. Idealism (n)**	The unrealistic belief or pursuit of perfection
30. Inquisition (n)	A period of intense questioning	**45. Intelligentsia (n)**	Intellectual or highly educated section of society
31. Ideology (n)	A system of ideas and ideals	**46. Bourgeoisie (n)**	The materialistic and conventional middle class
32. Radical (adj)	Diverting from tradition	**47. Epiplexis (n)**	A series of rhetorical questions
33. Oppression (n)	Exercise of authority or power in an unjust manner	**48. Tricolon (n)**	Three things in a row
34. Liberate (v)	To free	**49. Anaphora (n)**	Repeating start of phrase, clause or sentence
Stylistic Features and terms			
50. Allegory (n)	A story or poem with a hidden meaning	**54. Rhetoric (n)**	Persuasive speaking or writing
51. Symbolism (n)	Using something to represent a larger, more abstract idea	**55. Circular Narrative (n)**	A narrative that ends in the way that it began
52. Omniscient narrator (n)	A narrator who is able to observe everything and who know the thoughts and actions of all the characters	**56. Irony (n)**	The opposite of what is expected, often humorous
53. Satire (n)	Writing that ridicules, often a political figure or society	**57. Hypophora (n)**	Asking a question then answering it straight away

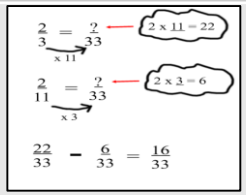
Key Vocabulary	Definition		
58. Bureaucracy (n)	A system of government in which most important decisions are made by state officials, rather than by elected representatives	**73. Constitution (n)**	A nation or state's fundamental set of laws
59. Dictator (n)	A ruler (often cruel), with total power	**74. Axiom (n)**	A short statement expressing a general rule
60. Dissenter (n)	Someone who disagrees with those in power	**75. Irrefutable (adj)**	Impossible to deny or disprove
61. Expulsion (n)	The act of forcing someone to leave	**76. Frenzy (n)**	Uncontrolled excitement or wild behaviour.
62. Manipulate (v)	Control or influence (a person or situation) cleverly	**77. Hysterical (adj)**	Uncontrolled emotions
63. Dubious (adj)	Not to be relied on, doubtful	**78. Asylum (n)**	The protection granted by a state to someone who has left their home country as a political refugee.
64. Passive (adj)	Accepting or allowing what happens without active response or resistance	**79. Relentless (adj)**	Unceasing
65. Proletariat (n)	The working class	**80. Tumult (n)**	A loud, confused noise especially when caused by a mass of people.
66. Corrupt (adj)	Dishonest and immoral	**81. Mimicking (v)**	Imitating or copying
67. Fascism (n)	A society ruled by a dictator who is backed by the military	**82. Evade (v)**	Escape or avoid
68. Etonian (n)	A student of Eton College	**83. Complacent (adj)**	Showing smug or uncritical satisfaction with oneself or one's achievements.
69. Socialism (n)	A belief that we should all share in the profits of our labour	**84. Intrepid (adj)**	Fearless and adventurous
70. Leftist (n)	Someone who supports social equality	**85. Impassioned (adj)**	Filled with great emotion
71. Libel	The crime of writing bad things about people that are not true.	**86. Collaborate (v)**	To work jointly
72. Atrocity (n)	Extremely wicked or cruel act	**87. Audacious (adj)**	Showing a willingness to take bold risks

YEAR 7 – LENT TERM - MATHEMATICS – ALGEBRAIC REASONING, FRACTIONS, DECIMALS AND PERCENTAGES

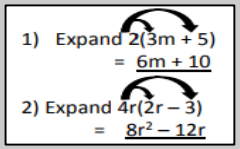
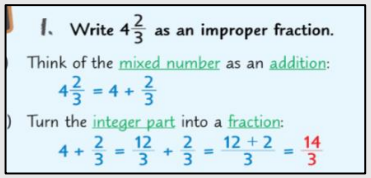
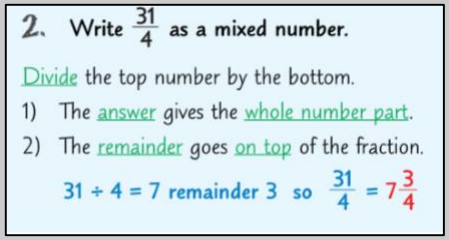
LEARNING - LOVING - LIVING

Vocabulary	
Variable	(or an unknown) is a letter used to represent a number, these can take any values
Terms	the separate parts of expressions. For example, in 5x + 3y – 4, there are three terms 5x, +3y and -4
Expressions	is made up numbers and/or letters representing unknown values where there is no equals symbol. For example, 4a + 6 or a + b
Equations	contains an 'equals' sign and at least one variable. A value can be found for the variable and this is known as solving the equation
Formula	is a special type of equation which is a rule for working things out such as area
Improper fraction	Fractions where the numerator is larger than the denominator
Numerator	The top number in a fraction
Denominator	The bottom number in a fraction
Mixed number	Mixed numbers are things that have an integer and a fraction like $3\frac{1}{3}$

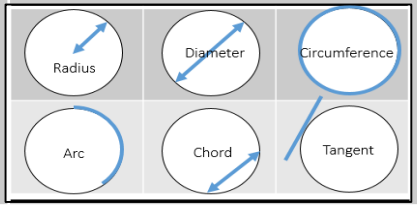
Mathswatch	Number
Algebraic reasoning	**A7a,7b,A6,8,9,10, 11A,B,C**
Fractions, decimals and percentages	R9a,b N32-N39b

QUESTION	ANSWER
$\frac{4}{7} \div \frac{2}{5}$ Dividing fractions	$2\frac{4}{7} \times \frac{5}{2_1} = \frac{10}{7} = 1\frac{3}{7}$ **Dividing fractions is the same as multiplying by the reciprocal**
$\frac{2}{3} - \frac{2}{11}$ Adding and subtracting fractions	
To find 50 %	**Halve the amount**
To find 25%	**Halve the amount and halve it again (or divide by 4)**
To find 75%	**Add your answers for 50% and 25%**
To find 10%	**Divide the amount by 10**
To find 20%	**Find 10% and then double it**
To find 1%	**Divide by 100**
209 as a percentage of 400	$\frac{209}{400} \times 100 = 52.25\%$

Fraction	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{100}$	$\frac{2}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
Decimal	0.5	0.25	0.75	0.1	0.2	0.01	0.4	0.333...	0.666...
Percentage	50%	25%	75%	10%	20%	1%	40%	33.333...%	66.666...%

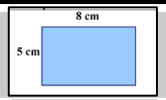
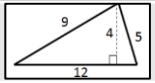
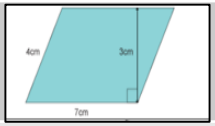
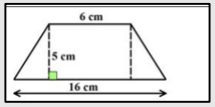
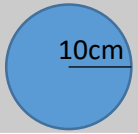
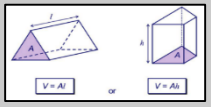
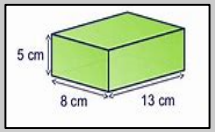
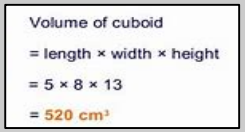
KEY FACTS AND FORMULA	
Simplifying	Simplify the following 1) x + x + x + x + x = 5x 2) 5e - 2e + e = 4e 3) 4x + 2y – x + 5y + 6 = 3x + 7y + 6 4) 3x2 + 5x + 2x2 - 4x = 5x2 + x 5) 5 x 4g = 20g 6) 3b x 4c = 12bc
Substitution	Evaluate $3a^2$ when a = 5 $3 \times 5^2 = 3 \times 25 = 75$ (Don't forget BIDMAS!)
Expanding Brackets single brackets	
Converting to improper fractions	
Converting to mixed numbers	
Express x as a percentage of y	Divide x by y, then multiply by 100.

Important Ideas

$A = \pi r^2$ $A = \frac{\pi d^2}{4}$	Used to calculate the area of a circle. Notice that the formula includes an r^2 term and the answer will be an area measured in units^2. This formula can also be used as the basis for finding the area of sectors and the volumes of cylinders.
$C = \pi d$ $C = 2\pi r$	Used to calculate the circumference. Notice that the formula does not feature a ^{2}. This formula can also be used to calculate the perimeter of shapes made up from part of a circle.
Parts of a circle	

Area	**The amount of space inside a 2D shape**
perimeter	**The total distance around the outside of a shape**
Acute angle	**An angle less than 90 degrees**
Obtuse angle	**An angle more than 90 but less than 180 degrees**
Reflex angle	**An angle greater than 180 degrees**
Perpendicular	**When 2 lines intersect at right angles they are perpendicular**
Pi - π	**A mathematical constant. Defined as the ratio of a circle's circumference to its diameter. 3.142 (3dp)**
Prism	**A solid figure whose bases or ends have the same size and shape and are parallel to one another, and each of whose sides is a parallelogram**

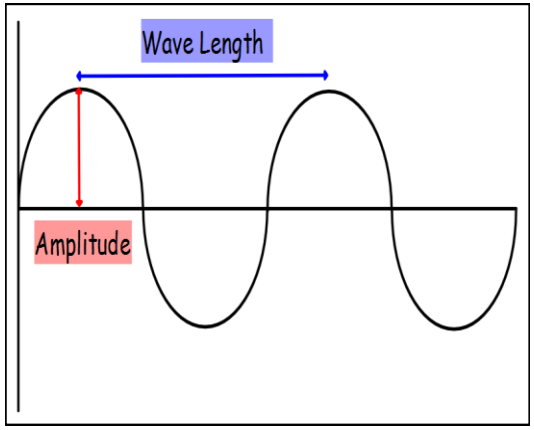
Formulae to learn

Area of a rectangle	Area = base x height		**Area = 8 x 5 = 40 cm ^{2}**
Area of a triangle	Area = $\frac{\text{base x height}}{2}$		**Area = $\frac{12 \times 4}{2}$ =24cm ^{2}**
Area of a parallelogram	Area = base x perpendicular height		**Area = 7 x 3 = 21 cm ^{2}**
Area of a trapezium	Area = ½(a+b)h *Where a and b are always the parallel sides*		**Area = ½ (6 + 16) x 5 = 55cm ^{2}**
Area of a circle	$A = \pi r^2$		**A =** $\pi \times r^2$ **A =** $\pi \times$ **100 = 100**π $=$ 314.16**cm ^{2}**
Circumference of a circle	$C = \pi d$		$C = \pi d$ $C = \pi \times 20$ **C =62.83cm**
Volume of A Prism 	Vol = the cross section area (A) X length (or height) of prism		

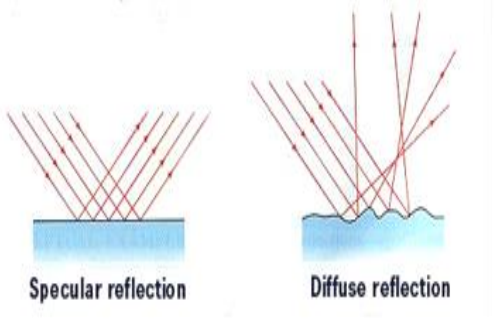
MathsWatch References

G2, G22a, G22b	Area and Circumference of Circle	G13,G17,G18,G19,G23,G31	Angles
G21a, G25a	Volume or cuboids and prisms	G20a,b,c,d	Area

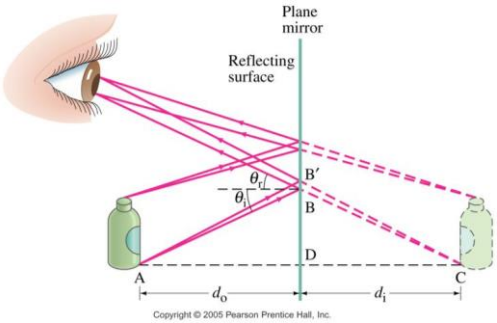
Luminous - emits (gives out) light, like the Sun.
We can see objects because they reflect light, which then enters our eye.
Light is a type of **electromagnetic wave** and is therefore a **transverse** wave.



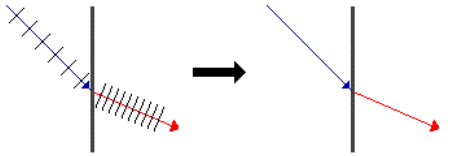
In transverse waves, oscillations occur **perpendicular** (at right angles) to the direction the wave travels.
Wavelength is the distance before the wave repeats – this is easiest to find by measuring the distance between peaks.
Light can pass through some materials:
Transparent – most light transmitted
Translucent – some light transmitted
Opaque – no light transmitted
Light that is not transmitted is either **absorbed** or **reflected**.
If all the light is reflected in the same direction an image is formed – this is called **specular reflection**. This happens on smooth surfaces.
Rough surfaces cause **diffuse reflection** – the light scatters.



The ray model represents how light travels at different surfaces. Light always travels in straight lines.



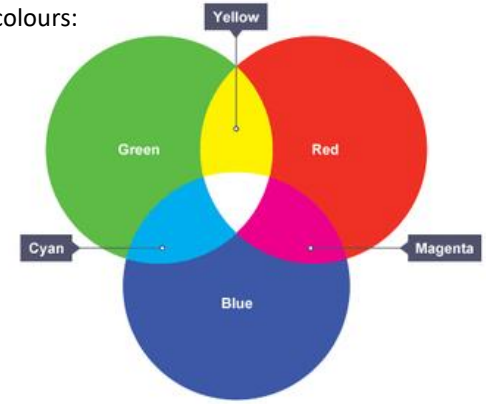
Solid lines represent the actual path of light.
Dotted lines represent where the light **appears** to have come from to the eye – virtual rays.
When light changes speed it changes direction – this is called **refraction**.
When the material light is travelling through changes, the speed it travels at will change based on the **optical density** of the material: more dense = slower light.



A ray will be used to depict the direction which a wavefront travels.

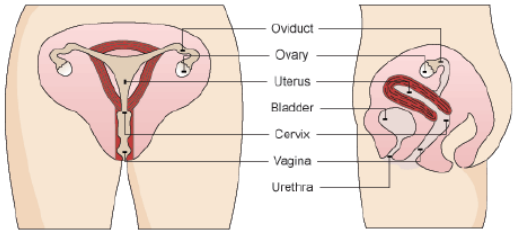
The **normal** is an imaginary line at 90° to the surface. All angles are measured from the normal.
When light reflects, the angle of incidence is the same as the angle of reflection
When light refracts and slows down, it changes direction **towards** the normal.
When light speeds up, it changes direction **away** from the normal.

When light is absorbed, the energy is transferred into a different form – E.g. in photosynthesis, light energy is transferred into chemical energy in glucose. In solar panels, light is used to release electrons to form an electric current (electrical energy).
Light waves (and all EM waves) travel at the same speed in the same material.
Different wavelengths of light have different colours – red has the longest wavelengths, blue the shortest. Wavelengths longer than red form infrared radiation, shorter than blue, UV radiation.
White light is made up of all colours blended together.
White light can be split up into the colours of the spectrum using a prism. Different colours can be combined to make other colours:



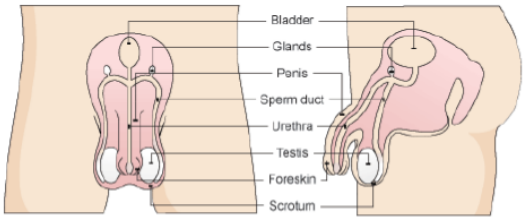
White materials reflect light of all colours.
Black materials reflect no light (black absorbs all light).
Coloured materials only reflect that colour and absorb the others. E.g. blue objects only reflect blue light. All other colours are absorbed.

Female reproductive system



Parts of Female Reproductive System	Functions of the part
Ovary	The organ where eggs (ova) are produced and where they mature ready for release each month
Oviduct	The small tube leading from each ovary to the uterus – the egg travels along here and fertilisation happens here
Uterus	The organ where an embryo grows into a foetus and eventually a baby
Uterus lining	The wall of the uterus
Cervix	A ring of tissue between the uterus and vagina; this helps keep a foetus in place in the uterus during pregnancy
Vagina	The organ that is entered by the penis during sexual intercourse; this is also part of the birth canal

Male reproductive system



Parts of Male Reproductive System	Functions of the part
Testes	The organ where sperm cells are made
Scrotum	The skin that holds the testes
Sperm ducts	The tubes that carry sperm from the testes to the urethra
Glands	These add liquids, including nutrients for the sperm, to the sperm cells from the testes to make semen
Urethra	The tube that carries either urine or semen out of the body through the penis
Penis	The organ that enters the vagina during sexual intercourse
Foreskin	The skin that protects the end of the penis

Gestation

After fertilisation of an ovum, a woman is pregnant. The embryo grows as cells divide and travels to the uterus. Ciliated cells in the oviduct help it to move to the uterus.

The embryo implants into the uterus wall, where is gets oxygen and nutrients from the mother's blood. As it grows bigger and cells become specialised, we call it a foetus. It grows a placenta and umbilical cord.

At the placenta, the foetus gets oxygen and nutrients from the mother's blood (but their blood does NOT mix). The foetus gets rid of waste like carbon dioxide into the mother's blood too.

Birth

After about 40 weeks of pregnancy (for humans), the foetus is ready to be born.

- The muscles in the wall of the uterus contract (contractions)
- These contractions get stronger and faster – this is 'labour'
- After some time of labour, the amniotic sac breaks, which releases the fluid (the 'waters break')
- Contractions push the baby headfirst through the birth canal – through the cervix and out through the vagina

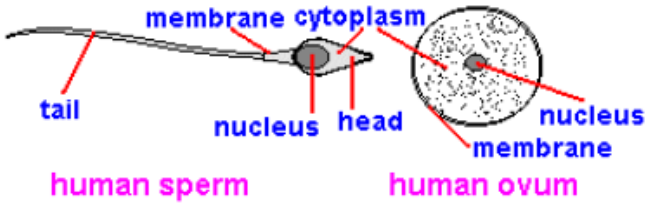
The menstrual cycle

The menstrual cycle prepares the female body for pregnancy by causing eggs (ova) to mature and be released. It lasts for 28 days.

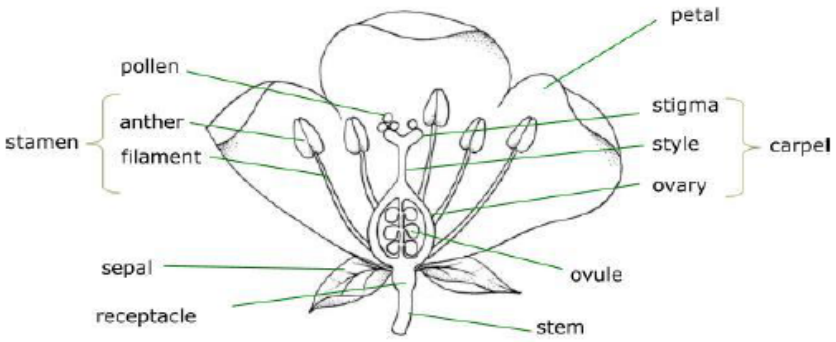
Days 1-5	• 'period' happens (menstruation), where uterus lining breaks down.
Days 6-13	• Uterus lining builds up (thickens) to prepare for pregnancy. The egg (ovum) matures in the ovary
Day 14	• Egg (ovum) released from the ovary and travels down the oviduct
Days 15-28	• Uterus lining stays thick, in case the egg is fertilised

Fertilisation

Fertilisation is when a sperm cell and an ovum fuse. Sperm cells are released into the female reproductive system during sexual intercourse (ejaculation). Only one sperm cell breaks through the cell membrane and enters the ovum, and only the head enters. The nuclei fuse together, putting the mother and father's genetic information together. The fertilised ovum is now an embryo.



Plant reproductive system



Parts of plant Reproductive System	Functions of the part
Pollen	The male gamete (sex cell)
Stigma	Structure that the pollen sticks to
Style	Connects the stigma to the ovary
Ovary	Produces and stores ovules
Ovule	The female gamete (sex cell)
Anther	Produces the pollen
Filament	Holds the anther to the edge of the flower

Seed dispersal

The plant spreads the seeds out – this is called seed dispersal – so their offspring don't compete with them for light or soil nutrients. Seeds can be dispersed in many ways:

- Animals – they eat the fruit and release the seeds in their waste
- Wind – for example sycamore seeds
- Water – for example coconuts

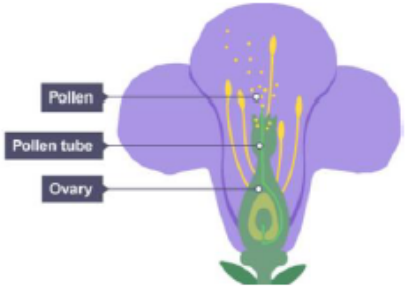
Pollination

Pollination is the transfer of pollen from the anthers of one flower to the stigma of another flower (of the same species).

- In **wind pollination**, the wind carries the pollen from the anthers of one flower to the stigma of another
- In **insect pollination**, insects carry the pollen from anthers to stigmas. They go to flowers to get nectar for food (e.g. bees), and the pollen sticks to them so they carry it onwards.

Fertilisation

After pollination the pollen makes a pollen tube down the style to the ovary. The nucleus of the pollen cell travels down the tube to get to the ovum (egg cell) – when the cells join, this is fertilisation. The cell made when the pollen and ovum fuse will become a seed, which can become a new plant. Plants then form fruits, often from the ovary walls.



Key terms	Definition
Physical change	A physical change means a change in the physical state of a substance for example whether it is a solid liquid or gas
Chemical change	A chemical change involves the breaking and forming of bonds. A new chemical (product) is formed afterwards
Conservation of mass	Matter involved in a physical or chemical change is the same before and after the change. Mass is the same before and after a physical change; the number of atoms in the reactants of a chemical reaction should stay the same after the chemical change

Physical Change

In physical change, the matter's physical appearance is changed, but ***no chemical bonds are broken or formed.***

For example, when water evaporates or boils from liquid water to gaseous steam, only the appearance fo the water is changed – ice, water and steam all have the **chemical formula H_2O**.

Key terms	Definition
Chemical Bond	A chemical bond is a strong attraction between atoms.

Conservation of Mass

In both chemical and physical changes, mass in conserved. This means that the mass we start with must be the same as the mass we end with. ***You cannot make or destroy atoms.***

Example of physical change:

If you start with 10g of ice, this will melt to form 10g of water, which will evaporate to form 10g of steam.

Example of chemical change:

If you start with 2 g of hydrogen and 16g of oxygen, you will make 2 + 16 = 18g of water

$$\underset{2g + 16g}{2H_2 + O_2} \longrightarrow \underset{18g}{2H_2O}$$

Word and Symbol equations

To represent chemical reactions we use word and symbol equations. These equations always have the reactants on the left and the products on the right:

Reactants → Products

Hydrogen + Oxygen → Water

$H_2 + O_2 \rightarrow H_2O$

Chemical Change

A chemical change involves the **formation of one or more new substances.** Different elements or compounds are present at the end of the chemical change.

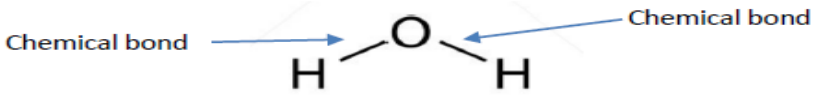
We can observe reactions to see whether or not a chemical change has taken place, signs of chemical changes could be:

1. A colour change
2. Gas being made
3. An increase or decrease in mass
4. Formation of a new solid

Key terms	Definition
Metal Oxide	A compound where a metal is bonded to an oxygen.
Oxidation	A reaction where one of the reactants forms a bond with an oxygen atom
Decomposition	A reaction where one substance breaks down into 2 or more substances

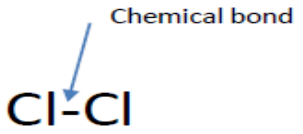
Chemical bonds

A chemical bond is a strong attraction between atoms. Chemical bonds can only be broken in chemical reactions. Below shows a diagram of the bonding in water:



In water we say there is a chemical bond between the hydrogen and oxygen atoms. This chemical bond is strong and to break it requires energy.

Chemical bonds can also exist between atoms of the same element. For example a chlorine atom is always bonded to another chlorine atom.



Chemical Formulae

To show how many atoms are bonded together in an element or a compound, scientists use chemical formulae.

A small number after an element symbol, tells you how many of that type of atom are in the substance.

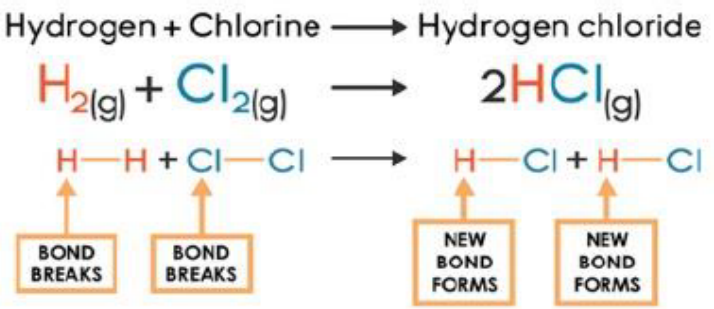
For example: Cl_2 This means that there are **2 chlorine atoms** chemically bonded together.

For example: H_2O This means there are 2 **hydrogen atoms and 1 oxygen atom,** chemically bonded together.

For example Fe_2O_3 This means that there are **2 Iron and 3 oxygen atoms**, chemically bonded together.

Chemical reactions

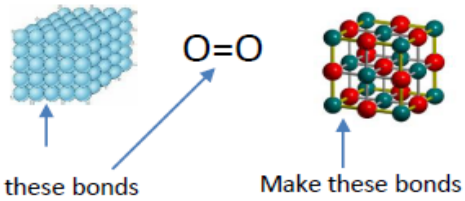
In a chemical reaction we have reactants, these are the chemicals that you start with. In a chemical reaction we make **products,** this is what you will finish with.
In a chemical reaction chemical bonds in the **reactant** particles are broken and new bonds in the **products** are made.



The reaction of metals with oxygen

Metals react with oxygen to make **metal oxides.** For example magnesium reacts with oxygen to make **magnesium oxide.** This can also be written as a word equation:

Magnesium + Oxygen → Magnesium Oxide



In this reaction the bonds between the magnesium atoms and the oxygen atoms are broken. Bonds are then formed between the magnesium and the oxygen atoms.
We call these chemical reactions **oxidation reactions**, as the magnesium has gained an oxygen.

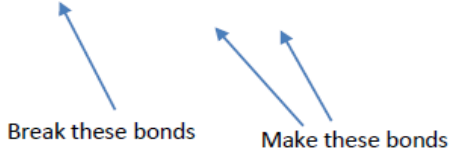
Decomposition Reactions

In some chemical reactions 1 substance can break down to form 2 new substances. We call these reactions decomposition reactions.

An example of a **decomposition reaction** is when hydrogen peroxide (formula H_2O_2) breaks down into water and oxygen.

Hydrogen peroxide → Water +Oxygen

H-O-O-H → H-O-H + O=O



Using Sound Waves

We can hear sound waves due to the adaptations of our ears.

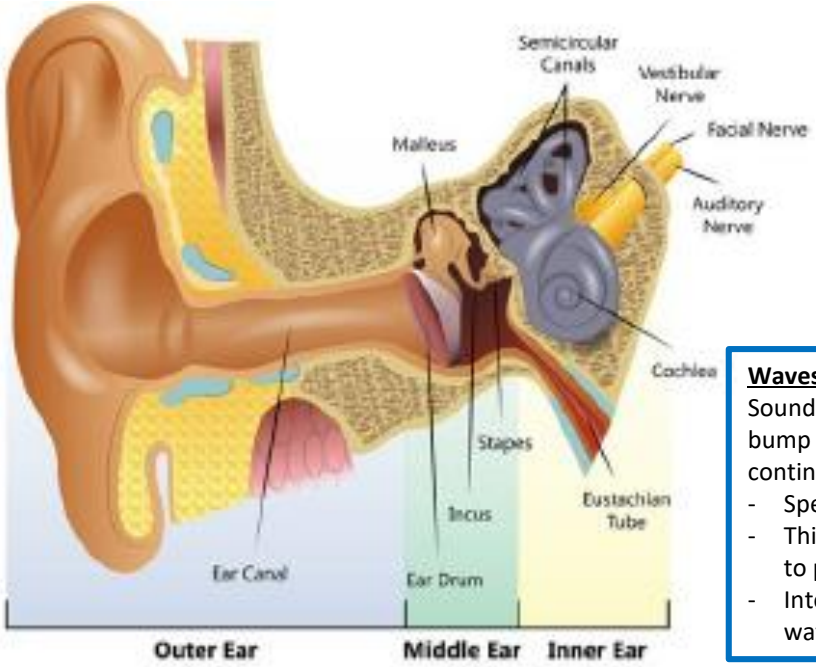
1. The **eardrum** vibrates thanks to a sound wave hitting it.
2. The eardrum vibrates tiny bones in the inner ear.
3. These bones cause the **cochlea** to vibrate, which in turn vibrates the **hair cells** inside.
4. These vibrations produce electrical impulses that travel along the **auditory nerve** to the brain, where we interpret the sound.

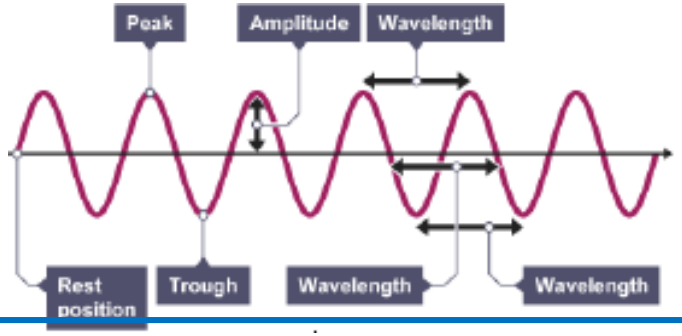
Sounds can be produced by **loudspeakers**, which are simply vibrating cones. The pattern and frequency of the vibrations (oscillations) determines the sound.
Microphones have a vibrating diaphragm inside, which transfers the sound wave into an electrical signal in a circuit.

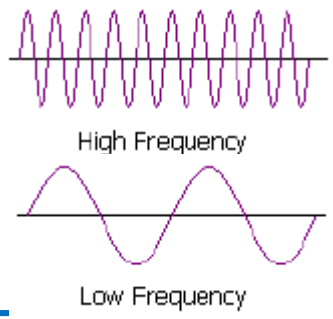
Humans can hear sounds with frequencies from 20 Hz to 20 000 Hz. Sound with frequencies higher than 20 000 Hz is called **ultrasound**. Ultrasound is very useful, for example:

- Prenatal scans of unborn children
- Ultrasonic cleaning of fragile objects
- Breaking up deposits called kidney stones to prevent harm.

Key Terms	Definitions
transmission	The travelling of a wave. We say a wave is 'transmitted' through a medium.
incident wave	A wave heading towards the boundary between media.
reflection	When a wave bounces back from a boundary between media at the same angle as which it hit the boundary.
absorption	When the energy a wave transfers goes into heating a material.
refraction	When a wave changes direction at the boundary between media due to a change in speed.
diffraction	The spreading out of a wave after it passes through a gap.
superposition	The adding up or cancelling out of waves that travel together.
ultrasound	Sound too high pitched (too high frequency) to hear
hertz (Hz)	The unit for frequency, meaning 'waves per second'







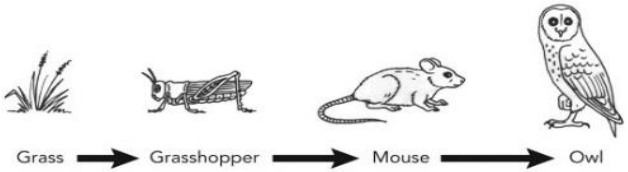
Waves through matter

Sound relies on transfer of energy through particles. One set of molecules start vibrating and bump into another set of molecules, which start vibrating and bump into another set, etc. This continues until the energy runs out.

- Speed of sound is fastest in solid, then liquids, then gases.
- This is due to density (how tightly packed the particles are): the closer together, the easier it is to pass energy from one particle to the next.
- Intensity of sound also differs: waves with the same amplitudes sound different in gas and water, so decibels in air will not be the same as decibels in water.

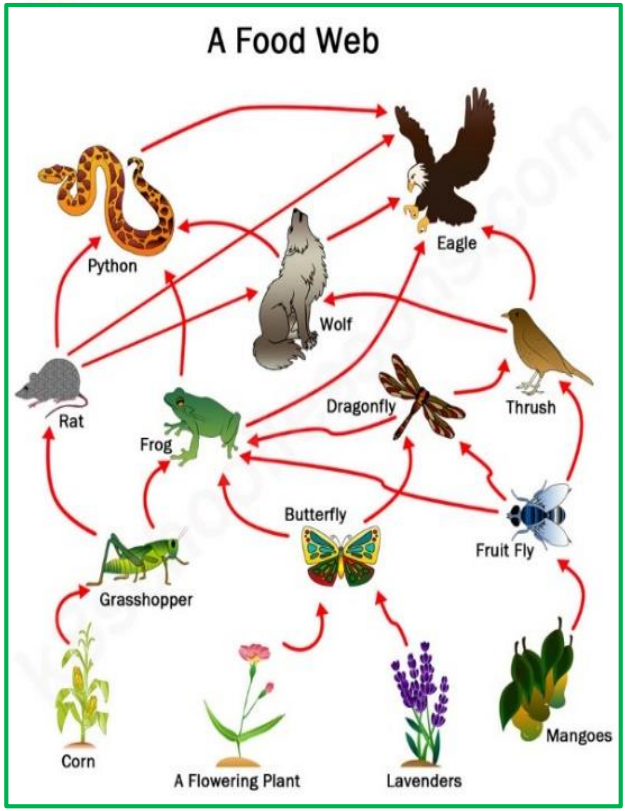
	Key Terms	Definitions
1	Ecosystem	Interactions of a community with the non-living parts of the environment
2	Biodiversity	The range of species living in an ecosystem. Important due to needing a range of food sources so that organisms don't depend on just one source
3	Population	Number of individuals of one species living in an ecosystem
4	Habitat	Place where an organism lives
5	Food chain	The feeding relationship between organisms: an example of dependence. Each organism depends on another for its nutrients
6	Food web	A network of connecting food chains

A Food Chain



In a food web:
- Producers make their own food
- Primary consumers eat producers
- Secondary consumers (e.g. frog) eat primary consumers
- Tertiary consumers (e.g. Python) eat secondary consumers

Food webs give a representation of the dependencies within an ecosystem.
If the amount of one organism changes (due to disease, habitat destruction etc) it will have a knock on effect on other species numbers.
For example, if a disease killed many frogs, there would be more grass hoppers and butterflies because they won't be eaten as often. There will also be more rats because they wont have as much competition for the grasshoppers.



Food Chains
Food chains start with a **producer** (usually a plant) which captures energy from the Sun by **photosynthesis** and uses to it make glucose (sugar).
Glucose is the source of energy for all organisms through **respiration**. The producer will use the energy from the glucose to grow.
When the plant is eaten, some of the energy left in the plant is transferred to the grasshopper, which will also use the energy for growth and also movement.
When the mouse eats the grasshopper, some of the energy is transferred to it to use.
Changes in the amounts of organisms at each stage of the food chain will affect all the other organisms in the chain.

Plant population in an ecosystem is affected by:
- Rain
- Sun
- Minerals
- Space to grow

Animal population in an ecosystem is affected by:
- Food
- Habitats
- Mates
- Water
- Disease

Most animals eat different things and are involved in different food chains. These food chains can be put together to form a **food web**.

Organisms have an impact on their environment through their **behaviour** and the changes to the environment will affect their behaviour.

For example, cows will eat all the plant life. This will mean the topsoil gets washed away causing habitat loss for other organisms. It will also get washed into the water affecting water supply for all organisms.

Predator-prey relationships have the largest impact on organisms.

Human Impacts on the Environment

- Deforestation
- Buildings and roads
- Dams and reservoirs
- Hunting

The growth of the human population also affects environments and the developed technology that comes with it.

- More land is needed for farming
- More factories mean more pollution
- Organisms are moved out of their natural environment and have big impacts in new ones (e.g Japanese knot weed)
- Many organisms are now endangered

These impacts reduce **biodiversity** – the amount of different species in an environment and the amount of each species.

There are three levels of risk for an organism of extinction:

- Not threatened
- Vulnerable
- Endangered
- Critically endangered

We protect endangered species through **conservation**. This can involve:

- Observation of species
- Analysis of environment
- Captive breeding
- Habitat creation
- Pest control
- International agreements to protect species

There are often a range of people involved in monitoring the environment of endangered species and implementing protection.

As a consequence of the growing human population, more food needs to grown. To help this, more **fertilisers** and **pesticides** are used to help grow more crops.

These chemicals can introduce toxins into the food chains.

Toxins can enter food chains from:

- Pesticides and herbicides
- Water run off from cities
- Soft mud absorbs toxins that plants then absorb
- Air pollution

These toxins will accumulate as they are passed up a food chain. Plants will absorb a little of the toxin, but herbivores will eat many plants. Organisms further up the food chain will accumulate the toxins gathered in those further down because there are less predators. This is called **bioaccumulation** and can lead to predators becoming extinct.

	Key Term	Definition
1	Interdependence	The way organisms interact with each other. Also known as **symbiosis**
2	Commensalism	One organism benefits, the other doesn't
3	Mutualism	Both organisms benefit
4	Parasitism	One organism benefits at the cost of the other
5	Niche	Role of an organism in the ecosystem (e.g. predator, prey, decomposer)
6	Competition	Where two or more organisms compete for the same resource: the organisms better able to access the resource will thrive. Often the driving force of evolution
7	Specialism	Where an organism is specialised for accessing resources from one source

If the amount of prey increases, the predator numbers will all increase slightly afterwards.

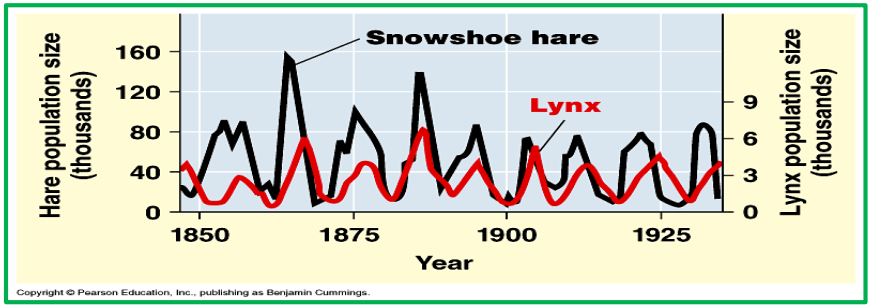
When the predator numbers increase, the prey numbers will decrease.

- There is more prey than predators
- The numbers of predators lags behind

Predators form an important part of food webs because:

- They keep the negative effects of prey in check
- They encourage prey to move around to give plants more time to grow

Predators are also useful as a control for pests for human crops, for example lady birds can be introduced as a control for greenfly.



Hydrological Cycle - the sequence of conditions through which water passes from vapor in the atmosphere through precipitation upon land or water surfaces and ultimately back into the atmosphere as a result of evaporation and transpiration.

1	Tributaries	A river or stream flowing into a larger river.
2	Inputs / outputs	Water coming into the system vs water coming out of the system.
4	Precipitation	All forms of moisture that reach the earths surface for example rain, sleet, snow etc.
5	Storage	Water stored in the system in lakes, rivers, puddles etc.
6	Ground water storage	The storage of water underground in permeable rock strata.
7	Rock strata	Different layers of rock.
8	Water table	The level below which the ground is saturated with water.
9	Saturated	Holding as much water or moisture as can be absorbed.
10	Ground water flow	The deeper movement of water through underlying permeable rock strata below the water table.
11	Infiltration	The downward movement of water into the soil surface.
12	Percolation	The gravity flow of water within the soil.
13	Surface run off	The movement of water over the surface of the land, usually when the ground is saturated.
14	Geology	The science of the physical structure and substance of the earth, their history and the processes which act upon them.
15	Evaporation	The transformation of water droplet into water vapor by heating.
16	Transpiration	Evaporation from plant leaves.
17	Evapotranspiration	The loss of water from drainage basin into the atmosphere from leaves of plants and loss from evaporation.

Erosion – the wearing away of rock and soil found along the river bed and river bank

18	Hydraulic action	The force of the river against the banks can cause air to be trapped in cracks and crevices. The pressure weakens the banks and gradually wears it away.
19	Abrasion	Rocks carried along by the river wear down the river bed and banks.
20	Attrition	Rocks being carried by the river smash together and break into smaller, smoother and rounder particles.
21	Solution	Soluble particles are dissolved into the river.

Transportation – the river picking up and carrying material as it flows downstream.

22	Suspension	Fine, light material carried along in the water.
23	Saltation	Small pebbles and stones bounced along the river bed.
24	Traction	Large boulders and rocks are rolled along the river bed.
25	Deposition	When a river looses energy it drops its load or deposits some of the material it is carrying.
26	Velocity	Speed of the river measured in meters per second.

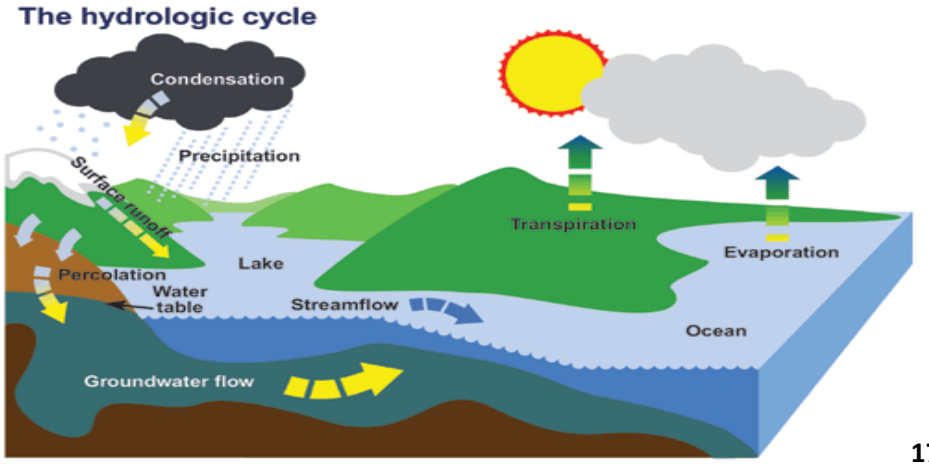


Diagram 1 - River erosion processes:

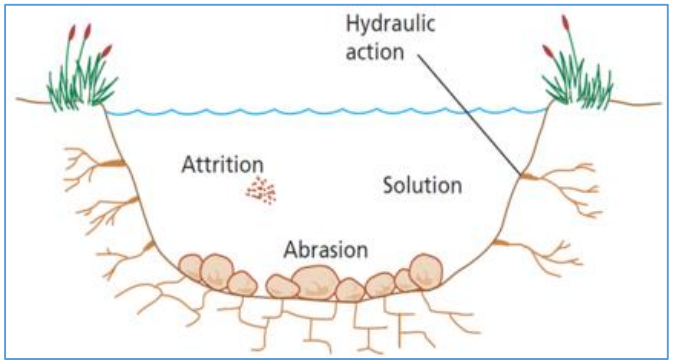


Diagram 2 - Long and cross profiles of a typical river:

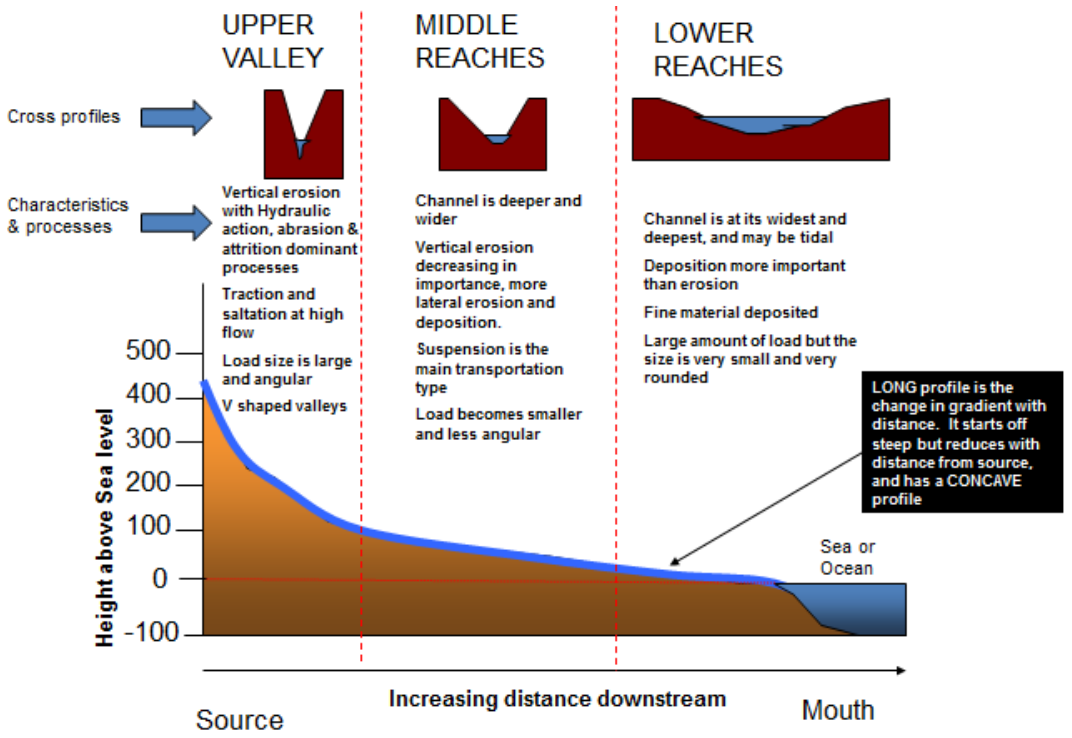


Diagram 3 - Formation of an oxbow lake:

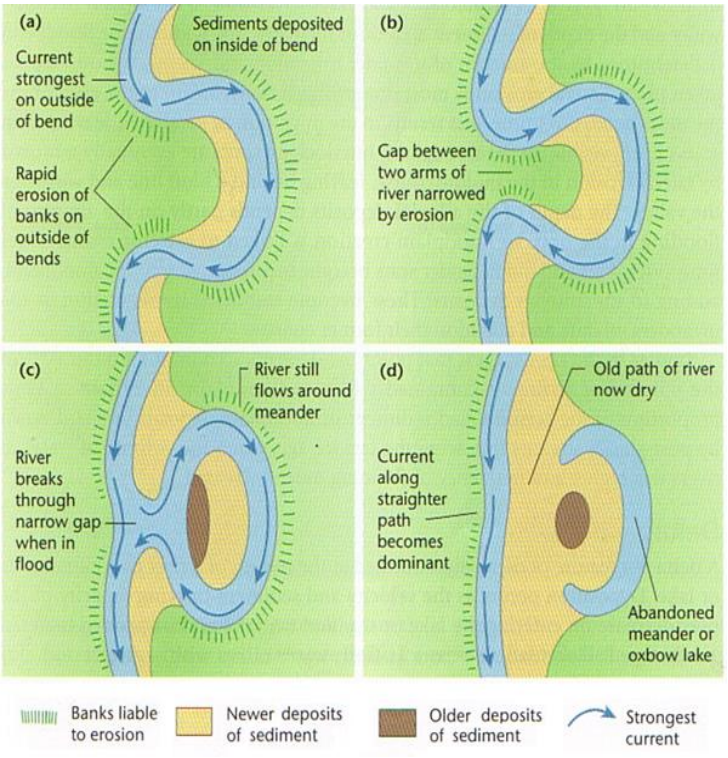
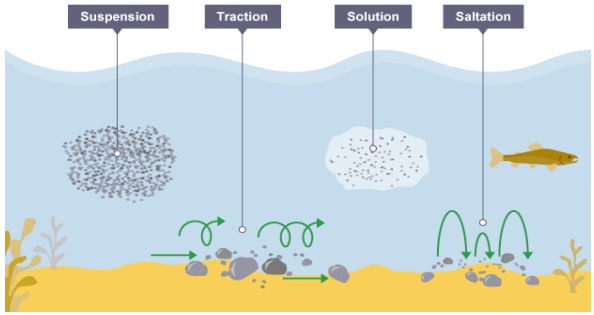


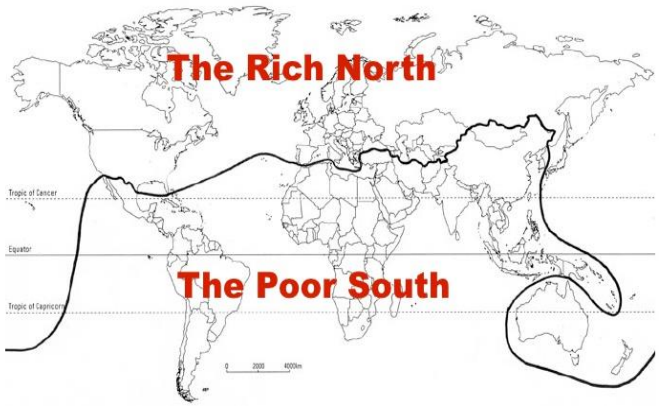
Diagram 4 - River transport processes:



1	Population density	How many people per 1 sq km.
2	Densely populated	Highly populated region.
4	Sparsely populated	Few people in a region.
5	Distribution	Pattern of where things are located.
6	Oil / gas fields	Oil and gas are fossil fuels. Created from prehistoric plants and animals. Extracted from the ground and sea bed.
7	Oil / gas pipes	Pipes that transport oil.
8	Vessel	A ship
9	Piracy	The practice of attacking and robbing ships at sea.
10	Holistic approach	Takes into account a range of social, economic and environmental factors.
11	Composite	Made up of different factors.
12	Social	To do with people and society.
13	Economic	Anything connected to money.
14	Environmental	Anything connected to natural landscapes.
15	Life expectancy	The average amount of time a person lives to.
16	Fertility rate	The average number of children a woman will have in her lifetime.
17	Infant mortality	Average number of babies who will die before they are 1 year old per 1000 live births.

18	Primary	Raw materials taken from the ground or sea. Jobs include farmer, fisherman, miner.
19	Secondary	Raw materials manufactured into a different product. These are factory jobs.
20	Tertiary	Supplying a service. Jobs include shop assistant, teacher, doctor, bar staff.
21	Quaternary	Research and development. Inventing a new product. Jobs include scientists.
22	Industrialization	When a mainly agricultural economy becomes a mainly manufacturing economy.
22	Agriculture	Farming
23	Transnational Corporation (TNC)	A company that has operations in more than one country.
24	Megacity	City with a population of more than 10million people.
25	Push factors	Negative factors pushing people away from an area.
26	Pull factors	Positive factors attracting people to an area.
27	Informal sector	The government doesn't know you are working. 'employees' do not have a contract or pay tax. Very low wages, low skills and dangerous work.
28	Formal sector	The government knows you are working. You have a contract and pay taxes. Jobs are usually more highly skilled.
29	Natural increase	When the number of births outnumber the number of deaths.
30	Slums	Illegal settlements.
31	Gross domestic product (GDP)	Total value of goods and services produced by a country in a year.

Diagram 1 – Theories of development (**The Brandt Line**)

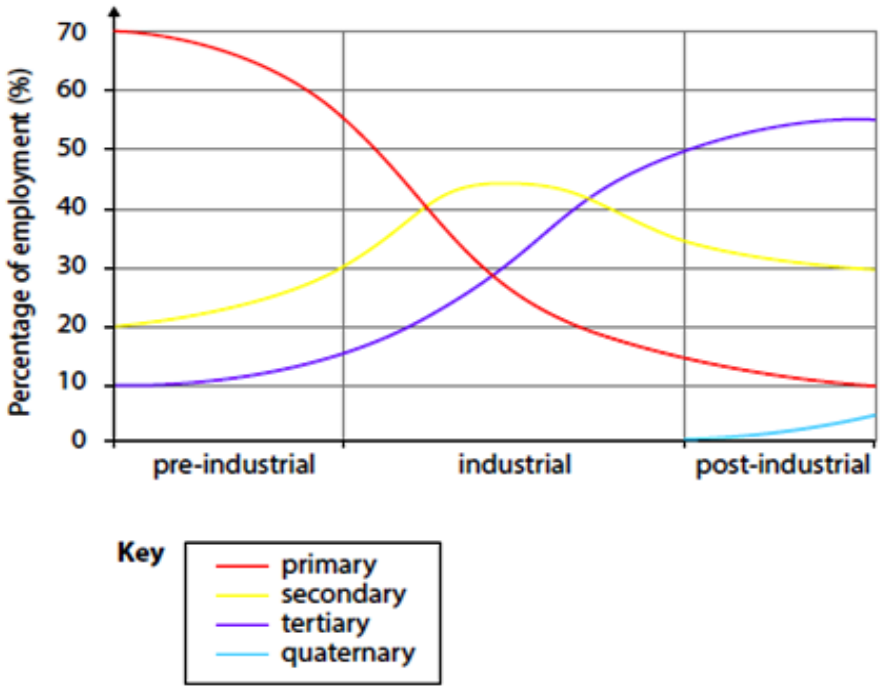


In 1980 the Brandt Report was published by Willie Brandt. He divided the world into two the Rich North (Europe, North America, Japan and Australia) and the Poor South (Africa, South America and Asia). However, since this was written much has changed and we now have "emerging countries" like Brazil, Mexico, India and China that are increasingly becoming more economically powerful.

Table 1 - How does Nigeria compare to the UK?

Development indicator	Nigeria	UK
Total population	190 000 000	66 000 000
GDP per capita	$1,968 US	$39 720
Life expectancy	55.4 years	80.9 years
Literacy Rate	65.1%	99%
Infant morality rate	201 per 1000	3 per 1000
Fertility rate	5.67	1.8
Average age	18.3 years	40 years

Diagram 1 - Clark Fisher Model of Development



- Mid 1990s produced a theory of development.
- Low economy countries were dominated by the primary industries (farming and mining)
- Middle income countries were dominated by the secondary sector (manufacturing) and
- High income countries were dominated by tertiary and quaternary sector jobs i.e. banking, legal services and leisure.
- As society develops and receives investment people move away from subsistence farming and primary sector jobs.
- They use money to mechanise farming
- During the industrial period people begin to work in factories.
- With an improved education more people can then work in the tertiary sector and higher wage demands means factories move to emerging countries.

Key Terms		
1	Crusades	Religious wars fought over control of the Holy Lands.
2	Tyrant	A ruler who refuses to share their power, and governs in a cruel and oppressive way.
3	Excommunication	Expulsion from the Catholic Church by the Pope
4	Magna Carta	A series of promises, meaning 'the Great Charter', the Barons forced King John to sign in 1215.
5	Angevin Empire	Term to describe England and France under the rule of Richard and John.
6	Great Council	Assembly of church leaders and wealthy landowners who met with the king to discuss national affairs.
7	Physician	A term for a doctor
8	Four Humors	Theory about the cause of illness developed by Greek doctor Hippocrates. The four were: Phlegm, Yellow bile, Black Bile and Blood.
9	Black Death	A plague that devastated Europe in the fourteenth century.
10	Buboes	Onion shaped swellings that were usually the first symptom of the Black Death.
11	Miasma	Theory that disease was caused by a poisonous cloud of 'bad air'.
12	Bubonic plague	The most common type of plague, named after the buboes and caused by the spread of bacteria.
13	Pneumonic plague	A more deadly type of plague that attacked the lungs.
14	Bleeding	Draining excess blood from a patient that is considered poisonous to the body.
15	Lancing	Using a sharp tool to 'pop' a boil or bubo.
16	Flagellant	A religious sect that punished themselves for sins by whipping their bodies.
17	Revolt	To take violent action against an established government or ruler; rebel.
18	Peasants' Revolt	Major uprising across England in 1381. Yeomen - a new class in medieval England; commoners who farmed their own land.
19	Poll Tax	Everyone (rich and poor) paid the same amount
20	Hung, drawn quartered	Punishment for treason. Victims are hanged, cut down and body cut into 4 quarters and spread across the kingdom.

	Key people	
1	**Richard I**	-Significant Christian leader and British King (known as Richard lion heart). -Known for being a talented military leader, a sensible decision maker and skilled peacemaker.
2	**King John**	-Inherited the Angevin Empire (England and France) from Richard I (his brother). -His brother had left him problems in France to deal with and lots of Debt, by 1215 his Barons had had enough and declared a war on him.
3	**Richard II**	-King at 10years old (His uncle helped him rule). -After the Black Death he implemented a Poll Tax to raise money for a war with France, this was unpopular and led to the Peasant's Revolt.
4	**Wat Tyler**	-Leader of the peasant's revolt. He met with Richard II on 15 June 1381 and was killed in the meeting leading to the end of the peasants' revolt.
5	**Simon Sudbury**	Archbishop of Canterbury from 1375 until his death, and in the last year of his life Lord Chancellor of England . Killed in the Peasants' Revolt.

Key events		
1	The Black Death, 1348	A plague wipes through Europe and is introduced to England via Dorset. Approximately 1/3 of the population die from this disease and this allows for a change in the typically hierarchical feudal society in England.
2	The Peasants' Revolt , 1381	Having lost such a large section of the population during the Black Death, landowners found it very difficult to find enough peasants to work their land. Peasants knew they were in demand and began to demand higher wages. King Edward III tried to stop this with the Statute of Labourers (a law) which fixed peasant wages at the pre-Black death rate. The peasants' revolted and challenged feudal England.

A timeline of Henry VIII's reign	
1491	Henry is born at Greenwich Palace
1509	Henry becomes King and marries Catherine of Aragon
1531	Henry makes himself head of the Church in England.
1533	Henry divorces Catherine and marries Ann Boleyn.
1536	Dissolution of the Monasteries begins. Henry executes Ann and marries Jane Seymour. The Pilgrimage of Grace is brutally suppressed.
1537	Henry's son Edward is born. Jane dies giving birth.
1540	Thomas Cromwell executed

Why did Henry VIII break from Rome?	
1. Succession	Henry desperately needed an heir to ensure a peaceful and stable succession. By the late 1520s he no longer believed that his wife Catherine of Aragon could provide him with a son.
2. Love	Henry had fallen in love with one of his wife's ladies in waiting Anne Boleyn. Anne did not want an affair but marriage.
3. Power	Henry's ministers had been unable to get the Pope to agree to grant the divorce. This was humiliating. Henry believed that Kings should have power over the church in their own country.
4. Money	The Church was extremely wealthy because of tithes donations and the amount of land they owned. Henry was quite poor from his wars with France and needed money to fight future wars.
5. Religious beliefs	Some people criticised the Catholic Church for being corrupt. These were known as Protestants. Many of the supporters of Anne Boleyn were Protestant.

Key words

1	Act of Supremacy	A law which made Henry head of the church in England	8	Church of England	The Christian church in England. The king or queen is head of this church	15	Heir	A person who inherits the rank/property of another on that person's death. The person who inherits the throne.
2	Anne Boleyn	Henry's second wife, executed for treason	9	Edward VI	The son of Henry VIII. A sickly boy who died young.	16	Pope	The head of the Catholic church in Rome
3	Ann of Cleves	Henry's fourth wife. He divorced her because he found her ugly	10	Elizabeth I	The younger daughter of Henry VIII. Became a powerful queen of England.	17	Protestant	A Christian who disagreed with the teachings of the Catholic church
4	Catherine Howard	Henry's fifth wife. Executed for treason.	11	Henry VII	A powerful king and the father of Henry VIII	18	Thomas Cromwell	A close friend and adviser of Henry, who was later executed for treason
5	Catherine of Aragon	Henry's first wife. Divorced after she failed to produce a son.	12	Henry VIII	King of England famed for having six wives	19	Thomas Wolsey	An important priest who worked for Henry
6	Catherine Parr	Henry's sixth wife. She looked after him in his old age.	13	Jane Seymour	Henry's third wife who died giving birth to his son	20	Thomas More	Henry's childhood teacher. Refused to support Henry becoming head of the church and was executed
7	Catholic	People who believed the Pope should be head of the Church.	14	Mary I	First daughter of Henry VIII. Became queen after her brother Edward VI died.	21	Tudors	The family of Henry VIII

Vocabulary		
1	**Evil**	A cause of human suffering.
2	**Suffering**	Is the bearing or undergoing of pain or distress.
3	**Moral evil**	The acts of humans which are considered to be morally wrong
4	**Natural evil**	natural disasters, such as earthquakes or tsunamis.
5	**omnipotent**	The all-powerful, almighty and unlimited nature of God.
6	**Omnibenevolent**	All-loving and infinitely good – a characteristic often attributed to God.
7	**Free-will**	The ability to make choices voluntarily and independently. The belief that nothing is predetermined.
8	**Sin**	Any action or thought that goes against God
9	**Original sin**	The tendency to sin in all human beings, believed to be inherited from Adam, 'the first man'.
10	**Theodicy**	A religious explanation for the existence of both God and evil and suffering.
11	**Inconsistent triad**	Three ideas but only two of them can be true
12	**Reconciled**	The idea that people should make up after an argument and be restored in their relationship.
13	**Philosopher**	A person who studies wisdom.

Job

In the Old Testament there is a book call Job about a man named Job who was described as being 'a good man, careful of not doing anything evil', and was faithful to God. Job had a wife and many children, along with land and animals. Satan was given permission by God to test Job's faith. Job lost many people and things, but still remained faithful to God. Job also became poor in health but still remained faithful to God. Even though others told job to turn his back on God, he did not. Job passed the test by remaining faithful to God. He was then rewarded by God, Job was blessed with double the things he had lost.

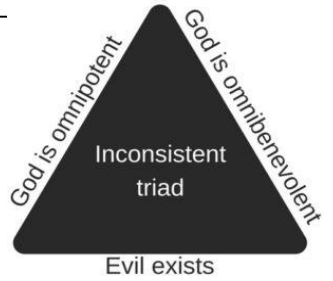
Christians believe the story of Job teaches that often humans go through suffering as a test of their faith.

The Greek philosopher **Epicurus (342-271 BCE)**

Epicurus claimed that if God cannot stop evil then he is not all-powerful (omnipotent).
He then argued that if God can prevent evil but does not, then God is not good or all-loving.
He linked these two points together, claiming that if God is all-powerful and good, then evil would not exist.
Finally, human experience is that evil does exist. Therefore Epicurus concluded that God must not exist.

The inconsistent triad

The problem of evil can be regarded as an 'inconsistent triad' – in other words, three ideas but only two of them can be true.
As there is clear evidence and experience of evil, either God is not all-powerful (ie He cannot stop evil) or God is not loving and good (ie He does not love us or care enough to stop evil).



Christians may give one or more of the following answers:

- God has given people **free will**. He has shown people how they should obey the **Ten Commandments** and follow Jesus' life and teaching. It is then up to human beings to decide whether or not to follow God's instructions.
- God has a plan for people's lives that they may not always understand. This may include evil and suffering but Christians should trust and have faith in God's plan.
- God wants people to follow the example of Jesus and help those who are suffering. God must have a reason for allowing evil and suffering but the reason is beyond human understanding.
- Christians also pray for those who suffer and try to help them.
- Evil and suffering in this life is a preparation for Heaven. Evil and suffering give people a chance to become better people and improve their souls. They believe that God will reward them in Heaven.

Irenaeus' soul-making theodicy

Irenaeus stated that God made humans imperfect and is therefore partly responsible for the existence of evil. To make humans perfect would take away their freedom to live in accordance with God's will. By creating imperfect humans, individuals are given the chance to develop and grow through a soul-making process into "children of God". Irenaeus stated that eventually good will overcome evil and suffering.

Augustine's soul-deciding theodicy

Augustine believed that all humans were created perfect and that they were given **free will**. However humans use that free will to turn away from God and choose to sin. God foretold that this fall would happen and therefore sent his son, Jesus Christ, so that humanity may be **reconciled** with God. Augustine's **theodicy** bases the origin of evil and suffering on humanity and takes that responsibility away from God.

Judaism - History and Belief		
1	**synagogue**	The place where Jews meet. It literally means 'assembly'. The leader of a synagogue is called a **rabbi.**
2	**Tanakh**	The Jewish holy book. It contains the **Torah** (law) which is the most important holy text for Jews. It also contains the nevi'im (prophets) and Ketuvim (writings). It was written in **Hebrew.**
3	**covenant**	An agreement or promise between God and people.
4	**patriarchs**	The three founding fathers believed to be physical & spiritual ancestors of all Jews (Abraham, Isaac and Jacob).
5	**Promised Land**	An area of land given to the Israelites by God in the Torah.
6	**The Temple**	The building in Jerusalem where Jews worshipped before synagogues. It was destroyed by the Babylonians in 586 BCE and rebuilt after Jews returned from the Babylonian exile. The Romans destroyed the Second Temple in 66 CE. **The Western Wall** is all that remains today and is a popular pilgrimage site.
7	**Ark of the Covenant**	The box that housed the two tablets of stone on which the original Ten Commandments were written. It was kept in the **Holy of Holies** in the first Temple, but went missing during the Babylonian exile.
8	**Messiah**	A word used to refer to a future king descended from King David who would return Jews to Israel, bring peace, build the Third Temple and have a son who would be his heir. Some Jews are still waiting for the Messiah to come.
9	**yad**	A pointer used to read the Torah in the synagogue.
10	**Mitzvot**	Jewish laws (there are 613 in total); the singular is mitzvah.
11	**Talmud**	A collection of teachings from rabbis giving more information about the Torah.
12	**kashrut**	Jewish food laws.
13	**kosher**	Food that is acceptable for Jews to eat according to kashrut; the word literally means 'fit'.
14	**trefah**	Food that Jews are forbidden to eat.
15	**Ark**	A cupboard in a synagogue where the handwritten Torah scrolls are stored.
16	**Ner tamid**	A symbolic light in front of, or above the Ark; it means everlasting light.
17	**bimah**	The platform in the synagogue where the Torah scrolls are read from.
18	**The Shema**	The most important prayer in Judaism. Often found in a small box attached to doorposts in Jewish homes known as a **mezuzah.**
19	**kippah**	A head covering worn during prayer.
20	**tallit**	A shawl with 613 tassels worn during prayer to symbolise being wrapped in God's will.
21	**tefillin**	Two boxes worn during prayer, which contain verses from the Torah.

Judaism in the Modern World		
22	**Shabbat/Sabbath**	A day of rest once a week. It literally means 'ceasing'.
23	**Pesach/Passover**	A festival when Jews remember the Angel of Death passing over the houses of the Israelites and freedom from slavery.
24	**Seder Meal**	A symbolic meal shared by families during Pesach/Passover.
25	**Rosh Hashanah**	The first day of the Jewish new year; 'Day of Judgement'.
26	**shofar**	A ram's horn blown on Rosh Hashanah to remind Jews that God will judge their actions.
27	**Yom Kippur**	Day of Atonement; the holiest day of the year where Jews confess their wrongdoing.
28	**circumcision**	The removal of a baby boy's foreskin after eight days as a sign of God's covenant with Abraham.
29	**mohel**	Someone who is medically and religiously qualified to perform a circumcision.
30	**Bar Mitzvah**	A ceremony for boys at the age of 13; it literally means 'son of the commandments'.
31	**Bat Mitzvah**	A ceremony for girls at the age of 12 or 13; it literally means 'daughter of the commandments'.
32	**Seven blessings**	Blessings recited by the rabbi and congregation at a wedding ceremony.
33	**Pikuach Nefesh**	The principle that nearly any religious law can be broken in order to preserve human life.
34	**persecution**	Discrimination against people because of their beliefs.
35	**anti-Semitism**	Persecution of Jewish people.
36	**Holocaust**	The killing of six million Jews by Nazi Germany. Jews sometimes call this the Shoah, meaning calamity or catastrophe.
37	**Free will**	The ability to choose how to act.
38	**Hester panim**	The idea of Orthodox rabbi Eliezer Berkovitz that God 'hid his face' during the Holocaust because he could not interfere with free will.
39	**Israelis**	People who live in Israel and are mainly Jewish.
40	**Palestinians**	People who live in an around the state of Israel and are mainly Muslims.
41	**Zionism**	A Jewish movement that originally aimed to establish, and now aims to continue, the Jewish state of Israel.

Box 3:
One God:

- The Jewish belief about God can be put very simply. There is only one God.
- He created the world and He sees and knows everything.
- God gave them his laws for two reasons:
  1. So that they would know how to worship Him;
  2. So that they would be able to show other people how to live in a kind and caring way.
- Jews believe that this relationship with God will continue only so long as they remain faithful to Judaism.

Box 4: Groups within Judaism

Orthodox Jews (includes Hasidic Jews)	Conservative Jews	Reform Jews & Liberal Jews	Secular Jews
Jews who believe in maintaining the traditional beliefs and practices of Judaism and the laws given by God.	Jews who preserve rituals and traditions but are more flexible in interpreting Jewish laws than Orthodox Jews.	Two different groups within Judaism who share the beliefs that Judaism can change or modernise over time.	Jews who are born into the religion, but do not believe in God.

Box 5:
The Messiah:

1. Jews look forward to the coming of the Messiah, God's messenger of peace.
2. Then everyone will obey God's commandments.
3. When this happens, the world will be at peace.
4. Christians believe that Jesus was the Messiah. But Jews look at the world today and say that they are still waiting.
5. They are waiting for a human being who will be so special that he will bring everyone together.
6. There are different ideas of what the Messiah might be like, and some Jews see this as a spiritual force that will improve the world, rather than a special man.

Box 6:
Source of Wisdom and authority 1 – part 1: (Encouragement)
(Psalm 23.1-6)
1. The LORD is my shepherd, I lack nothing.
2. He makes me lie down in green pastures, he leads me beside quiet waters,
3. he refreshes my soul. He guides me along the right paths for his name's sake.

Box 7:
Source of Wisdom and authority 1 – part 2: (Encouragement)
(Psalm 23.1-6)
4. Even though I walk through the darkest valley, I will fear no evil, for you are with me; your rod and your staff, they comfort me.
5. You prepare a table before me in the presence of my enemies. You anoint my head with oil; my cup overflows.
6. Surely your goodness and love will follow me all the days of my life, and I will dwell in the house of the LORD forever.

Box 8:
Source of Wisdom and authority 2: (Recited at difficult times)
(Psalm 22.1-2)
1. My God, my God, why have you forsaken me? Why are you so far from saving me, so far from my cries of anguish?
2. My God, I cry out by day, but you do not answer, by night, but I find no rest.

Box 9:
Source of Wisdom and authority 3: (Wisdom)
(Proverbs 4.5-7)
5. Get wisdom, get understanding; do not forget my words or turn away from them.
6. Do not forsake wisdom, and she will protect you; love her, and she will watch over you.
7. The beginning of wisdom is this: Get wisdom. Though it cost all you have, get understanding.

BASIC RULES

1. How do you start a football match? The football game is started by a kick off in the centre of the pitch.

2. What's the number of players on each side during a professional match? In a full sided game each team consists of 11 players.

3. What happen when the ball goes off at the side of the pitch? If the ball goes off the side of the pitch it is a throw in to the team that didn't touch the ball last.

4. What happen if the ball goes off at the end of the pitch?
If the ball goes off the end of the pitch it is a corner or a goal kick depending who the ball touched last.

KEY TERMINOLOGY

4. What is meant by the term offside?
If a player is past the opponent's last defender and in the opposition half when the ball is passed they are offside and an indirect free kick is awarded to the opposition team.

5. What is meant by the term free-kick?
The referee stops the game and place the ball where a foul or infringement occurred, either direct, from which a goal may be scored, or indirect, from which the ball must be touched by at least one other player for a goal to be allowed

6. What is meant by the term marking?
This is where you mark someone on the other team when they have the ball in order to make it harder for them to make a pass or to get free into a space to receive the ball.

7. What is meant by the term VAR?
The video assistant referee (VAR) is a match official in association football who reviews decisions made by the head referee with the use of video footage and a headset for communication.

TEACHING POINTS FOR PASSING

8. What are the teaching points for the SHORT PASS?
- Non kicking foot next to the ball
- Use the side of the kicking foot to contact the ball following a short back swing
- Keep head over the ball to improve accuracy and ensure ball stays on the ground
- Follow foot through to generate more power

9. What are the teaching points for the LONG PASS?
- Non kicking foot next to the ball
- use the front (laces) of the kicking foot to contact the ball following a bigger back swing (flexion of the knee)
- keep head over the ball to improve accuracy of the pass
- lean back slightly to help generate height if required on the pass
- follow foot/leg through to generate more power.

10. What are the teaching points for a HEADER?
- Keep eyes focused on the ball when preparing to header
- use the forehead to contact the ball
- move feet to ensure body is slightly behind the ball before heading
- use neck to generate more power on the header
- defensive headers are normally headed high with increased distance whereas attacking headers on goal are normally headed down to make it more difficult for the goal keeper to save
- Perform a jump before the header to increase power and give yourself more chance of beating the opponent to the header.

FULL FOOTBALL POSITIONS

1. Goalkeeper
2. Wing-Back
3. Full-back
4. Sweeper
5. Centre-back
6. Defensive midfielder
7. Winger
8. Central Midfielder
9. Striker
10. Attacking Midfielder
11. Forward

Key skills:

1. How do you dribble? Head up, spread fingertips over ball, bounce at waist height.

2. How do you perform a chest pass? W shape behind ball, chest height, follow through.

3. How do you perform a bounce pass? As a chest pass but ball will bounce before player.

4. How do you demonstrate a set shot? knees bent, strong hand on bottom of ball, other hand supporting, extend elbow to 90 degrees towards net.

5. How do you demonstrate a lay up? Strong hand on the bottom of ball, other hand supporting. Right right hand dribble, step right, jump left, aim for top corner of black box.

6. How do you perform a jump shot? Landing on alternate feet, first foot to land is static and pivots, ball must be released as jump is executed.

7. How do you man to man defend? Knees bent, straight back, arms out, follow player (watch their belly button).
What is zone marking? A strategy of team defense often used around the key. Prevents attacking players getting into the zone.

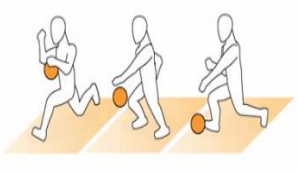
8. What is rebounding? Regaining possession after a shot has been missed.

9. What is the offence? The team with the ball are the offending team and are aiming to shoot at the basket and score. only chance that the team has a shot at the basket and scoring**.**

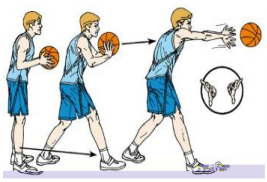
10. What is the defense? Preventing an opportunity for the opposition to score.

11. What is an assist? Helping a teammate to score.

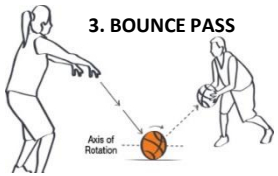
1. DRIBBLING



2. CHEST PASS



3. BOUNCE PASS



Rules, techniques, tactics:

12. How many players are on the court during a game? A game is played between 2 teams with 5 players on the court.

13. What is the aim? Players are aiming to score as many points in the time allocated by shooting through the hoop.

14. Can you move with the ball? Players cannot travel with the ball or perform a double dribble (dribbling, picking up the ball, continuing to dribble). Players cannot hold the ball for longer than 5 seconds.

15. What happens if the ball goes out of court or if a point is scored? If the ball goes out of court then a side line ball is taken by the opposite team. If a point is scored the ball goes to the opposition from the backline.

16. What happens after the ball has crossed the mid line of the court in an offensive situation? Once the offense (attacking team) has brought the ball across the mid line of the court, they cannot go back across the line during possession.

17. What is a foul given for? Hitting, holding or pushing an opponent.

18. What happens if the shooter is fouled? 1 – 3 free throws can be awarded worth 1 point each.

19. How long does a basketball game last? A game is made up of 4 quarters of 12 minutes so a total of 48 minutes. However regulation time is stopped for many aspects of gameplay including fouls, ball out of bounds and timeouts so a game can be up to 2 and a half hours!

20. How is basketball scored?
3 points are awarded if the ball is successfully shot through the hoop form behind the 3 point arc (see court diagram).
2 points are awarded if the ball is successfully shot within the 3 point arc.
1 point is awarded if a foul is committed and they score their penalty shot. A player is given one point for every successful foul shot.

BASIC RULES

1. What is the footwork rule? Once a netball player puts their first foot down they then can't pick this foot up and put it back down again whilst holding the ball (cannot walk with the ball).

2. What is obstruction? You cannot stand within a metre (three feet) of the person holding the ball. Feet must be 1 metre away from them, then you are allowed to raise your hands to mark. If you raise your hands before your feet are far enough away this is called 'arms before distance' and a free pass is given to the other team.

3. What is contact? You are not allowed to contact any part of the player or the ball during the game. If you touch them then a free pass is given to the other team.

4. How do you score in endball?
You have to pass to someone on your team and they have to be over the line and catch the ball without dropping it.

KEY TERMINOLOGY

4. What is meant by the term interception?
Where you stop the ball in the middle of the air going between two players of the opposite team (like piggy in the middle). You can either knock it off course, or catch it to gain possession.

5. What is meant by the term dodging?
Where you manage to lose your opponent and get into a space. You can use a sprint or fake dodge and you must use agility – changing direction at SPEED in order to lose your opponent effectively?

6. What is meant by the term marking?
This is where you mark someone on the other team when they have the ball in order to make it harder for them to make a pass or to get free into a space to receive the ball.

7. What is meant by the term crowding?
This is something you should avoid in netball. You shouldn't all crowd around in the same space, but move to an open area on the court so that it is easier to receive the ball or run into a space.

TEACHING POINTS FOR PASSING

8. What are the teaching points for the CHEST PASS?
- Ball should be released at chest height.
- Fingers spread around the ball in W shape.
- Elbows tucked in (no chicken wings)
- Transfer weight forward and push the ball.
- Extend and follow through with arms, wrists and fingers.
- Path of ball should be flat and fast.

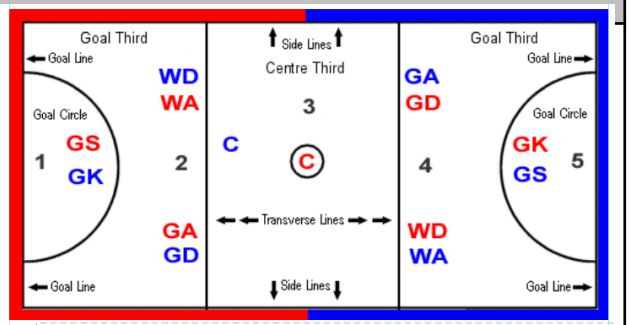
9. What are the teaching points for the BOUNCE PASS?
- Feet **shoulder**-width apart in opposition, with knees bent.
- Place hands each side and slightly behind the ball, with the fingers comfortably spread.
- Hold the ball at waist level, with elbows tucked in.

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

FULL NETBALL POSITIONS

11. Number of players?
7

12. Names of positions?
Goal Shooter (GS),
Goal Attack (GA),
Wing Attack (WA),
Centre (C)
Wing Defence (WD),
Goal Defense (GD)
Goal keeper (GK).



YEAR 7 – LENT TERM- SORTING AND SEARCHING ALGORITHMS

Key vocabulary	
Linear Search	Data may be in any order to complete a linear search. Each item is inspected in turn to see whether it is what is being searched for. If an item is found, then True is returned, else the next element is inspected until all items have been searched. If nothing is found by the end of the algorithm then False is returned.
Binary Search	If a list is sorted (numerical or alphabetical order) then a more efficient algorithm can be used. It works by repeatedly dividing the list into half and searching in the appropriate half.

Key terms- Sorting		
1	**Bubble sort**	Works by repeatedly going through the list to be sorted, comparing each pair of adjacent elements. If the elements are in the wrong order they are swapped, else they are left in position.
2	**Insertion sort**	Sorts data one element at a time. The algorithm takes one data item from the list and places it in the correct location in the list. This process is repeated until there are no more unsorted items in the list. More efficient than bubble sort.
3	**Merge sort**	This is a two-stage sort. Firstly the list is split in half into sub lists repeatedly. The algorithm stops splitting the lists when each list has only 1 element in it. The second stage involves repeatedly merging the lists in order until there is only one sub list remaining.

Data types		
Data Type	This indicates how the data will be stored. The most common data types are integer, string, and float/real.	Casting code
String	A combination of letters, numbers or characters. (eg, Hello, WR10 1XA)	str(x)
Integer	A whole number. (eg. 1, 189)	int(x)
Float/Real	A decimal number, not a whole number. (eg. 3.14, -26.9)	float(x)
Boolean	1 of 2 values. (eg. True, False, Yes, No)	bool(x)
Char	A single character	char(x)

Key terms- Programming		
1	Python	A programming language used to write programs.
2	Shell	The place where code is run.
3	Code editor	The place where code is written.
4	Programming	The process of writing computer programs.
5	Algorithm	A set of rules/instructions to be followed by a computer system.
6	Flowchart	A visual method of planning an algorithm using symbols.
7	Pseudocode	A language similar to English which is used to plan algorithms.
8	Code	The instructions that a program uses.
9	Sequence	Parts of the code that run in order and the pathway of the program reads and runs every line in order.
10	Selection	Selects a pathway through the code based on whether a condition is true.
11	Iteration	Code is repeated (looped), either while something is true or for a number of times.
12	Variable	A value that will change whilst the program is executed. (eg. temperature, speed)
13	Function	A collection of code that works outside the main program. These are created to speed up programming. They can be called from a single line of code at any time.
14	Comparative Operator	A symbol used to compare multiple values.
15	Arithmetic operator	A symbol used to manipulate numerical values.
16	Syntax	The punctuation/way that code has to be written so that the computer can understand it. Each programming language has its own syntax.
17	Syntax error	An error produced when the computer cannot understand the code which has been written.
18	Logic error	An error produced when a program is understood by the computer but does not perform as the programmer expects.

Python -> English	
`print("hello!")`	Prints a value on screen (in this case, hello!)
`input("")`	Inputs a value into the computer.
`x = input("")`	Inputs a value and stores it into the variable x.
`x = int(input(""))`	Inputs a value into x, whilst also making it into an integer.
`answer = x + y`	Saves the result of x and y added together in a variable named answer.
`print(str(x))`	Prints the variable x, but converts it into a string first.
`print("Hello", "World")`	Prints the two strings concatenated with a space between. This code would output "Hello World".
`age = 12` `print("Age: " + str(age))`	The + joins together two variables when printing. Str has to be used to cast age to be a string. This code will output "Age: 12".
`if name == "Fred":`	Decides whether the variable 'name' ha a value which is equal to 'Fred'.
`else:`	The other option if the conditions for an if statement are not met (eg. name = 'Bob' when it should be Fred)
`elif name == "Tim":`	elif (short for else if) is for when the first if condition is not met, but you want to specify another option.
`# COMMENT`	# is used to make comments in code – any line which starts with a # will be ignored when the program runs. They are used to describe the code to a programmer.
`for i in range(0,10):` `  # WRITE CODE HERE`	Repeats any code indented after this line a set number of times, in this case, 10.
`while x < 10:` `  # WRITE CODE HERE`	Repeats any code indented after this line until a condition is met, in this case x becoming equal to or greater than 10.
`list = ["","",""]`	Creates a variable and makes it an array – a list which can store many values.

`MOD`	Modulus e.g. `12MOD5` gives 2
`DIV`	Quotient e.g. `17DIV5` gives 3
`^`	Exponentiation e.g. `3^4` gives 81

Comparative operators	
==	Equal to
!=	Not equal to (or different to)
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

```
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))
if num1 > num2:
    print (num1, " is greater than ", num2)
if num1 < num2:
    print (num2, " is greater than", num1)
if num1 == num2:
    print (num1, "is equal to", num2)
```

Validation Type	Where	Reason
Presence check	Sales	To make sure that each time the number of sales for each month is entered rather than having blank entries.
Presence check	Name	To make sure that a staff member's name is entered
Format check	Sales	To make sure that the sales are a numerical value

Arithmetic operators

Operation	Symbol	Example	Output
Addition	+	2 + 10	12
Subtraction	-	9 – 6	3
Multiplication	*	5 * 4	20
Division	/	5 / 2	2.5
Floor Division	//	7 // 2	3
Remainder	%	7 % 3	1

Theatre Makers	Voice and Movement Revision	Rehearsal Techniques
When see a play you are aware of the performers, but you might not think about the other theatre makers who do not appear on stage. **The Playwright** writes the script of the play including the stage directions and the dialogue. **The Performer** has a role on stage. They appear in the production, for example as an actor, dancer or singer. **The Understudy** learns a part, including lines and movements so that they are able to take over a role for someone if needed when there is a planned or unexpected absence. **The Lighting Designer** designs the lighting states and effects that will be used during the performance. **The Sound Designer** design the sound required for a production which may include music and sound effects. **The Costume Designer** designs what the actors wear on stage making sure that the costumes are appropriate for the style and the period of the play. **The Set Designer** designs the set of the play and the set dressing. They may also create/source props. All must be appropriate for the style and period of the play. **The Director** oversees the whole production. They develop a concept for the play and liaise with the designers and performers.	**Voice Key Words** **Volume**: Loud to quiet **Crescendo**: Increasing volume **Pitch**: Deep or squeaky **Pace/Tempo**: Fast or slow **Rhythm**: Fluctuations in pace **Pause**: Breaks in speech **Inflection**: Emphasis on a word **Articulation**: Emphasis on letters. **Tone**: Emotion **Clarity**: Clearly say words **Accent**: A way of speaking that denotes where you are from  **Movement Key Words** **Movement**: e.g. rushing in or stamping their foot excitedly. **Stance**: How the character stands. **Gait**: The way the character walks. **Posture**: How the character stands or sits e.g. slouch or straight. **Proxemics:** The space between the characters creates meaning. **Levels**: Suggest status e.g. a dominant character may be higher up **Space:** A character can demand a lot of space or hide in a small corner.   	• **Role on the Wall:** Draw an outline of your character. Annotate it to reflect the character's thoughts, feelings, fears, circumstances etc. ▪ **Hot-Seating:** An actor sits in the hot-seat and is questioned in role. They spontaneously answer questions. ▪ **Inner Thoughts:** Whilst rehearsing a scene, one person will shout "Freeze, inner thoughts". The actor should freeze and spontaneously say out loud what the **character** is thinking. ▪ **Conscience Corridor:** Performers make two lines facing each other. The **protagonist** poses a question such as "Should I put Granddad in a basket and leave him by the side of the road"? Actors on each side of the corridor give reasons for and against.   ▪ **Bigger Bigger Bigger:** Rehearse one scene several times increasing the energy in gesture/movement, exaggeration of facial expression and volume ▪ **Non-Verbal Body Language:** Perform a scene without speaking. Create meaning through mime.

Play Scripts -This term, you will need to learn all of the lines from ONE play below and be able to perform on stage without a script. Below are the shortened versions. You will receive the full scripts in lessons.

'Bang Out of Order'

Teenager 1: Hey, look who it is!
Teenager 2: Old man Harris.
Teenager 1: Apparently we're being too loud!
Teenager 2: Is that right? Well turn your hearing aid down!
Teenager 1: Yeah, go back to your pipe and slippers granddad!
Teenager 2 Scum! Who do you think you're calling scum?
Teenager 1: I'm trash am I?
Teenager 2: You wanna watch your mouth mate.
Teenager 1: Who are you calling trash?
Teenager 2: Come down here and say that.
Teenager 1: You wanna get a life! Sad old man!
Teenager 2 Come down here and shut me up!
Teenager 1: I'll bang you out.
Teenager 2: Gonna call the police are ya? I'm so scared.
Teenager 1: Jog on Granddad!
Teenager 2: Who cares if you know where I live?
Teenager 1: Aint you got nothing better to do?
Teenager 2 I said I never touched your car!
Teenager 1 Go on then, call the police
Teenager 2 I'll give you something to moan about.
(The teenagers begin to vandalise granddad's car)

'The Gate Escape'

Teacher 1: Where were you?
Teacher 2: Where did you go?
Teacher 1: What on earth were you doing?
Teacher 2: You could have been killed.
Teacher 1: People get into all sorts of trouble when they truant.
Teacher 2: All sorts of trouble
Teacher 1: What if there had been a fire?
Teacher 2: We wouldn't have known that you weren't in the building.
Teacher 1: A fireman could have lost his life looking for you!
Teacher 2: Now just to show you how angry we are…
Teacher 1: … We're going to ask you to…
Both: Show us your planner!
Teacher 2: Are you laughing?
Teacher 1: Are you finding this funny?
Teacher 2: You've just lost your break…Teacher 1: …and your lunch
Teacher 2: You should be focused on your exams
Teacher 1: You should be focused on your future

Teacher 2: I'll be calling your father.
Teacher 1: You're on your final warning!
Teacher 2: We really have had enough
Teacher 1: If you break one more school rule…
Both: You'll be excluded!

'Missing Dan Nolan'

Family 1: I was talking to this chap who lost his daughter.
Family 2: Stop it.
Family 1: She'd been abducted.
Family 2: You're just upsetting yourself.
Family 1: I want to know what's happened.
Family 2: I know.
Family 1: I can't stand not knowing.
Family 2: We have to face it. (pause) He could be gone forever.
Family 1: I can't.
Family 2: I know it hurts.
Family 1: I can't just do nothing.
Family 2: Come and sit down.
Family 1: I'm going out to see if I can see him.
Family 2: You've tried. You won't find him.
Family 1:He's probably round one of his friends.
Family 2: Do you want me/us to come with you?
Family 1: No, I'll only be a moment
Family 2: Please.
Family 1: No.
Family 2: Fine.

A. Strings Section/Family

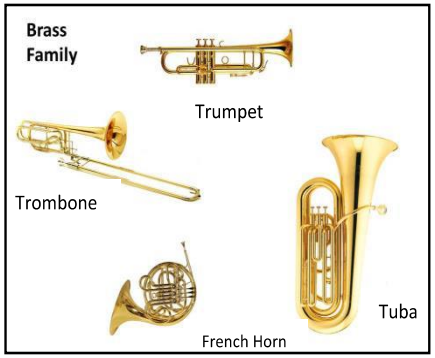
Made from wood and have strings. They are usually played with a **BOW** (**ARCO**) – not the Harp *(shown right)* but can also be **PLUCKED** (**PIZZICATO**). The smaller the instrument, the **HIGHER PITCHED** it is. The bigger the instrument, the **LOWER PITCHED** it is. However, the Harp has many more strings so can play both high- and low-pitched notes.

B. Woodwind Section/Family

A selection of instruments divided into two subsections: **FLUTES** (create a sound by air passing over a small hole and include the Flute and Piccolo) and **REEDS** (use a piece of bamboo reed to create a vibration). The Saxophone *(shown above right)* is not traditionally used in an orchestra. However, some modern composers have included it.

C. Brass Section/Family

There are more brass instruments used in brass bands, but the orchestra normally has four. They are made of metal and the sound is made by blowing into the mouthpiece by buzzing the lips in a similar way to blowing a raspberry! The bigger the instrument, the lower the pitch. The smaller the instrument, the higher the pitch – the Trumpet is the highest.



D. Percussion Section/Family

Includes a vast range of instruments which produce sound when *hit, struck, scraped or shaken*. These fall into two subsections: **TUNED PERCUSSION** (able to play different pitches) and **UNTUNED PERCUSSION** (*e.g. drums)*

TUNED PERCUSSION

UNTUNED PERCUSSION

E. Key Words

ORCHESTRA – A large **ENSEMBLE** (group of musicians) divided into four **SECTIONS** or **FAMILIES** of musical instruments – **STRINGS, WOODWIND, BRASS** and **PERCUSSION -** led by a **CONDUCTOR** who stands at the front of the orchestra and directs it. They will indicate the main beats in the music using a **BATON** (a "stick" that they hold and beat time with). All musicians look at the conductor whist playing as they are ultimately in control of the whole piece.

SONORITY (also called **TIMBRE**) – Describes the **unique sound or tone quality** of different instruments and the way we can identify orchestral instruments as being distinct from each other – "each instruments' own unique sound". Sonority can be described by many different words including – *velvety, screechy, throaty, rattling, mellow, chirpy, brassy, sharp, heavy, buzzing, crisp, metallic, wooden etc.*

PITCH - The **highness** or **lowness** of a sound, a musical instrument or musical note (high/low, getting higher/lower, step/leap).

FANFARE – A short, lively, loud piece of music, usually for **BRASS INSTRUMENTS** and sometimes **DRUMS** and other **PERCUSSION**. A Fanfare is usually warlike or victorious in character and can be used to mark the arrival of someone important, give a "signal" e.g. in battles or be used to signal the opening of something *e.g. a large sporting event or similar ceremony*. Fanfares often use only notes of the **HARMONIC SERIES** – a limited range of notes played by bugles and Valveless trumpets.

F. Map/Plan of an Orchestra

KEYWORDS

1- Time Signature: to specify how many beats are to be contained in each bar and which note value is equivalent to one beat.

2- Bar: Each bar usually has the same number of beats in it. Music that feels like 1-2-3-4 will be divided into bars with four beats worth of music in each bar.

3- Barline: The bar line is a vertical line written in the music which separates the **bars**.

4- Rest: an interval of silence in a piece of music, marked by a symbol that corresponds to a particular note value.

5- Melody: the main tune of a song.

6- Phrase: a short musical passage; a musical sentence.

7- Pentatonic: 5-notes. A pentatonic scale is a series of 5-notes used to create a piece.

8- Call and Response: 2 phrases that occur in different parts one after another. Often a solo part then repeated by a chorus (African music).

9- Question and Answer: 2 phrases that occur one after another, the second in direct response, and complimentary to the first.

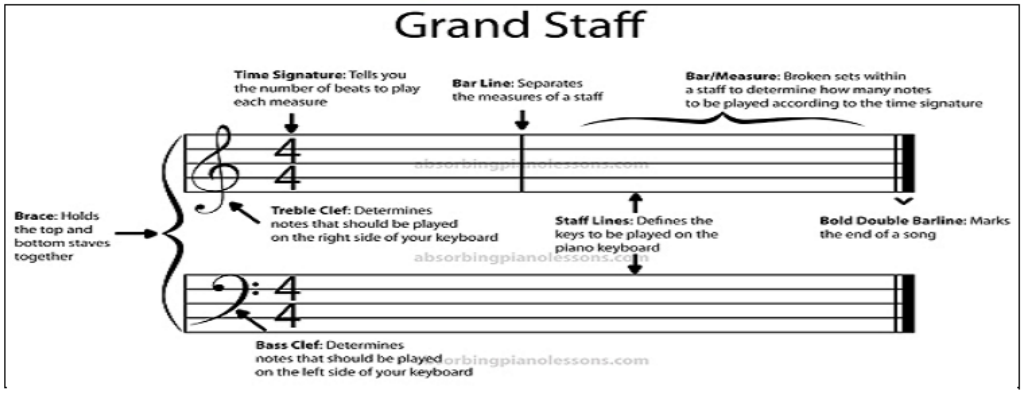
10- Ostinato: a persistent phrase or motif repeated over several bars or more.

11- Dorian mode: a medieval **mode** whose scale pattern is that of playing d to d on the white keys of a piano (T-s-T-T-T-s-T).

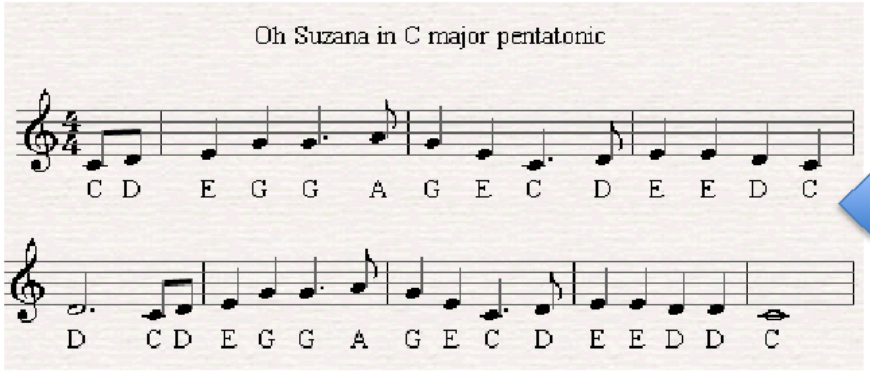
12- Drone: an accompaniment where a note is continuously heard/played throughout a piece

13- Harmony: parts that play together simultaneously create harmony. Often accompanying or secondary parts to a melody.

14- Dictation: the ability to hear a piece of music and quickly write it down.



Note	Name	Beats	Rest	Note	Name	Beats	Rest
𝅝	Semibreve, Whole Note	4 beats	𝄻	𝅝.	Dotted Semibreve, Dotted Whole Note	6 beats	𝄻.
𝅗𝅥	Minim, Half Note	2 beats	𝄼	𝅗𝅥.	Dotted Minim, Dotted Half Note	3 beats	𝄼.
♩	Crotchet, Quarter Note	1 beat	𝄽	♩.	Dotted Crotchet, Dotted Quarter Note	1½ beats	𝄽.
♪	Quaver, Eighth Note	1/2 beat	𝄾	♪.	Dotted Quaver, Dotted Eighth Note	3/4 beat	𝄾.
𝅘𝅥𝅯	Semiquaver, Sixteenth Note	1/4 beat	𝄿	𝅘𝅥𝅯.	Dotted Semiquaver, Dotted Sixteenth Note	3/8 beat	𝄿.



5 characteristics of a good melody

A Good Melody…

1. Starts and ends on the same note (C)
2. Moves mainly by step
3. Has a smooth contour/shape
4. Has 2 or 4 bar phrases
5. Uses similar short motifs to give it a clear character

Annotate the melody above to identify its use of the '5 characteristics of a good melody'.

A. Key Terms

Keyword	Description
1. Line	Line is the path left by a moving point. For example, a pencil or a brush dipped in paint. A line can be horizontal, diagonal or curved and can also change length.
2. Shape	A shape is an area enclosed by a line. It could be just an outline or it could be shaded in. Shapes can be geometric or irregular.
3. Form	Form is a three dimensional shape, such as a cube, sphere or cone. Sculpture and 3D design are about creating forms.
4. Colour	Red, yellow and blue are primary colours, which means they can't be mixed using any other colours. In theory, all other colours can be mixed from these three colours.
5. Tertiary Colours	Tertiary colours are created by mixing a primary colour and the secondary colour next to it on the colour wheel.
6. Complementary Colours	Complementary colours are colours that are opposite each other on the colour wheel. When complementary colours are used together they create contrast. Adding a colour's complementary colour will usually make a darker shade. This is often preferable to adding black.
7. Pattern	A design that is created by repeating lines, shapes, tones or colours. The design used to create a pattern is often referred to as a motif. Motifs can be simple shapes or complex arrangements

Keyword	Description
8. Apply	To use knowledge, skills and understanding and to employ appropriate techniques when developing and progressing ideas.
9. Develop	To take forward, change, improve or build on an idea, theme or starting point.
10. Investigate	To enquire into, examine in depth, and/or analyse the relevance of a chosen subject and associated sources.
11. Realise	To achieve, attain and/or accomplish your intentions.

C. Art Styles

16. Ndebele art originates from the Ndebele tribe in South Africa
17. Traditionally Ndebele women would paint their houses in this style to celebrate events in their family
18. Traditionally locally available materials such as clay and dung were used.
19. Today acrylic paint is used
20. Esther Mahlangu is a famous Ndebele Artist
21. Esther Mahlangu was born in 1935 and is still alive.

C. Colour Theory

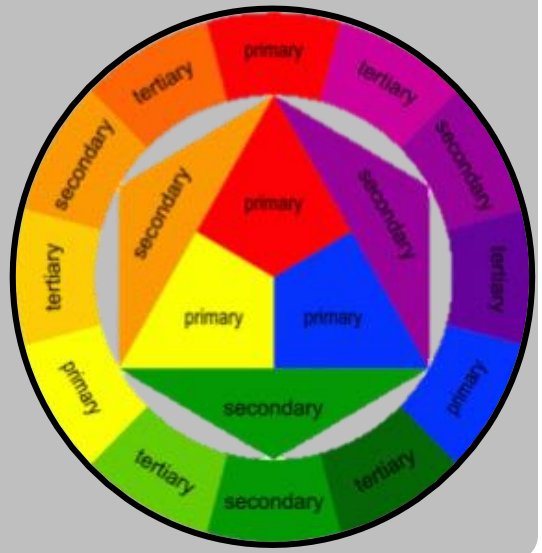
Key terms 4 – 6 refer to the colour wheel.

13. Warm colours are colours on the red side of the wheel. These are red and include orange, yellow and browns.
14. Cool colours are colours on the blue side of the wheel. These are blue and include green, purple and most greys.

15.

Primary	Secondary
red + yellow	=orange
red + blue	=purple
blue + yellow	=green

12. This is called a **Colour Wheel.**



YEAR 7 – LENT TERM- ENGINEERING

LEARNING - LOVING - LIVING

MATERIALS AND KEYWORDS

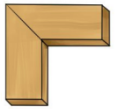
Manufactured— made by machine.

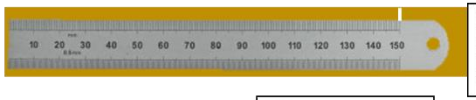
Ball bearing—A circular hard steel ball.

Acrylic plastic— Flat plastic that resembles glass.

Plywood— A sandwich of thin pieces of wood.

Mitre—A 45° cut in any material.



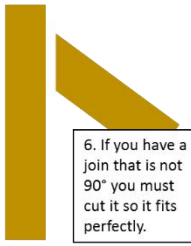


1. Measure the wood carefully with a steel rule. Draw a line with a sharp pencil.

2. You must use a tri square to draw a 90° line on the wood

3. You must cut in a waste part of the wood. Draw TWO lines (black) and cut in the middle (white).

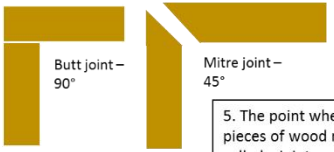
4. Cut the wood using a bench hook and tenon saw



6. If you have a join that is not 90° you must cut it so it fits perfectly.

Butt joint – 90°

Mitre joint – 45°



5. The point where two pieces of wood meet is called a joint.

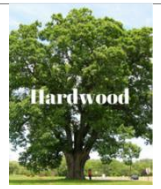
Steel— metal with hardness, elasticity, and strength.

Wood fibres— small particles of wood - often glued together to make manufactured board.

TYPES OF WOOD

Softwood—noun The wood from a conifer (such as pine, fir, or spruce) as distinguished from that of broadleaved trees.

Hardwood—noun The hard, compact wood or timber of various trees, as the oak, cherry, maple, or mahogany.



PROPERTIES AND CHARACTERISTICS OF MATERIALS

	Absorbency	To be able to soak up liquid easily.
	Strength	The capacity of an object or substance to withstand great force or pressure.
	Elasticity	The ability of an object or material to resume its normal shape after being stretched or compressed; stretchiness.
	Plasticity	The quality of being easily shaped or moulded.
	Malleability	To be able to be hammered or pressed into shape without breaking or cracking.
	Density	The quantity of mass per unit volume of a substance
	Effectiveness	The degree to which something is successful in producing a desired result; success.
	Durability	The ability to withstand wear, pressure, or damage.

UNDERSTAND THE MAKING PROCESS

1	Preparation	Drawing, CAD, sketches, plans.
2	Marking Out	Pencil, scribe, steel rule, tri square, marking gauge, calipers, centre punch.
3	Modification	Saw, jigsaw, scroll saw, laser cutter, pliers, hammer, drill, file, glass paper.
4	Joining	Riveting gun, spanner, screwdriver, hot glue, gun , soldering iron, nail gun.
5	Finishing	Hand sander, glass paper, disc sander, buffing wheel, polish, spray paint, varnish.

TOOLS AND EQUIPMENT

Coping saw – cutting curves 	Tenon Saw – cutting straight 	Bench hook – holding wood 	Glass paper – file filing 
Hand file – rapid filing 	Pillar drill – making holes 	Steel rule – accurate measure 	Disc sander – rapid sanding 

HEALTH & SAFETY LEGISLATION

Health and Safety at work Act	Personal Protective Equipment	Manual Handling Operations	Control of Substances Hazardous to Health	Reporting of Injuries RIDDOR

Key words: Food hygiene and safety

1. Bacteria – single celled organisms. Some can be harmful to humans.
2. Pathogenic – harmful or causing disease
3. Equipment – the tools used in practical lessons
Hygiene – routines that are necessary for good health. These usually involve cleanliness
4. Food hygiene – routines that should be followed to avoid potential health hazards in food.
5. Personal hygiene – routines that should be followed by people handling food to avoid contaminating food. E.g. Contaminated hands will spread bacteria around a kitchen very quickly, so having good personal hygiene is important
5. The four C's - Essential for maintaining food safety. They are Cleaning, Cooking, Chilling, Cross contamination
6. Cross contamination– transferring bacteria that should not be in food from one place to another. E.g. bacteria on unwashed hands will contaminate food.
9. Potential – The possibility of something happening in the future
10. Hazard - anything that can cause harm or danger
11. Recipe – A plan used to inform the cook or chef how to make a 'dish'.

8 guidelines for a healthy diet

1. Base your meals on **starchy carbohydrates**
2. Eat lots of fruit and vegetables **(5-7 portions per day)**
3. Eat plenty of fish
4. Cut down on **sugar** and **saturated fats**
5. Have no **more than 6gs of salt** a day
6. Be active and be a healthy weight
7. Drink **6-8 glasses of water** a day
8. Don't skip breakfast

Key routines for Food Hygiene and Safety in the food room

Personal Hygiene	Why?		Safety rules	Why?	
P1. Wash hands in hot soapy water		To kill bacteria on your hands to stop contamination	**S1. Use oven gloves**		To stop injury – burns from baking trays
P2. Tie long hair back		To prevent hair going into the products you cook	**S2. Wash up in hot soapy water**		To stop cross contamination and kill bacteria
P3. Wear an apron		To protect your uniform and to prevent bacteria from your clothes contaminating your food	**S3. Bags, blazers and coats on hooks at all times**		To prevent injury – tripping up or falling over
P4. Roll sleeves up		To prevent bacteria contaminating your food	**S4. Pan handles in 'safe' position**		To prevent a fire and injuring from burns
P5. Remove jewellery		To prevent contamination of food by bacteria that live on jewellery.	**S5 Chairs under the desk or stacked**		To prevent injury – tripping up or falling over

Keywords : skills and equipment

Skills	How?		Equipment	Function?	
SK1. Claw grip		Fingers are held in a claw shape to hold food steady while slicing or cutting.	**E1. Knife (plural - knives)**		to cut, chop and slice food
SK2. Bridge hold		Use thumb and forefinger and grip either side of the ingredient. Use knife under bridge to cut.	**E2. Grater**		To quickly reduce the size of food products to very small pieces or shreds.
SK3. peeling		Removing the outer skin or covering of fruit and vegetables	**E3. chopping board**		To prepare food on especially when using knives. Using a colour coded system helps to prevent cross contamination
SK4. slicing		Cutting food into slices. e.g. Slice the carrot thinly	**E4. saucepan**		Used to boil, simmer or poach foods in.
SK5. chopping		To cut food into small pieces e.g. chop the onion in small, evenly sized pieces.	**E5. Vegetable peeler**		A special knife for removing skin or peel from fruit and vegetables.
SK6. grating		To reduce food into fine shreds by rubbing it on a grater.	**E6. Measuring jug**		Used to measure liquids e.g. water , milk accurately in millilitres (ml)

YEAR 7 – LENT TERM- FOOD AND NUTRITION – HEALTHY EATING

LEARNING - LOVING - LIVING

Key words: Nutrients and Eatwell Guide

1. **Wholegrain** - All parts of the cereal grain **is used**.
2. **Nutrient** – Chemical in food that give nourishment.
3. **Energy** – the strength needed for physical effort
4. **Immune system** – the body's defence against infectious diseases
5. **Clotting** – the process that blood undergoes to prevent bleeding
6. **Antioxidant** – a molecule that is able to stop the oxidation process in other molecule
7. **Haemoglobin** – a protein responsible for transporting oxygen in the blood
8. **Saturated fats** – Type of fat mostly from animal sources
9. **Absorb** – to take in or soak up
10. **Maintenance**– routines that are necessary for keep the body in good health.
11. **Diabetes**– a condition that causes a person's blood sugar level to become too high.
12. **Obesity**– diet related disease where the body contains too much stored fat.
13. **Cardiovascular disease (CHD)**- The narrowing of the arteries that supply your heart with oxygen rich blood, due to the build up of fatty deposits within the artery walls

The Eatwell Guide is the UK Healthy Eating Model. It shows what we should eat as a balanced diet. The size of the sections represents the proportion of our diet that particular food group should make up.

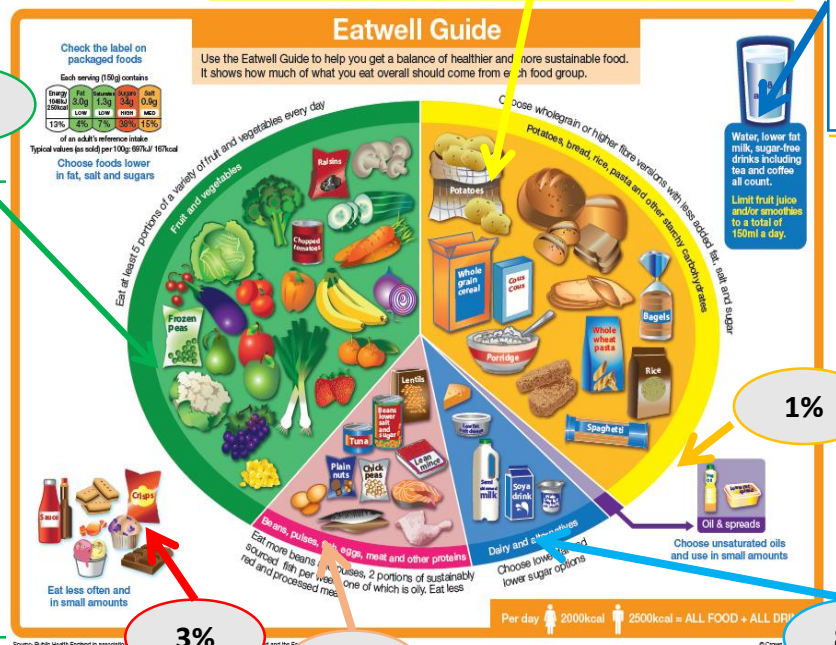
Nutrient	Function in the body
1. Macronutrient: Carbohydrates (Starch, sugar, fibre)	Needed by the body because they are the main source of energy in the body for movement. Needed by the body for digestion. (fibre)
2. Macronutrient: Protein	Needed by the body for growth Repair the body when it is injured Gives the body energy (only if the body doesn't have enough carbohydrates)
3. Macronutrient: Fat	Insulates the body from the cold and provides a 'cushion' to protect bones and organs such as the kidneys The body breaks down the fat stores to release energy Vitamins A, D, E and K are fat soluble vitamins so are stored in our body fat and released when needed.
1. Micronutrient: Vitamin A	Maintains normal vision Good maintenance of skin and the mucus membranes Helps with a healthy immune function **Fat soluble**
2. Micronutrient: Vitamin D	Absorption and use of calcium Maintenance and strength of bones and teeth **Fat soluble**
3. Micronutrient: Vitamin E	Antioxidant that helps protect cell membranes Maintains healthy skin and eyes **Fat soluble**
4. Vitamin K	Normal clotting of the blood Fat soluble
1. Micronutrient: Vitamin B complex	Healthy nervous system Energy release from foods **Water soluble**
2. Micronutrient: Vitamin C	Absorption of iron Production of collagen that binds connective tissues An antioxidant **Water soluble**
1. Mineral Calcium	Strengthens bones and teeth Bones are able to reach peak bone mass Clots blood after injury Promotes nerves and muscles to work properly
2. Mineral Iron	Supports the production of haemoglobin in red blood Helps transport oxygen around the body Vitamin C is required for absorption of iron

1. Starchy Foods
2. Provide slow release carbohydrate used by the body for energy
3. Choose wholegrains for increased fibre (good digestion, reduced risk of heart disease)

37%

Water Intake
A balanced diet must include water, it is required for nearly all brain and other bodily functions

39%



1%

Fats, Oils & Spreads
1. Provide fat soluble vitamins A,D,E & K
2. Are high in calories & energy so keep use to a minimum
3. choose unsaturated oils like olive oil

Fruits & Vegetables
1. Eat 5 portions s a day!
2. Choose a variety
3. Provides fibre for healthy digestion
4. Provides vitamins and minerals

3%

8%

12%

Food high in sugar and saturated fats are not part of a healthy diet and should be eaten in moderation
1. increased risk of weight gain/obesity
2. diabetes
3. tooth decay, cardiovascular disease (CHD)

Beans, Pulses, Eggs, Meat, Fish
1. Provide protein for growth, repair and maintenance of body cells
2. Choose a combination of plant proteins
3. Avoid eating too much processed meat like bacon and sausages

Dairy Foods
1. Provide calcium for healthy bones, teeth and nails
2. The body needs Vitamin D to absorb calcium effectively

Semaine 1

Les matières scolaires • School subjects	
le français	French
le théâtre	drama
la géographie/la géo	geography
la musique	music
la technologie	technology
l'anglais (m)	English
l'EPS (f)	PE
l'histoire (f)	history
l'informatique (f)	ICT
les arts plastiques (m)	art
les mathématiques/maths (f)	maths
les sciences (f)	science

Les opinions • Opinions	
Tu aimes/Est-ce que tu aimes ... ?	Do you like ... ?
J'aime ...	I like ...
J'aime beaucoup ...	I like ... a lot.
J'aime assez ...	I quite like ...
J'adore ...	I love ...
Je n'aime pas ...	I don't like ...
Je déteste ...	I hate ...
C'est ma matière préférée.	It's my favourite subject.
Moi aussi.	Me too.
T'es fou/folle.	You're crazy.

Semaine 2

Les raisons • Reasons	
C'est ...	It's ...
intéressant	interesting
ennuyeux	boring
facile	easy
difficile	difficult
génial	great
nul	rubbish
marrant	fun/funny
On a beaucoup de devoirs.	We have a lot of homework.
Le/La prof est sympa.	The teacher is nice.
Le/La prof est trop sévère.	The teacher is too strict.

Quelle heure est-il? • What time is it?	
Il est ...	It's ...
huit heures	eight o'clock
huit heures dix	ten past eight
huit heures et quart	quarter past eight
huit heures et demie	half past eight
neuf heures moins vingt	twenty to nine
neuf heures moins le quart	quarter to nine
midi	midday
minuit	midnight
midi/minuit et demi	half past twelve (midday/midnight)

Semaine 3

L'emploi du temps • The timetable	
le lundi	on Mondays
le mardi	on Tuesdays
le mercredi	on Wednesdays
le jeudi	on Thursdays
le vendredi	on Fridays
À [neuf heures] j'ai [sciences].	At [nine o'clock] I've got [science].
le matin	(in) the morning
l'après-midi	(in) the afternoon
le mercredi après-midi	on Wednesday afternoon
la récréation/la récré	breaktime
le déjeuner	lunch

La journée scolaire • The school day	
On a cours (le lundi).	We have lessons (on Mondays).
On n'a pas cours ...	We don't have lessons ...
On commence les cours à ...	We start lessons at ...
On a quatre cours le matin.	We have four lessons in the morning.
On étudie neuf matières.	We study nine subjects.
À la récré, on bavarde et on rigole.	At break, we chat and have a laugh.
On mange à la cantine.	We eat in the canteen.
On finit les cours à ...	We finish lessons at ...
On est fatigués.	We are tired.

Semaine 4

Qu'est-ce que tu manges? • What do you eat?/ What are you eating?	
Je mange ...	I eat/I'm eating ...
du fromage	cheese
du poisson	fish
du poulet	chicken
du steak haché	beefburger
du yaourt	yoghurt
de la pizza	pizza
de la purée de pommes de terre	mashed potatoes
de la glace à la fraise	strawberry ice-cream
de la mousse au chocolat	chocolate mousse
de la tarte au citron	lemon tart
des crudités	chopped, raw vegetables
des frites	chips
des haricots verts	green beans
Bon appétit!	Enjoy your meal!

Les mots essentiels • High-frequency words	
à	at
et	and
aussi	also
mais	but
très	very
trop	too
assez	quite
un peu	a bit
pourquoi?	why?
parce que	because
beaucoup (de)	a lot (of)
tous les jours	every day
aujourd'hui	today
pardon	excuse me
merci	thank you
est-ce que (tu) ... ?	do (you) ...?
qu'est-ce que (tu) ... ?	what do (you) ... ?
avec	with

Semaine 5

Special Test : you will only translate from English into French.
Revise the spelling of all vocabulary learnt in Michaelmas2

Semaine 1

Les ordinateurs et les portables • *Computers and mobile phones*

Qu'est-ce que tu fais ...	*What do you do/are you doing ...*
avec ton ordinateur?	*on your computer?*
avec ton portable?	*on your mobile phone?*
Je joue.	*I play/I'm playing games.*
Je surfe sur Internet.	*I surf/I'm surfing the net.*
Je tchatte sur MSN.	*I chat/I'm chatting on MSN.*
Je regarde des clips vidéo.	*I watch/I'm watching video clips.*
Je télécharge de la musique.	*I download/I'm downloading music.*
J'envoie des SMS.	*I text/I'm texting.*
Je parle avec mes ami(e)s/ mes copains/ mes copines.	*I talk/I'm talking to my friends/mates.*
J'envoie des e-mails.	*I send/I'm sending e-mails.*

La fréquence • *Frequency*

quelquefois	*sometimes*
souvent	*often*
tous les jours	*every day*
tous les soirs	*every evening*
tout le temps	*all the time*
de temps en temps	*from time to time*
une fois par semaine	*once a week*
deux fois par semaine	*twice a week*

Semaine 2

Qu'est-ce que tu fais? • *What do you do?*

Je fais du judo.	*I do judo.*
Je fais du parkour.	*I do parkour.*
Je fais du patin à glace.	*I go ice-skating.*
Je fais du roller.	*I go roller-skating.*
Je fais du skate.	*I go skateboarding.*
Je fais du vélo.	*I go cycling.*
Je fais de la danse.	*I do dance.*
Je fais de la gymnastique	*I do gymnastics.*
Je fais de la natation.	*I go swimming.*
Je fais de l'équitation.	*I go horse-riding.*
Je fais des promenades.	*I go for walks.*

Le sport • *Sport*

Je joue ...	*I play ...*
au basket	*basketball*
au billard	*billiards/snooker*
au foot(ball)	*football*
au hockey	*hockey*
au rugby	*rugby*
au tennis	*tennis*
au tennis de table/ au ping-pong	*table tennis*
au volleyball	*volleyball*
à la pétanque/aux boules	*boules*
sur la Wii	*on the Wii*
Tu es sportif/sportive?	*Are you sporty?*
Je suis (assez) sportif/ sportive.	*I'm (quite) sporty.*
Je ne suis pas (très) sportif/sportive.	*I'm not (very) sporty.*
Mon sportif/Ma sportive préféré(e) est ...	*My favourite sportsman/ sportswoman is ...*

Semaine 3

Qu'est-ce que tu aimes faire? • *What do you like doing?*

le soir/le weekend	*in the evenings/ at the weekends*
le samedi matin/ après-midi/soir	*on Saturday mornings/ afternoons/evenings*
J'aime ...	*I like ...*
... retrouver mes amis en ville.	*... meeting my friends in town.*
... regarder la télévision (la télé).	*... watching TV.*
... jouer sur ma PlayStation.	*... playing on my PlayStation.*
... écouter de la musique.	*... listening to music.*
... faire les magasins.	*... going shopping.*
... faire du sport.	*... doing sport.*
... jouer au football.	*... playing football.*
... traîner avec mes copains.	*... hanging out with my mates.*
... téléphoner à mes copines.	*... phoning my mates.*

Quand? • *When?*

en été	*in summer*
en hiver	*in winter*
quand il fait beau	*when it's good weather*
quand il fait chaud	*when it's hot*
quand il pleut	*when it rains*
quand il fait froid	*when it's cold*

Semaine 4

Les mots essentiels • *High-frequency words*

sur	*on*
en (été)	*in (summer)*
quand	*when*
tout/toute/tous/toutes	*all*
par (deux fois par semaine)	*per (twice a week)*
d'habitude	*usually*
d'abord	*first of all*
ensuite	*then/next*
puis	*then/next*

Qu'est-ce qu'ils font? • *What do they do?*

Il fait de la lutte.	*He does wrestling.*
Elle fait du jogging.	*She goes jogging.*
Elle a gagné le match.	*She won the match.*
Il est champion régional.	*He's the regional champion.*
Elle s'entraîne (trois) fois par semaine.	*She trains (three) times a week.*
Ils font de la musculation.	*They do weight training.*
Elles écoutent de la musique.	*They listen to music.*
Ils jouent au foot.	*They play football.*
Elles regardent la télé.	*They watch TV.*
Ils sont des clowns.	*They're clowns.*
Elles aiment le R&B.	*They like R&B.*

Semaine 5

Special Test : you will only translate from English into French.
Revise the spelling of all vocabulary learnt in Michaelmas2

Semana 1

¿Qué estudias? What do you study?

Estudio...	I study...	informática	ICT
ciencias	science	inglés	English
dibujo	art	matemáticas	maths
educación física	PE	música	music
español	Spanish	religión	RE
francés	French	teatro	drama
geografía	geography	tecnología	technology
historia	history		

Semana 2

¿Cuál es tu día favorito? What is your favourite day?

Mi día favorito es el lunes/ el martes.	My favourite day is Monday/Tuesday.	Porque...	Because...
Los lunes/martes estudio...	On Mondays/Tuesdays I study...	por la mañana	in the morning
¿Por qué?	Why?	por la tarde	in the afternoon
		estudiamos	we study
		no estudio	I don't study

Semana 3

Opiniones Opinions

¿Te gusta el dibujo?	Do you like art?	aburrido/a	boring
Sí, me gusta (mucho) el dibujo.	Yes, I like art (a lot).	difícil	difficult
		divertido/a	funny
No, no me gusta (nada) el dibujo.	No, I don't like art (at all).	fácil	easy
		importante	important
¿Te gustan las ciencias?	Do you like science?	interesante	interesting
Sí, me encantan las ciencias.	Yes, I love science.	práctico/a	practical
		útil	useful

Semana 4

Los profesores Teachers

El profesor/La profesora es...	The teacher is...	raro/a	odd
		severo/a	strict
paciente	patient		

¿Qué hay en tu insti? What is there in your school?

En mi insti hay...	In my school, there is...	una clase de informática	an ICT room
un campo de fútbol	a football field	una piscina	a swimming pool
un comedor	a dining hall	unos laboratorios	some laboratories
un gimnasio	a gymnasium	unas clases	some classrooms
un patio	a playground	No hay piscina.	There isn't a swimming pool.
una biblioteca	a library		

Semana 5

¿Cómo es tu insti? What's your school like?

Es...	It's...	grande	big
antiguo/a	old	horrible	horrible
bonito/a	nice	moderno/a	modern
bueno/a	good	pequeño/a	small
feo/a	ugly		

¿Qué haces durante el recreo? What do you do during break?

Como...	I eat...	Bebo...	I drink...
un bocadillo	a sandwich	agua	water
unos caramelos	some sweets	un refresco	a fizzy drink
chicle	chewing gum	un zumo	a juice
una chocolatina	a chocolate bar	Leo mis SMS.	I read my text messages.
fruta	fruit	Escribo SMS.	I write text messages.
unas patatas fritas	some crisps	Nunca hago los deberes.	I never do homework.

Semana 6

Expresiones de tiempo Time expressions

normalmente	normally	primero	first
a veces	sometimes	luego	then

Palabras muy frecuentes High-frequency words

algo	something	¿Por qué?	Why?
donde	where	porque	because
hay	there is/there are	también	also, too
o	or	tampoco	nor/neither
pero	but	y	and

Special Test : you will only translate from English into Spanish. Revise the spelling of all vocabulary learnt in Lent 1.

Semana 1

¿Cuántas personas hay en tu familia?	How many people are there in your family?		
En mi familia hay... personas.	In my family, there are... people.	mis primos	my cousins
mis padres	my parents	¿Cómo se llama tu madre?	What is your mother called?
mi madre	my mother	Mi madre se llama...	My mother is called...
mi padre	my father	¿Cómo se llaman tus primos?	What are your cousins called?
mi abuelo	my grandfather	Mis primos se llaman... y...	My cousins are called... and...
mi abuela	my grandmother	su hermano	his/her brother
mi bisabuela	my great-grandmother	sus hermanos	his/her brothers
mi tío	my uncle		
mi tía	my aunt		

Semana 2

Los números 20 – 100	Numbers 20 – 100		
veinte	20	setenta	70
treinta	30	ochenta	80
cuarenta	40	noventa	90
cincuenta	50	cien	100
sesenta	60		

¿De qué color tienes los ojos?	What colour are your eyes?		
Tengo los ojos...	I have... eyes.	marrones	brown
azules	blue	verdes	green
grises	grey	Llevo gafas.	I wear glasses.

Semana 3

¿Cómo tienes el pelo?	What's your hair like?		
Tengo el pelo...	I have... hair.	rizado	curly
castaño	brown	largo	long
negro	black	corto	short
rubio	blond	Soy pelirrojo/a.	I am a redhead.
azul	blue	Soy calvo.	I am bald.
liso	straight		

Semana 4

¿Cómo es?	What is he/she like?		
Es...	He/She is...	joven	young
No es muy...	He/She isn't very...	viejo/a	old
alto/a	tall	Tiene pecas.	He/She has freckles.
bajo/a	short	Tiene barba.	He has a beard.
delgado/a	slim	mis amigos	my friends
gordo/a	fat	mi mejor amigo/a	my best friend
guapo/a	good-looking	su mejor amigo/a	his/her best friend
inteligente	intelligent		

Semana 5

¿Cómo es tu casa o tu piso?	What is your house or flat like?		
Vivo en...	I live in...	cómodo/a	comfortable
una casa	a house	grande	big
un piso	a flat	moderno/a	modern
antiguo/a	old	pequeño/a	small
bonito/a	nice		

Semana 6

¿Dónde está?	Where is it?		
Está en...	It is in...	un pueblo	a village
el campo	the countryside	el norte	the north
la costa	the coast	el sur	the south
una ciudad	a town	el este	the east
el desierto	the desert	el oeste	the west
la montaña	the mountains	el centro	the centre

Palabras muy frecuentes	High-frequency words		
además	also, in addition	un poco	a bit
bastante	quite	mi/mis	my
porque	because	tu/tus	your
muy	very	su/sus	his/her
¿Quién...?	Who?		

Special Test : you will only translate from English into Spanish.
Revise the spelling of all vocabulary learnt in Lent 2.

Key term	Definition
1. Employment	When an individual works part-time or full-time under a contract of employment.
2. Labour market	The supply and demand for labour (employees provide the supply and employers the demand).
3. Labour force	All people who are of working age, and able and willing to work.
4. Employee	Someone who is paid to work for someone else.
5. Employer	A person or organization that you work for.
6. Salary	A fixed regular payment, typically paid on a monthly basis but often expressed as an annual sum.
7. Wage	A fixed regular payment earned for work or services, typically paid on a daily or weekly basis.
8. Bonus	An extra amount of money given to an employee, often based on work performance.
9. Contract	A contract is an agreement that sets out an employee's employment conditions, rights, responsibilities & duties.
10. Economy:	System of how money is made and used within a particular country or region.
11. Economic Growth	An increase in the capacity of an economy to produce goods and services.
12. Trade	To take part in the exchange, purchase, or sale of goods and services.
13. Industry	A group of manufacturers or businesses that produce a particular kind of goods or services.
14. Unemployment	When a person who is actively searching for employment is unable to find work.

The 5 Sectors of the Economy.

Primary Sector: this involves acquiring raw materials**.** For example, metals and coal have to be mined, oil drilled from the ground, rubber tapped from trees, foodstuffs farmed and fish trawled. This is sometimes known as extractive production.

Secondary Sector: this is the manufacturing and assembly process. It involves converting raw materials into components, for example, making plastics from oil. It also involves assembling the product, e.g. building houses, bridges and roads.

Tertiary Sector: this refers to the commercial services that support the production and distribution process, e.g. insurance, transport, advertising, warehousing and other services such as teaching and health care.

Quaternary Sector: this sector includes government, culture, libraries, scientific research, education, and information technology. These intellectual services and activities are what drives technological advancement, which can have a huge impact on short- and long-term economic growth.

Quinary Sector: this contains the highest levels of decision making in a society or economy, including top executives or officials in such fields as government, science, universities, non-profit, health care, culture, and the media. It may also include police and fire departments, which are public services as opposed to for-profit enterprises.

Key Term	Definition
1. Career	The job or series of jobs you do during your working life.
2. Occupation	Your job or profession.
3. Promotion	When an employee moves from one job or position to another that is higher in pay, responsibility, and status.
4. Redundancy	When an employer no longer requires the job role that is being carried out by an employee.
5. Retire	To leave your profession or job and end your active working life.
6. Pension	An amount of money paid regularly by the government or private company to a person who has retired.
7. Apprenticeship	Apprenticeships combine practical training in a job with study.
8. Internship	A period of work experience offered by an organization for a limited period of time, either paid or voluntary.
9. Traineeship	A traineeship is a course that includes a work placement. It can last from 6 weeks up to 6 months.
10. CV	A document that presents your skills and qualifications effectively and clearly.
11. Cover Letter	A letter that should accompany your application form or CV. It is short, introduces you, and explains why you are applying for a job.
12. Job Interview	A meeting in which an employer asks the person applying for a job questions to see whether they suitable.
13. Video Resume	A short video created by a candidate for employment and uploaded for prospective employers to review.
14. Entrepreneur	A person who sets up a business or businesses, taking on financial risks in the hope of profit.

What is the future of the Labour Market?

Young people will have longer careers. Rising life expectancy means young people will have an extended number of years in the workforce and will need to be **adaptable** and **flexible**.

A rise in average qualification levels will make a **lack of skills and qualifications** a bigger barrier to finding work and building a career.

More opportunities for young people to **work flexibly** with changes in technology and employment policy such as job share, remote working and flexible office space.

The working population will be **more diverse** with more younger, older, women & people with disabilities joining the labour market.

The growth in sectors such as **health** and **social care** are likely to continue to grow, and the nature of work will continue to change.

Key Term	Definition
1. Ambitious	Having or showing a strong desire and determination to work hard and succeed.
2. Motivated	Enthusiastic or determined to achieve goals.
3. Reliable	Someone who can be trusted to behave well, work hard and do what is expected of them.
4. Persistent	Refusing to give up or stop trying.
5. Team Player	A person who plays or works well as a member of a team
6. Self-Starter	A person sufficiently motivated or ambitious to work on their own initiative without needing direction.