YEAR 8 KNOWLEDGE ORGANISER

LENT TERM 2020/21

Trinity

Name:

Family Group:

LEARNING - LOVING - LIVING

CONTENTS PAGE

LEARNING – LOVING – LIVING

GENERAL INFORMATION

The knowledge organiser is a book that sets out the **important**, **useful** and **powerful knowledge** of a single topic on one page.

When used effectively, Knowledge Organisers are useful in:

- Helping build a foundation of **factual knowledge.**
- Embedding **revision techniques** for now and future studies (A-Level, College, University)
- Allowing knowledge to become stored in **long term memory** which frees up working memory for more complex ideas. It also allows you to connect concepts together, even across subjects

HOMEWORK EXPECTATIONS

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.

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.

MICROSOFT TEAMS

Remember to check TEAMS regularly for updates and additional home learning files including copies of your mastery booklets.

You can also ask your teachers questions on teams and view videos of 'how to use your knowledge organiser'.

HOMEWORK TIMETABLE

Year 8	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

EQUIPMENT CHECKLIST

Pencil case	Knowledge Organiser	2 Black or Blue pens
2 pencils and Eraser	Green Pen	Pencil Sharpener
Mini whiteboard and pen	Calculator	Ruler
Maths geometry set	Class book	

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	

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

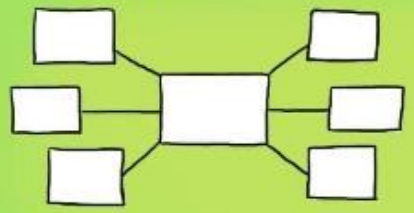
Before you start put away all your books & classroom materials.

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

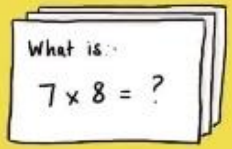
Create practice questions on a topic. Swap your questions with a partner & answer.

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

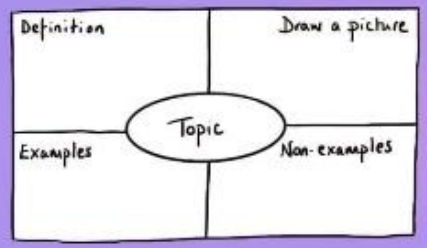
Create your own flashcards, question on one side answer on the other. Can you make links between the cards?



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.

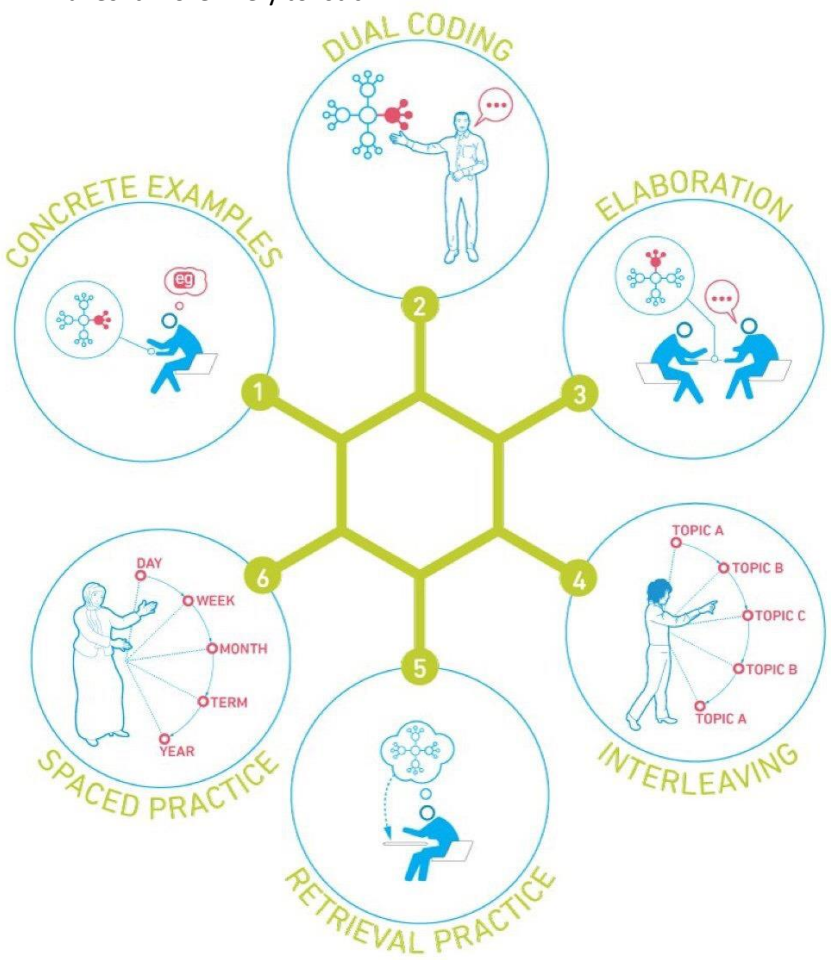
After you have retrieved as much as you can go back to your books & check what you've missed. Next time focus on that missing information

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.

INTERLEAVING

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.

Vocabulary		Definition
1	**Itinerant workers**	Workers who travel from place to place looking for employment
2	**Animalistic**	Characteristic of animals.
3	**Irascible**	Easily angered
4	**Infantile**	Childlike or babyish behaviour
5	**Futile**	Incapable of producing any useful result; pointless
6	**Morosely**	In a withdrawn, thoughtful or depressed way.
7	**Disempower**	Make someone less powerful or confident
8	**Disconcerting**	causing one to feel unsettled
9	**Apprehensive**	Anxious or fearful that something bad or unpleasant will happen.
10	**Skeptical**	Not easily convinced.
11	**Immense**	Extremely large or great
12	**Naïve**	Showing a lack of experience, wisdom or judgement (childlike)
13	**Paternal**	Of or appropriate to a father.
14	**Patriarchy**	Of or appropriate to a father.
15	**Feminist**	A person who supports the rights of women.
16	**Subjugation**	To dominate or control someone or something.
17	**Hyper-masculinity**	An exaggeration of traditionally masculine traits or behaviour.
18	**Derogatory**	Showing a critical or disrespectful attitude

Vocabulary		Definition
19	**Misogyny**	Ingrained dislike or prejudice towards women
20	**Disparaging**	Expressing the opinion that something is of little worth
21	**Ostracise**	Excluded from a group or society
22	**Ignorance**	Lack of awareness
23	**Judicious**	Showing good judgement
24	**Gravitas**	Dignity, serious, solemnity of manner
25	**Evoke**	bringing strong images, memories, or feelings to mind
26	**Disconsolate**	Very unhappy and unable to be consoled
27	**Disenfranchised**	Deprive someone of a right or privilege
30	**Domineering**	assert one's will over another in an arrogant way.
31	**Discrimination**	The unjust or prejudicial treatment of different categories of people, especially on the grounds of race, age, or sex.
32	**Nostalgic**	a sentimental longing or wistful affection for a period in the past
33	**Bucolic**	Relating to the pleasant aspects of the countryside.
34	**Marginalisation**	To isolate someone and make them feel unimportant.

Themes and context	
Steinbeck encourages us to empathise with **the plight of migrant workers** during the **Great Depression**.	Steinbeck reveals the **predatory nature of mankind**: the **powerless** are targeted by the **powerful**.
The American Dream is shown to be impossible: **reality** defeats **idealism.**	Steinbeck explores the tension between the **inevitability of fate** and the **fragility of human dreams**.
The novella explores the human need for **companionship** and the tragedy of **loneliness.**	Steinbeck explores ***prejudice*** and the ***discrimination*** of individuals because of their **race** or **gender**.

Vocabulary		Definition	Example
1	**Isolation**	Being alone or apart from others	Curley's wife felt a sense of ***isolation*** as her husband did not like talking to others.
2	**Racism**	Prejudice, discrimination, or antagonism directed against someone based on the belief that one's own race is superior.	Crooks was subjected to ***racism***. He believed that people didn't listen to him as he was "just a ****** talkin."
3	**Segregation**	The action or state of setting someone or something apart from others	Crooks feels separated from the other workers, "I ain't wanted in the bunkhouse, and you ain't wanted in my room."
4	**Migrant**	A person who moves from one place to another in order to find work or better living conditions.	George and Lennie are migrant workers. They move from place to place to find work. Usually, migrants would travel alone.
5	**Cyclical**	Occurring in cycles; recurrent The structure	'The structure of OMAM is cyclical. There is a sense of things being repeated giving a sense that things are inevitable
6	**Hierarchy**	A system in which members of an organization or society are ranked according to relative status or authority.	'Curley's father is at the top of the hierarchy as he is the boss of the ranch.
7	**Loneliness**	Sadness because one has no friends or company.	'Curley's wife feels a sense of ***loneliness*** as she is not allowed to have friends on the ranch.
8	**The American Dream**	The ideal by which equality of opportunity is available to any American, allowing the highest aspirations and goals to be achieved.	George and Lennie's dream of owning a farm and living off the 'fatta the lan' symbolizes this dream.
9	**Great Depression**	**A long and severe recession in an economy or market.**	In October 1929, millions of dollars were wiped out in the Wall Street Crash. This led to the ***Great Depression***, which crippled the country between 1930 and 1936.
10	**The Dustbowl**	An area of land where vegetation has been lost and soil reduced to dust and eroded, especially because of drought or unsuitable farming practice.	The ***dustbowl*** was a key reason why workers had to move so regularly due to land being dry and them not being able to farm there.

Terminology	Definition	Example
Animal Imagery	Animal attributes are imposed upon non-animal objects and humans.	"He walked heavily, dragging his feet a little, like a bear drags his paws."
Foreshadowing	To give an indication of what is to come.	We get a hint of the final death through the killing of the mouse and puppy.
Symbolism	The use of symbols to represent ideas or qualities.	Candy's dog represents the fate of those who are weak and the dream farm, symbolizes unattainable independence and protection from the world.
Semantic field	A group of words, which relate to a common theme or motif.	Curley's wife is presented as dangerous through a semantic field of colour imagery, "She had full, ***rouged lips*** ... Her fingernails were ***red***. Her hair hung in little rolled clusters, ***like sausages***."
Motif	A reoccurring subject, image or idea in a text.	Motif of ***loneliness*** shown through George's solitaire card game.
Metaphor	A figure of speech, which is not literal.	Curley is a terrier.

Context

John Steinbeck was born in Salinas, California in 1902. Although his family was wealthy, he was interested in the lives of the farm labourers and spent time working with them. He used his experiences as material for his writing.

On October 29 1929, millions of dollars were wiped out in the Wall Street Crash. It led to the people losing their life savings and a third of America's population became unemployed. **(**A series of drought in southern mid-western states like Kansas, Oklahoma and Texas led to failed harvests and dried-up land. Farmers were forced to move off their land: they could not repay the bank loans which had helped buy the farms and had to sell what they owned to pay their debts. Racism/sexism were common, especially in Southern states due to economic climate and history of slavery.

Technique	Definition	Example
Anaphora	Repetition of a word or phrase at the start of a clause or sentence.	'They have something to say to every minister of the gospel who has remained silent behind the safe security of stained-glass windows. They have something to say to every politician who has fed his constituents with the stale bread of hatred and the spoiled meat of racism' – Martin Luther King (Eulogy)
Hypophora	Asking a question then answering it straight afterwards	Why is America – why does this loom to be such an explosive political year? Because this is the year of politics. This is the year when all of the white politicians are going to come into the Negro community.' – Malcolm X
Anadiplosis	Repeating the last word of one clause or sentence as the first word of the next.	And so even though we face the difficulties of today and tomorrow, I still have a dream. It is a dream deeply rooted in the American dream." – Martin Luther King (I have a dream)
Antithesis	First you mention one thing, then you mention another. Both elements are often opposites	Kings die and beggars die; rich men and poor men die; old people die and young people die' – Martin Luther King
Paralellism	Giving two or more parts of the sentences a similar form and structure so as to give the passage a definite pattern	'It is not aristocracy for some of the people, but a democracy for all of the people.' – Martin Luther King (Eulogy)
Epistrophe	Repetition of a word of phrase at the end of a clause or sentence	'With this faith we will be able to work **together**, to pray **together**, to struggle **together**, to go to jail **together**, to stand up for freedom together' Martin Luther King (I have a dream)
Tricolon	Three ideas in a row	'These children—unoffending, innocent, and beautiful' – Martin Luther King (Eulogy)
Imperative	Giving a command or order to the listener or audience	'Go back to Mississippi, go back to Alabama, go back to South Carolina, go back to Georgia, go back to Louisiana' – Martin Luther King (I have a dream)

Appeal	Definition
Ethos	An appeal to the authority of credibility of the speaker. It is how well the presented convinces an audience that they are qualified to present (speak) on the particular subject
Logos	This is logical appeal or the simulation of it, and the term *logic* is derived from it. It is normally used to describe facts and figures that support the speaker's claims or thesis. Having a *logos* appeal also enhances **ethos** because information makes the speaker look knowledgeable and prepared to his or her audience
Pathos	It is an appeal to the audience's emotions, and the terms *pathetic* and *empathy* are derived from it. It can be in the form of metaphor, simile, a passionate delivery, or even a simple claim that a matter is unjust

Structure	Purpose	Civil Rights Context
Exordium	establish your connection with the audience and grab their attention	18th September 1963 – Martin Luther King delivers Eulogy for Martyred Children
Narration	set out your definitions and facts with brevity, clarity, plausibility	28th August 1963 – Martin Luther King delivers 'I Have a Dream speech
Division	summarises the agreements and disagreements with your opponents	8th March 1964 – Malcolm X delivers The Ballot or the Bullet Speech
Probation	set out your arguments with authority, analogy and evidence	**2nd July 1964: Civil Rights Act signed**
Refutation	smash your opponents' arguments	8th January 2008 - Barack Obama delivers 'Yes we Can' speech
Peroration	connect into your audience's emotions	

Vocabulary	Definition	Vocabulary	Definition
Diametrically Opposed	Complete opposites	**Conciliatory**	**Intended to placate, pacify or help stop argument**
Pacifist	Opposed to violence	**Militant**	**Aggressive**
Advocate	a supporter	**Rousing**	**Persuasive, stirring or inspirational**
An impasse	A barrier that cannot be overcome	**Eulogy**	A speech or piece of writing about someone who has just died
Inclination	Desires, wants	**Martyr**	A person who is killed because of their beliefs.
Eloquent	Persuasive, interesting and intelligent language	**Unrelenting**	Not yielding in strength, severity, or determination

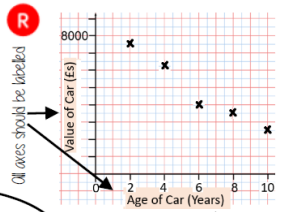
Keywords

Population: the whole group that is being studied
Sample: a selection taken from the population that will let you find out information about the larger group
Representative: a sample group that accurately represents the population
Random sample: a group completely chosen by change. No predictability to who it will include.
Bias: a built-in error that makes all values wrong by a certain amount
Primary data: data collected from an original source for a purpose.
Secondary data: data taken from an external location. Not collected directly.
Outlier: a value that stands apart from the data set

Draw and interpret a scatter graph R

Age of Car (Years)	2	4	6	8	10
Value of Car (£s)	7500	6250	4000	3500	2500

- This data may not be given in size order
- The data forms information pairs for the scatter graph
- Not all data has a relationship



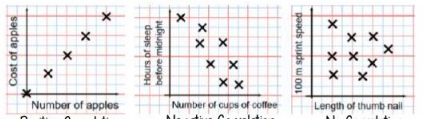
All axes should be labelled

"This scatter graph show as the age of a car increases the value decreases"

The link between the data can be explained verbally

The axis should fit all the values on and be equally spread out

Linear Correlation R

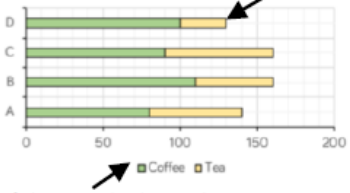


Positive Correlation	Negative Correlation	No Correlation
As one variable increases so does the other variable	As one variable increases the other variable decreases	There is no relationship between the two variables

Bar and line charts

Compare the bars green compared to yellow. The size of each bar is the frequency
Overall total easily comparable

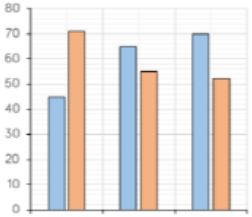
Composite bar charts



Categories clearly indicated

Dual bar charts

Bars are compared side by side
Easier to compare subgroups



Categories clearly indicated

Draw and interpret Pie Charts R

Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

There were 60 people asked in this survey (Total frequency)

$\frac{32}{60}$ "32 out of 60 people had a dog"

This fraction of the 360 degrees represents dogs

$\frac{32}{60} \times 360 = 192°$

Use a protractor to draw This is 192°

Multiple method
÷6 60 goes into 360 – 6 times.
Each frequency can be multiplied by 6 to find the degrees (proportion of 360)

Comparing Pie Charts:
You NEED the overall frequency to make any comparisons

Comparing distributions

Comparisons should include a statement of average and central tendency, as well as a statement about spread and consistency

Here are the number of runs scored last month by Lucy and James in cricket matches

Lucy: 45, 32, 37, 41, 48, 35
James: 60, 90, 41, 23, 14, 23

Lucy
Mean: 396 (1dp), **Median**: 38 **Mode**: no mode, **Range**: 16

James
Mean: 418 (1dp), **Median**: 32, **Mode**: 23, **Range**: 76

James has two extreme values that have a big impact on the range

"James is less consistent that Lucy because his scores have a greater range. Lucy performed better on average because her scores have a similar mean and a higher median"

Keywords

Outcomes: the result of an event that depends on probability
Probability: the chance that something will happen
Set: a collection of objects
Chance: the likelihood of a particular outcome
Event: the outcome of a probability – a set of possible outcomes
Biased: a built in error that makes all values wrong by a certain amount
Union: Notation '∪' meaning the set made by comparing the elements of two sets

Mutually exclusive events. In probability, events that cannot both occur in one experiment. When the mutually exclusive events cover all possible outcomes the sum of their probabilities is 1.

Construct sample space diagrams

Sample space diagrams provide a systematic way to display outcomes from events

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	2,T	3,T	4,T	5,T	6,T

This is the set notation to list the outcomes S =

S = { 1H, 2H, 3H, 4H, 5H, 6H, 1T, 2T, 3T, 4T, 5T, 6T }

In between the { } are a; the possible outcomes

Probability from sample space

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	(2,T)	3,T	(4,T)	5,T	(6,T)

What is the probability that an outcome has an even number and a tails?

This is the set notation that represents the question P

P (Even number and Tails) = $\frac{3}{12}$

There are three even numbers with tails

There are twelve possible outcomes

Numerator: the event

Denominator: the total number of outcomes

In between the ( ) is the event asked for

Probability from two-way tables

	Car	Bus	Walk	Total
Boys	15	24	14	53
Girls	6	20	21	47
Total	21	44	35	100

P (Girl walk to school) = $\frac{21}{100}$

The event

The total in the set

The total number of items

Product Rule

The number of items in event a × The number of items in event b

Averages from lists R

The Mean

A measure of average to find the central tendency… a typical value that represents the data

24, 8, 4, 11, 8,

Find the sum of the data (add the values)

55

Divide the overall total by how many pieces of data you have

55 ÷ 5

Mean = 11

The Mode (The modal value)

This is the number OR the item that occurs the most (it does not have to be numerical)

24, 8, 4, 11, 8,

This can still be easier if it the data is ordered first

Mode = 8

The Median

The value in the center (in the middle) of the data

24, 8, 4, 11, 8,

Put the data in order 4, 8, 8, 11, 24

Find the value in the middle 4, 8, 8, 11, 24

Median = 8

NOTE: If there is no single middle value find the mean of the two numbers left

For Grouped Data

The modal group – which group has the highest frequency

What is an Enzyme?

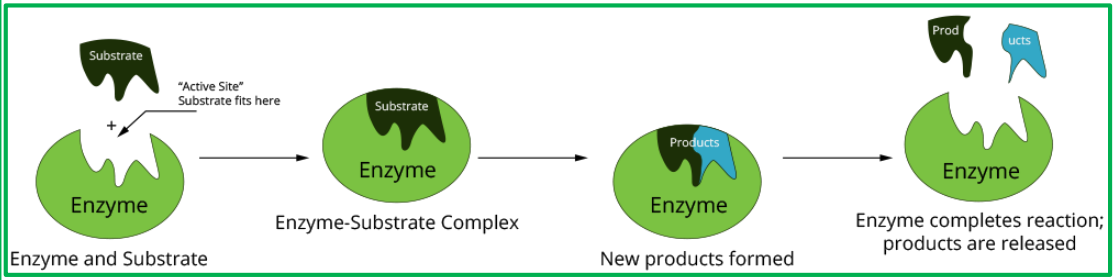
Enzymes are **biological catalysts**: they speed up reactions in living cells.

All enzymes are proteins: they are made of amino acids, and every cell contains enzymes.

Enzymes bind to **substrates** and carry out reactions: they can join substrate molecules together to make larger molecules (**synthesis**), or break the substrate down into smaller molecules (**digestion**).

To catalyse a reaction, the substrate must bind to the enzyme's **active site**. The active site will only bind to a small number of substrates: it is very specific.

To explain how specific enzymes are, scientists proposed **the Lock and Key theory**: just like a specific key is needed to fit into and open a lock, a reaction can only take place if a specific substrate fits into the active site of the enzyme.

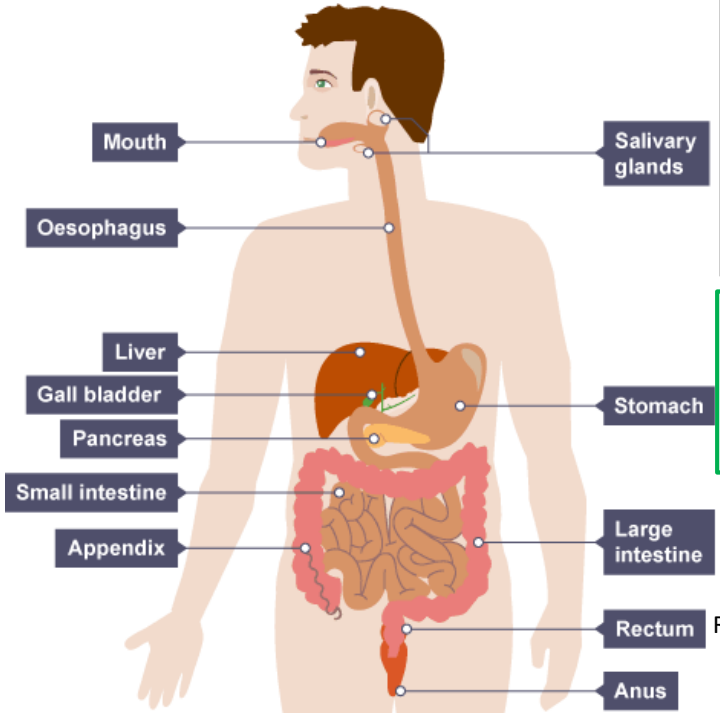


Enzymes and Digestion

Digestion is the breakdown of complex molecules into their components.

When we eat, chewing breaks the food into smaller pieces and allows enzymes to start breaking down the molecules present.

Different enzymes break down different types of nutrient, and the smaller molecules this produces will be absorbed by the small intestine.



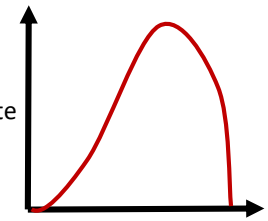
Enzyme	Enzyme made in.....	Where it breaks food down....	What it breaks down.....
Amylase	Salivary glands, pancreas, small intestine	Mouth and small intestine	Starch into sugars
Protease	Stomach, pancreas, small intestine	Stomach and small intestine	Protein into amino acids
Lipase	Pancreas and small intestine	Small intestine	Lipids into fatty acids and glycerol

Enzyme Conditions

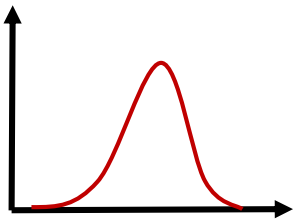
Rates of enzyme-catalysed reactions can be affected by the temperature and pH of their environment.

The conditions at which the enzyme works best are called **optimum**.

At extremes of temperature and pH, the shape of the active site is permanently changed and the enzyme can no longer function: it become **denatured**.

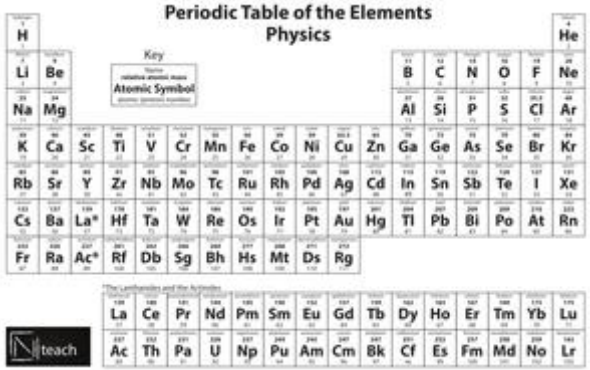


Increasing temperature provides more energy, so rate of reaction speeds up until the optimum temperature is reached. After this temperature, the active site starts to degrade.



pH is a measure of H^+ ions in solution. The right amount keeps the active site the correct shape: too many (more acidic) or too few (more alkaline) changes the shape of the active site.

1. All the Elements are listed in the period table.



2. Key words.

Elements are made up of one type of atom.

Atoms are the smallest unit of matter than can't be broken down into anything simpler.

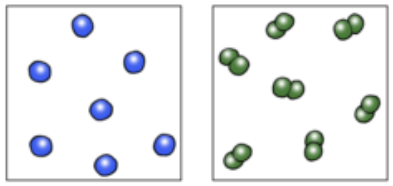
Elements can exist as a collection of separate atoms or atoms bonded as **molecules**.

A **molecule** is two or more atoms bonded together.

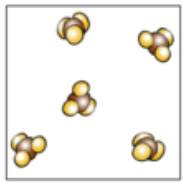
A **compound** is when two or more different elements become chemically combined. A **compound** can only be broken down by a chemical reaction.

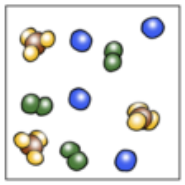
A **mixture** is when two or more different elements are in the same space but not chemically combined. A **mixture** can be broken down by a physical reaction.

3. The diagrams below show the general arrangement of particles in an element, a compound and a mixture in gas state.


a) Atoms of an element

b) Molecules of an element


c) Molecules of a compound


d) Mixture of elements and a compound

4. Signs of a Chemical reaction:

- Change in temperature takes place.
- A new substance is formed.
- A change in colour may be observed.
- A gas might be produced.
- Difficult to reverse

5. Signs of a Physical reaction:

- No new substance formed.
- Change in temperature.
- A change in shape may be observed.
- A change in size may be observed.
- Easily reversed.

7. Examples

Physical Reaction – Ice Melting

Chemical Reaction – Baking a cake

6.Key Words.

Boiling Point – The temperature at which a substance turns from a liquid into a gas

Melting point – The temperature at which a substance turns from a solid into a liquid.

8. Word Equations for chemical reactions.

8a) Iron + Sulphur -----→ Iron sulphate

8b) Iron + Copper Sulphate ----→ Iron Sulphate + Copper

8c)Magnesium Carbonate + hydrochloric acid ----→ Magnesium Chloride + Carbon Dioxide + Water

9. Symbol Equations for chemical reactions.

9a) $Fe_{(s)} + S_{2\,(g)}$ -----→ $FeS_{(s)}$

9b) $2Na_{(s)} + CuSO_{4(aq)}$ ----→ $Na_2SO_{4(aq)} + Cu_{(s)}$

9c) $MgCO_{3(s)} + HCl_{(aq)}$ ----→ $Mgcl_{2\,(aq)}$ + $CO_{2(g)}$ + $H_2O_{(l)}$

10. Balanced Symbol Equations for chemical reactions.

10a) $2Fe_{(s)} + S_{2\,(g)}$ -----→ $2FeS_{(s)}$

10b) $2Na_{(s)} + CuSO_{4(aq)}$ ----→ $Na_2SO_{4(aq)} + Cu_{(s)}$

10c) $MgCO_{3(s)} + 2HCl_{(aq)}$ ----→ $MgCl_{2(aq)}$ + $CO_{2(g)}$ + $H_2O_{(l)}$

Key Terms	Definitions
Pressure	The force exerted over a given area
Fluids	A substance that can flow
Pascals	The unit for pressure which can also be written as (N/m^2)

Equation	Meanings of terms in equation
$P = \frac{F}{a}$	*P = Pressure (Pa)* *F = Force (N)* *a = Area (m^2)*

Pressure on surfaces

Objects exert pressure on the surface that they are on. The size of the pressure depends on the force applied by the object and the surface area of the object.

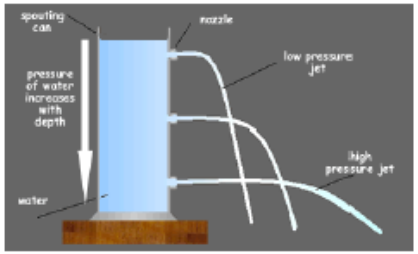
Pressure is calculated by dividing force by area.

Some objects look to increase pressure for example drawing pins have a very low surface area, so exert a high pressure.

Snow shoes have a very large surface area so exert a very low pressure, stopping people sinking into the snow.

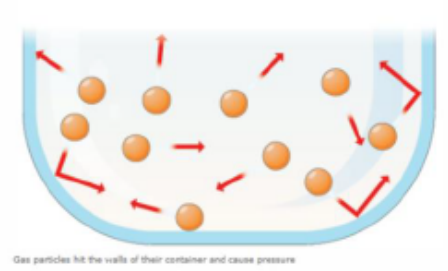
Pressure in fluids

Fluids (liquids or gases) exert pressure at 90˚ to the surface. In a gas, particles are constantly colliding with objects, this exerts a pressure. In a liquid like water, the deeper you go, the higher the pressure.



Gas Pressure

Gas pressure is **caused by gas particles colliding with the walls of the container.** A container also experiences pressure on the outside. Air particles on the outside collide with the outside wall. **An imbalance between the pressure on the inside and outside can cause the container to change its shape.**



There are **3 factors** affecting gas pressure:

1. Number of particles:

The more gas particles inside the container, the more often collisions will occur, creating a higher pressure.

2. Temperature:

If gas particles are heated up, they move with a higher speed and collide more often with the walls of the container, causing a higher pressure.

3. Volume:

If the same amount of gas particles are put into a container of a smaller volume, pressure will increase because particles will collide more frequently with the walls when they have less space.

Key Terms	Definition
DNA	Deoxyribonucleic acid – the genetic material of all organisms
Double helix	Two helical strands wound around each other
Chromosomes	DNA wound up tightly. There are 23 pairs in human cells (but a different number of pairs in other species)
Bases	The molecules which connect the two strands in DNA together. They are adenine, thymine, cytosine and guanine
Complementary	Shapes which fit together e.g. enzymes and substrates have complementary shapes
Gene	A short section of DNA which codes for characteristics
Allele	A version of a gene e.g. blue eyes

DNA Structure

- Genetic information is stored in the **nuclei** of cells, in **DNA**
- DNA has a **double helix** structure with two sugar-phosphate backbones wound around each other. Long strands of DNA are coiled up tightly into **chromosomes**
- Pairs of complementary **bases** connect the two backbones (strands)
- The bases are **adenine**, **thymine**, **cytosine** and **guanine** (A, T, C, and G)
- A has a **complementary shape** to T
- C has a **complementary shape** to G
- A short section of DNA (a **gene**) will control for a characteristic (e.g. hair colour). Variants on these characteristics (e.g. **blonde** hair vs. **black** hair) have different orders of bases (genetic "code") and are called **alleles**.

History of DNA Discovery

We didn't always know that this was the structure of DNA. Main events in the history of DNA research are below:

- **Rosalind Franklin** and **Maurice Wilkins** 1952
  - Using x-ray photography, Franklin and Wilkins produced high-resolution photographs of DNA fibres. Using these they were able to deduce that DNA had a **helical** structure and that the outside of the molecule contained **phosphates**
- **James Watson** and **Francis Crick** 1953
  - Using the x-ray data from Wilkins and Franklin, and using models, Watson and Crick managed to discover the double-helix structure of DNA. They and Wilkins were awarded the Nobel Prize in 1962.

A DNA molecule

A **double-helix** structure: two backbones wound around each other

Each backbone is made of **sugars** and **phosphates**

Between the strands are **complementary base pairs**

The pairs are **adenine** with **thymine**, **cytosine** with **guanine**

Family trees

- These are used to show how alleles are inherited within a family
- Symbols to remember are:

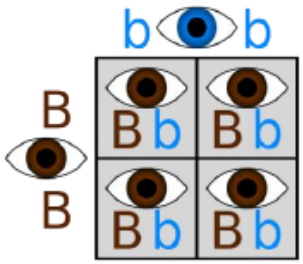
Sexual and Asexual Reproduction

Sexual reproduction	Asexual reproduction
2 parents	1 parent
Variation	No variation
Offspring have features of both parents	Offspring are clones of the 1 parent
Used in the production of offspring	Used in the production of offspring and for growth and replacement cells

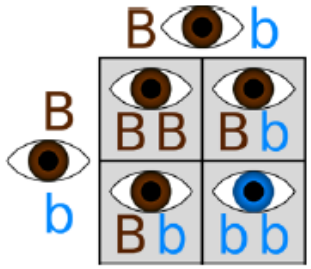
Key Terms	Definition
Dominant allele	The allele that is always expressed
Recessive allele	Only expressed if no dominant allele is present
Genotype	The combination of alleles a person has
Phenotype	The result of the combination of alleles a person has (the physical characteristic)
Homozygous	Has two of the same alleles of a gene
Heterozygous	Has two different alleles of a gene
Punnett square	Used to show the probable outcomes of crossing two sets of genes

Punnett Squares

- Dominant alleles are always shown by a capital letter
- Recessive alleles are always shown by a lower case letter
- For example the allele for brown eyes is dominant so is given a "B" whilst the allele for blue eyes is recessive so is given a "b"



Genotype of offspring:
100% Bb
Phenotype of offspring:
100% brown eyes



Genotype of offspring:
25% BB
50% Bb
25% bb
Phenotype of offspring:
75% brown eyes
25% blue eyes

Chromosomes and cell division

- Human body cells contain 23 pairs of chromosomes (46 in total)
- One of each pair comes from the mother and one from the father
- Females have two X chromosomes (XX)
- Males have one X and one Y chromosome (XY)
- When cells divide the chromosomes make copies of themselves before splitting them into new cells
- During mitosis two new cells are produced that are clones of the original cell and contain 23 pairs of chromosomes
- During meiosis four new cells are produced that are not clones of the original cell and only contain 23 chromosomes
- Mitosis is used to produce body cells
- Meiosis is used to produce gametes

Genetic diseases

Sickle cell anaemia is a recessive genetic disease. Red blood cells are the wrong shape and get stuck in capillaries causing pain & cell death. Historically in African countries being a carrier (Ss) gave a survival advantage over malaria as the sufferers (ss) died of sickle cell, and the healthy individuals (SS) died of malaria, leaving carriers to reproduce. Carriers are highly resistant to the parasite, giving them a great advantage against malaria.

Huntington's Chorea is an incurable dominant genetic disease
There are no carriers as carriers are sufferers (Hh)
Symptoms are damage to the neurones in the brain leading to gradual physical, mental and emotional changes

Haemophilia is a sex linked genetic disease where the blood doesn't clot. The faulty gene is carried on the X chromosome. This affects only boys as girls have 2 X chromosomes so with usually have the healthy copy of the allele on their other X chromosome whereas boys only have 1 X chromosome so any faulty alleles on this will be expressed

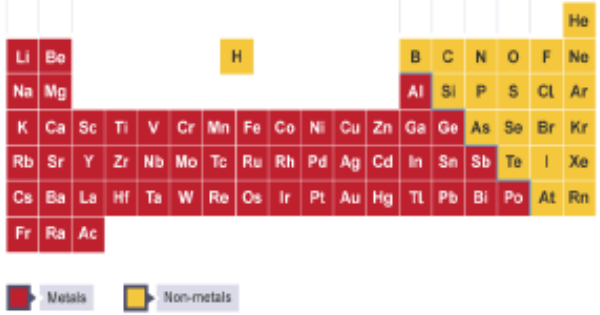
Property	Metals	Non-metals
Appearance	Shiny	Dull
State at room temp	Solid (except mercury)	Half are solids, half are gases, one is liquid (bromine)
Density	High	Low
Strength	Strong	Weak
Malleable or brittle	Malleable (can bend without breaking)	Brittle (will shatter when hammered)
Conduction (heat/electricity)	Conduct both well	Poor (graphite only non-metal conductor)
Magnetic	Only iron, cobalt and nickel	None

Metals and Non-Metals

Metals are found on the left hand side of the periodic table, the majority of elements are metals. Some elements are known as amphoteric, meaning they have the properties of metals and non-metals.

- Properties of metals are: high density, high melting point (except mercury) and good conductors of electricity
- Only three metals are magnetic (iron, cobalt and nickel)

All the different elements are arranged on the periodic table. The elements are arranged in order of increasing atomic number. On the periodic table, we can see the metal elements on the left and non metal elements on the right.



The section in the middle of the periodic table is known as the transition metals.

Embryo Screening

Preimplantation genetic PGD diagnosis is a technique in which the embryos prepared through IVF are tested for genetic defects **before implantation**

Pre-natal genetic diagnosis tests occur once the embryo is developing inside the uterus. The main two methods are amniocentesis and chorionic villus sampling (CVS).

Cloning

Dolly the sheep was born in 1996 and she was the first cloned mammal. She died age 6.5 which was a lot younger than expected. Some have speculated that a contributing factor to Dolly's death was that she could have been born with an older genetic age.

The cloning process is highly inefficient and so for ethical reasons would probably never be used to create human cloned babies. However could be used to raise the numbers of endangered species or bring back extinct ones.

Key Terms	Definition
Genome	All of a species' genetic code
Sequencing	Working out what each section of the genetic code codes for in the organism's phenotype
Cloning	Creating an identical copy of a cell or organism

Levers

Levers involve turning, or rotation. Levers allow forces applied to be **multiplied**.

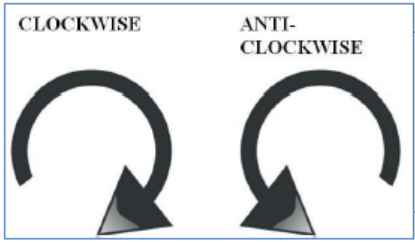
- Levers have a **pivot**: a fixed centre of rotation
- The force applied to a lever is called the **effort**
- The output force of the lever is called the **load** (because levers can be used to lift large masses – loads!).
- Both the effort and load are forces that have a **turning effect**, meaning they make the lever rotate.
- The size of the forces' turning effects is called the **moment of the force**.
- The moment of a force can be **increased** by:
  1. Increasing the size of the force
  2. Increasing the perpendicular distance from the pivot

Equilibrium in lever systems

- When a lever is at **equilibrium**, it is NOT rotating.
- Equilibrium happens when:
  the clockwise moments = the anticlockwise moments
- The forces in each direction are not necessarily equal, but the *moments* of the forces in each direction are equal at equilibrium.
- Where there are multiple forces in one direction (clockwise or anticlockwise), the TOTAL moment in one direction is found by adding up the moments of each force in a particular direction.

Key terms	Definitions
lever	A simple machine that multiplies applied forces (efforts) through rotation around a pivot.
rotation	Turning, with a fixed centre of rotation. Rotation can be clockwise or anticlockwise – see diagram.
turning effect	The rotation of a lever caused by a force (effort OR load force).
moment	Another, more formal, name for 'turning effect of a force'. *See equation*.
perpendicular	At right angles to.
equilibrium	Describes a lever that is NOT rotating because the clockwise and anticlockwise moments are equal.

Equation to calculate the moment of a force
$moment = force \times perpendicular\ distance\ from\ pivot$
Forces are usually measured in newtons (N)
Distances are usually measured in metres (m)
Moments are measured in a compound measure using the units for force and distance, usually newtonmetres, Nm.



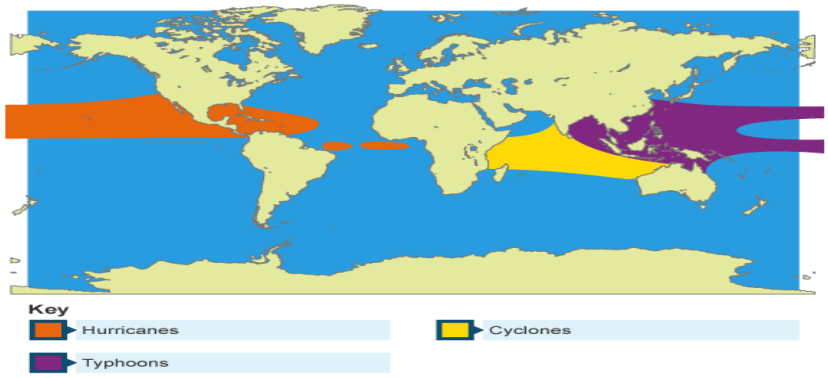
Ways to describe the direction of moments of a force

1	Coriolis force	Apparent force, due to the spinning of the Earth, which deflects movement of particles and wind.
2	Drought	A long period of low rainfall that creates a major shortage of water.
4	Evacuation	When people are moved from an area, often temporarily and for their safety.
5	Habitat	A place where plants, animals and microorganisms live.
6	Levee	Ridges or banks formed by deposits of alluvium left behind by the periodic flooding of rivers. Can also be artificially constructed banks or walls.
7	Storm surge	Sea level rises above the normal tidal range.
8	Tornado	Fast rotating winds that can cause a lot of damage.

A weather hazard is an extreme weather event that threatens people or property.
Weather hazards include:

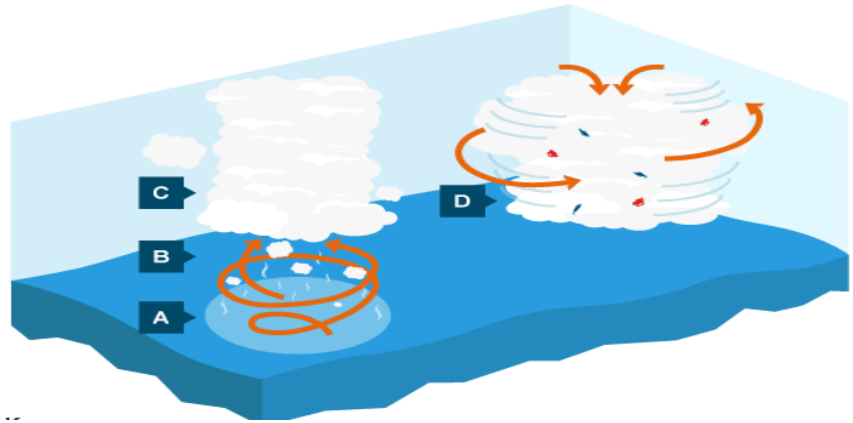
- Tropical storms
- Tornadoes
- Droughts
- Storms, floods, fog
- Tropical storms (including hurricanes).

Tropical storms are given different names in different parts of the world.



- A tropical storm is a hazard that brings heavy rainfall, strong winds and other related hazards such as mudslides and floods.
- Tropical storms usually form between approximately 5° and 30° latitude and move westward due to easterly winds. The Coriolis force sends them spinning towards the poles.
- In most areas, tropical storms are given names. The names are alphabetical and alternate between male and female. This makes storms easier to identify, especially when they are close together.
- It is hard to predict the path of a tropical storm, and therefore difficult to manage an adequate evacuation of an area if needed.

How do tropical storms form?
•Hurricanes need a lot of heat to form, which is why they usually occur over tropical seas (at least 26°C).
•The sun is close to the equator, providing energy to heat the ocean.
•The warm ocean heats the air above it causing it to rise rapidly.
•Water evaporates quickly from the hot surface of the ocean, so the rising air contains great amounts of water vapour.
•The rising air starts to spin (anti-clockwise in the northern hemisphere)
•The centre of the storm - the eye - is calm.
•As the air rises it cools, condenses and forms towering cumulonimbus clouds.
•The rapidly rising air creates an area of intense low pressure. The low pressure sucks in air, causing very strong winds.
•Once the storm moves over land it starts to lose energy and fades.

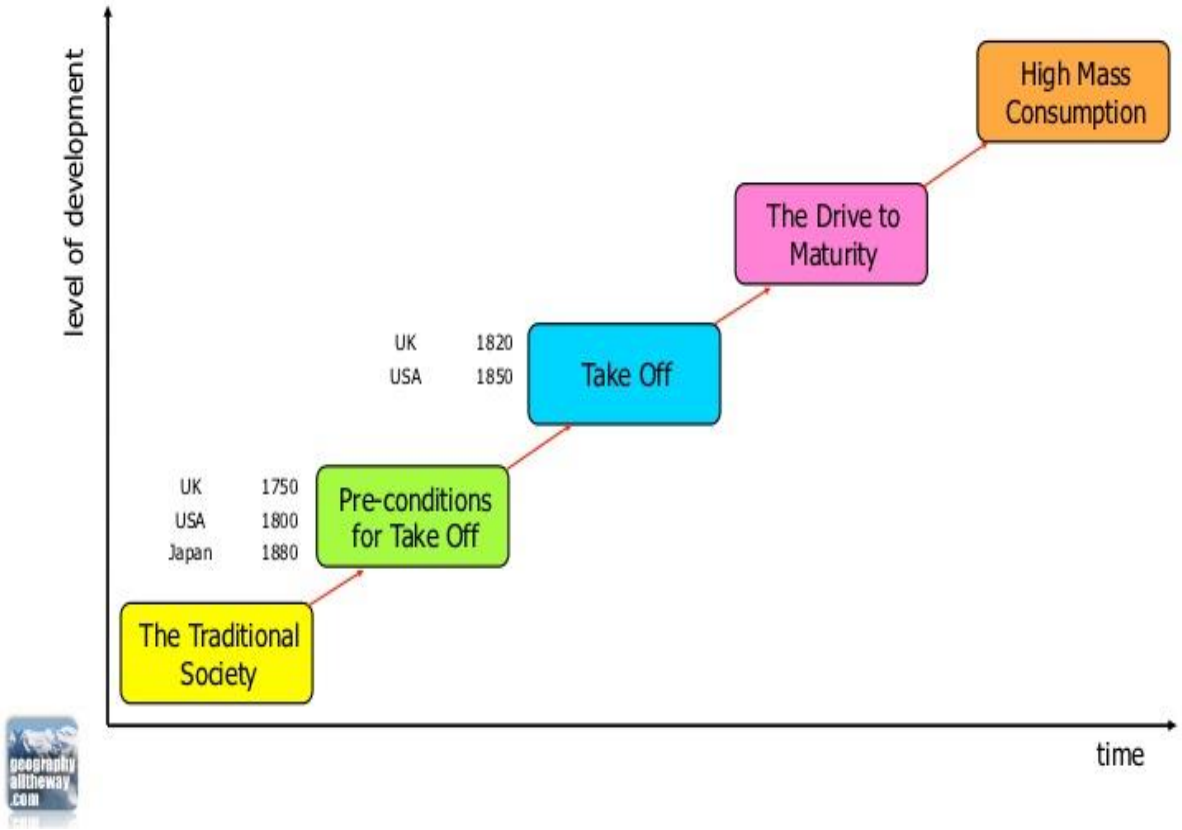


1	Development	The level of well being of a country.
2	Human Development Index (HDI)	It is measure 0-1 – using years in education, income and life expectancy as indicators. The nearest to 1 the better the quality of life.
3	Gross Domestic Product (GDP)	The total of wealth in a country. If divided by the total population it is the average income per person (per capita).
4	NGOs	Non-governmental organisations (charities)
5	Bottom-Up Approach	Development projects that originate in local communities.
6	Top-down Approach	Approaches that are organised by governments often with little consultation with local communities.
7	Periphery	On the outside. Often refers to countries with less power.
8	Appropriate Technology	Equipment that the local community is able to use relatively easily at low cost.
9	PPP	Purchasing Power Parity- takes into account the cost of living in a country not just the GNI/GDP
10	Corruption Perception Index	Measured from 0-100. A highly corrupt country is 0 with a very clean country= 100
11	Gini Coefficient	Measures the extent to which income is equally distributed across a country. It is measured 0-1 with 0 meaning that everyone in the country would have the same income and 1 would mean that one person had all the money.
12	Maternal mortality Rates	The annual number of deaths of pregnant women per 100,000 live births.

Uganda – Barriers to Development.		
13	Rural isolation	86% of Uganda is rurally isolated. Transportation and telecommunications to these regions are poor and prevent populations from becoming involved in national and global economies.
14	Dirt tracks	A large proportion of Uganda's roads are dirt tracks. These roads can be muddy and impassable. They prevent people travelling to the market place to sell crops, prevent children travelling to school and stop people travelling to the doctors and health careers.
15	Imbalanced of trade.	80% of Uganda's exports are agricultural. The main exports are coffee (22%), tea, cotton, copper, oil and fish. These items are largely low value and vulnerable to fluctuating prices. Uganda imports high value products such as oil, pharmaceutical products and manufactured products. This puts Uganda into debt.
16	Gender inequality	Literacy rates for men is 80% and for women it is 60%. Lack of education means that women are likely to get married at a very young age and have a lot of children. It also prevents them from finding paid employment.
17	Lack of medical care	Uganda has a doctor to population ratio of 8 per 100 000. Making it one of the lowest in the world. This puts people at great risk of disease and childbirth. 1.3 million people have HIV/AIDS and few have access to medicine to help them.

Rostow's model of development.

This theory of development was published by an American Economist Walt Rostow in 1960. Rostow proposed that all nations need to move each stage to improve their development. In recent years it has come under great scrutinize because it ignores inequalities, informal employment and the social and environmental costs of **"mass consumption".**



	Development indicator	Uganda
14	**Total population –** the number of people in an area.	42.6 million
15	**Gross Domestic Product (GDP) per capita** - the total value of goods produced and services provided by a country in a year, divided by the total number of people living in that country.	$604 US
16	**Life expectancy -** the average number of years a person born in a particular country might be expected to live.	59.4 years
17	**Literacy Rate -** the proportion of the total population able to read and write.	70%
18	**Infant morality rate -** the number of babies dying before their first birthday per 1000 live births.	37 per 1000
19	**Fertility rate –** number of live births	5.59 per woman
20	**HDI -** This is a measure of development used by the UN which combines indicators of life expectancy, educational attainment and income into one measure.	0.56
21	**Average age**	15.8 years
22	**Deforestation –** removal of trees.	2% is removed every year.

1	**Industrial Revolution**	a huge change in Britain between 1750-1900 where the country changed from living and working on the land, to living in cities and working in new factories.
2	**Urban**	Built-up areas in which people live in close proximity. This refers to either towns or cities
3	**Urbanisation**	The movement of people from rural towns into cities.
4	**Rural**	countryside area in which the population is spread thinly
5	**Agriculture**	Producing food. Farming.
6	**Industry**	the process of making products by using machines and factories
7	**Enclosures**	Fields that were now surrounded by fences with the introduction of sheep farming rather than crops.
8	**Common land**	Land not owned by anyone that poorer villages can use for grazing animals.
9	**Population growth**	In 1750, only about **15 per cent of the population lived in towns**. By **1900 it was 85 per cent** and London had 4.5 million inhabitants.
10	**Toll**	A fee charged for using a lock or certain roads
11	**Canal**	Man made rivers that were used to transport goods instead of the roads.
12	**Lock**	When canals cross hilly areas locks were used to allow barges to move from one water level to the next.
13	**Barge**	Boats used on canals to transport goods.
14	**Textile mill**	Factories that were used to create cotton products. This was one of the biggest exports in Britain.
15	**Luddites**	Workers who protested against the use of machines and smashed them.
16	**Apprentice**	A person who agrees to work for an employer for a period of time while learning a trade.
17	**Cholera**	a disease that causes diarrhoea and was spread by the faeces in the streets.
18	**Workhouse**	a house to look after the poor. In return they would work to produce goods
19	**Middle Class**	Social group between upper and working class.
20	**Slums**	Overcrowded dirty houses lived in by the poor.
21	**Quack Doctor**	Someone who pretends to have medical skills
22	**Miasma theory**	The idea that disease is caused by bad air, miasma.

Similarities/ Differences before and after Industrial Revolution		
	1750	**1900**
Population	7mil – 8-% lived in the countryside	37mil - 80% lived in towns or cities
Suffrage	Only 5% had the vote in elections – women could not vote	Most men could vote – but still not women
Policing	No police force and the death penalty	A professional police force. Prisons were reformed
Life expectancy	Average life expectancy was 40	Average life expectancy was 55
Jobs	Farming was the largest employer	Industry dominated by coal, iron, steel and clothes
Education	Children did not go to school – few could read or write	School compulsory for all 5-12 years old

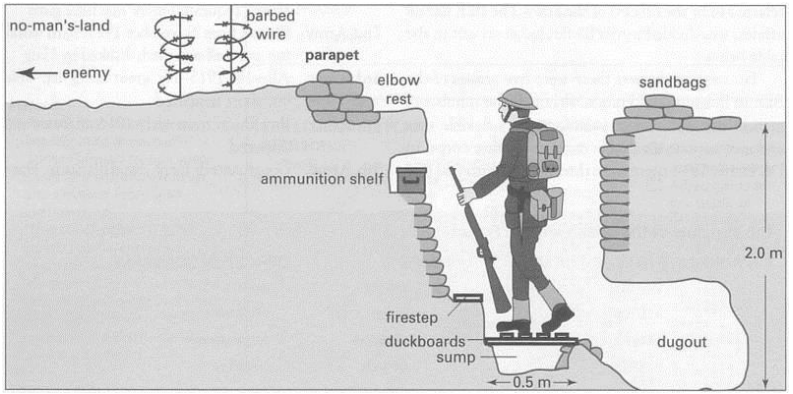
Living conditions during the Industrial Age		
23	**Pollution**	Coal was used to heat houses, cook food and heat water to produce steam to power machines in factories. The burning of coal created smoke, which led to terrible pollution in the cities.
24	**Overcrowding**	Due to large numbers of people moving to the cities, there were not enough houses for all these people to live in. Low wages and high rents caused families to live in as small a space as possible.
25	**Disease**	Typhus, typhoid, **tuberculosis** and **cholera** all existed in the cities of England. Cholera reached England for the first time in 1830, and there were further major epidemics in 1832 and 1848.
26	**Waste disposal**	Gutters were filled with litter and the streets were covered in horse manure, collected by boys to sell to farmers. Human waste was discharged directly into the sewers, which flowed straight into rivers. Parliament had to stop work because the smell from the Thames became too much.
27	**Poor quality housing**	Houses were built very close together so there was little light or fresh air inside them. They did not have running water and people found it difficult to keep clean. Many households had to share a single outside toilet that was little more than a hole in the ground.
28	**Lack of fresh water**	people could get water from a variety of places, such as streams, wells and stand pipes, but this water was often polluted by human waste.

1	**1914-1918**	Years World War One was fought
2	**Long term Cause**	Factors / causes which happen a long time before an event takes place
3	**Short term cause**	Factors / causes which happen just before an event takes place – usually a catalyst
4	**Militarism**	An emphasis on military ideals and strength. Wanting your country to have a strong army and navy.
5	**Alliances**	A group of countries who promise to support and protect each other. Rival groups have rival alliances.
6	**Imperialism**	The desire to conquer colonies, especially in Africa. This brought the powers into conflict: Germany wanted an empire. France and Britain already had empires.
7	**Nationalism**	The belief that your country is better than others. This made nations assertive and aggressive
8	**Franz Ferdinand**	A member of the Austrian Royal Family - nephew of Emperor Franz Josef and heir to the Austrian throne (next in line to be the Emperor / ruler of Austria-Hungary)
9	**Gavrilo Princip**	Member of the Black Hand who shot Franz Ferdinand
10	**Black Hand**	A Serbian terrorist organisation which wanted to hurt Austria and get it out of Bosnia and planned to assassinate Franz Ferdinand
11	**Trench**	Long, narrow ditches dug into the ground where soldiers lived all day and night.
12	**Trench foot**	Wet and muddy conditions in the trenches caused feet to swell up and go black. The flesh would go rotten and the soldiers would be in terrible pain.
13	**No Man's Land**,	In the middle of the two front line trenches , was 'no-mans land'. So-called because it did not belong to either army. Soldiers crossed No Man's Land when they wanted to attack the other side.

13. European powers concerns in 1914

Britain: Germany's growing military and naval strength. Germany was also producing more goods.
Germany: Jealousy of Britain. Fear of having hostile neighbours (France and Russia).
Russia: Rivalry with Austria-Hungary. Russia was keen to increase its influence in the Balkans.
Austria Hungary: Many regions in the Empire wanted their independence. Russia was prepared to support these regions. Huge rivalry with Russia.
Italy: To try and remain neutral in the event of a major European war.
France: Wanted revenge after losing an earlier war to Germany and losing the territory of Alsace-Loraine

17. Inside a trench



14. Alliances in 1914

For a number of years tension between the main European powers has been increasing. In 1914 there were two main power blocks / alliances:
The Triple Entente- Great Britain / France / Russia
The Triple Alliance- Germany / Italy /Austria-Hungary

15. Imperialism:

European countries Empires in 1914.

	Population of country	Population of colonies	Area in km2 of colonies
Great Britain	40.8 million	390 million	27 million
France	39.6 million	63 million	11 million
Germany	63 million	15 million	2.5 million
Austria	50 million	none	none
Russia	139 million	none	none

16. Militarism:

European Military spending and the size of their armies, 1913 - 14.

Country	Soldiers	Money spent in millions.
Britain	750,000	50,000,000
France	1,500,000	40,000,000
Germany	8,250,000	60,000,000
Austria	750,000	22,500,000
Russia	1,250,000	15,500,000
Italy	750,000	10,000,000

18. Life in the trenches:

Soldiers in the trenches did not get much sleep. When they did, it was in the afternoon during daylight and at night only for an hour at a time. They were woken up at different times, either to complete one of their daily chores or to fight. During rest time, they wrote letters and played card games. The trenches could be very muddy and smelly. There were many dead bodies buried nearby and the latrines (toilets) sometimes overflowed into the trenches. Millions of rats infested the trenches and some grew as big as cats. There was also a big problem with lice that tormented the soldiers on a daily basis.

19. Problems in the trenches:

Lice: The trenches did not have running water or showers, so soldiers found it very hard to keep clean. They soon became infected with lice that lived on all parts of their bodies.
Rats: The dirty conditions and the lack of storage attracted rats to the trenches. The rats ate the soldiers' rations and crawled all over them when they slept. They carried diseases.
Toilets: There was no running water or sewage pipes in the trenches. This meant that proper toilets could not be fitted.

History and Belief

People	
Muhammad	Believed to be the final prophet who received God's full revelation. He lived from **570-632 CE.** Muslims write PBUH after his name to show respect.
Abu Talib	Muhammad's uncle.
Khadija	A wealthy businesswoman and widow who became Muhammad's wife when she was 40 and was also the first to believe his message after the Night of Power.
The caliphs	Abu Bakr (632-634), Umar (634-44), Uthman (644-56) and Ali who was Muhammad's cousin and nephew (656-61) Ali was succeeded by Muawiya.
Fatima	Muhammad's daughter, who married Ali.
Hussein	Ali's son, who was killed in the battle of Karbala.
The prophets	The Qur'an names 25 including Adam, Musa, Ibrahim, and Isa.

Vocabulary	
Caliphate	The Islamic community ruled over by the caliph.
Shi'a	Muslims who believe that Ali and his descendants should have succeeded Muhammad as leaders of Islam.
Sunni	The majority (about 85%) of Muslims who believe that the 'Rightly Guided Caliphs' (first four caliphs) were the rightful successors of Muhammad.
Surah	A chapter of the Qur'an; there are 114 surahs in total.
Hafiz	A man who has memorised the Qur'an. A woman is called a **hafiza.**
99 names of God	99 characteristics of God used by Muslims to try and describe what God is like.
Tawhid	Belief in the oneness of God.
Shirk	The Arabic word for the sin of worshipping anything other than God.
Day of Judgement	A day when all people's faith and deeds will be judged by God and they will go to **Jannah** (paradise or heaven) or **Jahannam** (hell).

Vocabulary	
Prophet	A messenger sent from God.
Revelation	A message revealed by God to humans.
Qur'an	The holy book of Islam, which Muslims believe contains the word of God; it literally means 'recitation.'
Mosque	The place of worship for Muslims. It literally means 'place of prostration.' The Arabic word for mosque is **'masjid'.**
Mecca	A city in present-day Saudi Arabia; Muhammad was born here In **570 CE.**
Medina	One of the main cities in Arabia at the time of Muhammad (originally called **Yathrib**).
Polytheism	Belief in many gods. Muhammad was born into a polytheistic tribe called the **Quraysh.**
The Night of Power	The night in **610 CE** on which the angel Jibril appeared to Muhammad and he received his first revelation from God.
The Night Journey	Muhammad's journey between Mecca and Jerusalem on a winged horse and ascension to the heavens in 620 CE.
Hijrah	The emigration of Muhammad and his followers to Yathrib (Medina) in **622 CE.**
Constitution of Medina	The laws passed by Muhammad in Yathrib when he and his followers first settled there.
Idol	A picture of object that people worship as part of their religion.
Ka'aba	A holy site in Mecca which Muhammad dedicated to God after destroying its 360 idols.
Caliph	The Arabic word for the leader of the whole Muslim community after the death of Muhammad; it literally means 'successor'.

Key Terms:

Procreation – To have sex and produce children**.**
Cohabitation - Living together in a sexual relationship but without legalising the union through marriage.
Marriage – The legal union of a man and a woman or a same-sex couple.
Adultery – voluntary sexual intercourse between a married person and a person who is not their spouse.
Abstinence - Choosing to restrain oneself from doing something, for example, having sex or eating food (fasting).
Homosexuality – Sexual attraction to members of the same sex.
Heterosexuality -Sexual attraction to members of the opposite sex.
Promiscuity - Sexual relations with multiple partners on a casual basis.
Sanctity of Marriage - The idea that marriage has a special significance as a holy gift of God.
Faithfulness - Not having a sexual relationship with anyone other than a partner.
Sacrament – is a rite of passage or ceremony where the grace and the power of God can be received. Protestant communities refer to the sacraments of Baptism and Eucharist as ordinances.
Rites of Passage - Events marking key stages in the life of a Christian.

Source of Wisdom and Authority:

Marriage – Therefore what God has joined together, let no man separate. (**Mark 10:6-9**)
Adultery – You should not commit adultery. (**Exodus 20:14)**

God bless them and said to them, 'Be fruitful and increase in number; fill the earth and subdue it'. (**Genesis 1:28**)

Flee from sexual immorality. All other sins a person commits are outside the body, but whoever sins sexually, sins against their own body. Do you not know that your bodies are temples of the Holy Spirit.. Therefore honour God with your bodies. – (**1 Corinthians 6:18-20)**

1 Corinthians 6:18-20 – can be interpreted to mean that the body is sacred and sexual relationship should no be abuses, or that a sexual relationship is a way of honouring the body, with sex being a gift from God.

Stewardship: The Lord God took the man and put him in the Garden of Eden to work it and take care of it. **(Genesis 2:15**)

What do Christians believe about rituals of life?

4. Ethics and relationships in Christianity – Christian views of sex and sexuality
The nature and importance of sexual relationships in Christianity:

Christians believe sex is a gift from God intended for procreation, therefore they believe that sex should take place only within marriage. They believe that sex is an important way for man and woman to show commitment to each other. All forms of sexual activity are forbidden outside of marriage.

Marriage is an important rite of passage in Christianity. For Christians, marriage is traditionally accepted as being between man and a woman, and is seen as the correct context in which to have sexual relationship and children.

Sexual relationship in the Bible:

- Casual relationships are wrong – marriage is intended for sexual relationships.
- Adultery is forbidden in the Ten Commandments, which are rules from God.
- Married couples should be faithful to each other as spoken in the marriage vows.
- St Paul in the Bible condemns homosexual acts, stating that they are 'shameful'.
- Being sexually pure is advised, and many Christians take a vow of chastity before marriage.

4a. Similar and different Christian views and attitudes to marriage:

Christians beliefs about marriage

- Most Christians believe marriage is a sacrament – a ceremony in which God is involved. Vows, such as being faithful, are made between the man and woman and also to God, showing marriage is sacred and binding.
- Marriage is believed to be a gift from God – it is part of God's plan for men and women to live together as stated in the Bible.
- Marriage is seen to provide security and a stable environment for children to be raised as Christians.
- Although marriage is important, some Christians believe that God doesn't want everyone to be married. Jesus himself wasn't married and some Christians believe they have a vocation from God (for example, being a monk or nun) where marriage is not a requirement.

4b. Similar and different attitudes to sex and sexuality:

Christians hold some key beliefs about sexual relationships, including the belief that a sexual relationship should only take place between a man and a woman who are married to each other.

Alternative Christian views of sexual relationships:

Some Christians believe that, in modern society, some ideas about sexual relationships are outdated. They believe that love is important and should be celebrated in whatever form it occurs.
This may allow them to accept cohabitating couples who have a sexual relationship as well as homosexual couples who are in a permanent and stable relationship.

5. Christian attitudes to rights and responsibilities, global issues and interfaith dialogue – Christian beliefs about their responsibility to care for the elderly in their families and community:
Today's natural world faces many threats, often from humans.

Threats in the world – The world today is being damaged by pollution, global warming and humanity's excessive use of natural resources. Many animals species are threatened with extinction, while the world's fast-growing human population is becoming unsustainable.
Christian responses:
1. the Bible teaches that we should care for the world
2. Christians see the world as a sacred gift from God
3. Christianity teaches that human will be judge after death on how they treated the Earth
4. God gave human the responsibility of stewardship of the Earth – caring for it for future generations.

The purpose of the family – Christians believe the family was God's intention for humans when he created them.

6a. Rituals of life and death, including burial, according to Christianity:
All Christians believe there is an afterlife for those who believe in God. Eschatology is the word used for 'end times'. It can refer to the end of human life or the end of the world.

Funeral Services for Christians are typically held in the church they were affiliated with, and the focus of the service is usually on their religious life. During most Christian funerals, there is a sermon, prayer, reading of Scripture and singing hymns. It is also common for a eulogy or funeral resolution to be read that details the religious life of the deceased. A wake is sometimes held prior to the start of a funeral service. This is a time when close family members come together to view the body and offer support to one another in their time of loss.
A Catholic funeral is slightly different and can be with or without Mass:
Burial Customs - Christians are typically buried in consecrated ground, which is an area that has been blessed or a cemetery where other Christians are buried. In the past, Christians were encouraged not to be cremated but to imitate Jesus' burial in the tomb. However, most Christian denominations now accept cremation as an option.

6b. Similarities and differences of belief between faiths:

Resurrection – Christians believe that death is not end. They believe that the resurrection of Jesus – when he came back to life from the dead – proves life after death.

The Soul – Death is only the end of the body; the soul is immortal.
- Souls that have been saved either go to heaven or to **purgatory** (which is the Catholic idea of a 'waiting room', where souls go to be cleansed before entering heaven).
- Souls that have not achieved salvation will go to hell.

Judgement – Christian accept God is just and it is God who will decide the destination of every human's soul after death. They believe that Jesus is also involved in judgement and will offer every human the opportunity of salvation. Those who refuse will face the 'Last Judgement'.

Heaven – Heaven is mentioned in the Bible, yet it is rarely described. Some Christians believe heaven is a physical place, but most think it is a spiritual state of being united with God. The Bible teaches there is no sin, sadness or suffering in heaven.

6**. Christian beliefs about religion and science – Body and Spirit:**
Religion and science ask different kind of questions about the universe and its origins. Most Christians embrace scientific discoveries but in ways that differ according to Christian denomination. Christians believe that God took human form as Jesus Christ and that God is present today through the work of the Holy Spirit and evident in the actions of believers.

Key skills:	Rules, techniques, tactics:
1. How do you dribble? Head up, spread fingertips over ball, bounce at waist height.	**12. How many players are on the court during a game?** A game is played between 2 teams with 5 players on the court.
2. How do you perform a chest pass? W shape behind ball, chest height, follow through.	**13. What is the aim?** Players are aiming to score as many points in the time allocated by shooting through the hoop.
3. How do you perform a bounce pass? As a chest pass but ball will bounce before player.	**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.
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.	**15. What happens of 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.
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.	**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.
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.	**17. What is a foul given for?** Hitting, holding or pushing an opponent.
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.	**18. What happens if the shooter is fouled?** 1 – 3 free throws can be awarded worth 1 point each.
8. What is rebounding? Regaining possession after a shot has been missed.	**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!
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**.**	**20. Defensive strategies:** • **Zone defense** – this is where you work as a team to prevent the attacking team moving further up the court. It is a great method of defense but needs a great deal of team work and cooperation. • **Man to man defense** – this is where you mark a specific player and prevent them from getting them ball. Keeping them 'out of the game' through defense. • **Marking the ball** – this is where you follow the ball and try and intercept.
10. What is the defense? Preventing an opportunity for the opposition to score.	
11. What is an assist? Helping a teammate to score.	

22. Attacking strategies:

- **Early Offense -** The main reason for early offense is to advance the ball into the front court area and attack before the defense is able to become organized into a disruptive force. **Set Offenses -** Although most teams would prefer to play the up-tempo, fast-break transition game that personifies today's basketball, the "Set Play" is the staple of the game. Set plays use teamwork and screening actions in an effort to create open shots. Explore the most commonly used basketball offenses graphically illustrated and analyzed in great detail.

BASIC RULES

1. What is the aim of table tennis? The aim of table tennis is to score more points than your opponent by volleying the ball across the net and landing on the table.

2. Rules of the Game? If the ball touches the table surface, it is declared in
If it touches the side of the table, it is declared out
A player is not allowed to strike the ball in volley, unless the opponent's ball leaves the table and I strike the ball in volley behind the table, in which case the point would be given to me.

3. How is table tennis scored? The winner of a game is the first to 11 points. There must be a gap of at least two points between opponents at the end of the game though, so if the score is 10-10, the game goes in to extra play until one of the players has gained a lead of 2 points. The point goes to the player who successfully ends a rally, regardless of who has served.
A match can consist of the number of games you like, just make sure you agree this in advance!

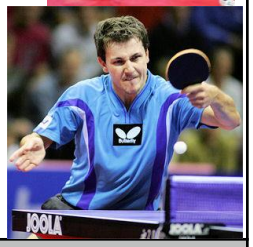
4. What are the rules of service?
The ball rests freely on the open palm of the hand.
The hand holding the ball must be above the level of the table.
The ball should be projected upwards (at least 16 cm/6inches)
The ball should be struck when it is falling and behind the table.
The ball should first bounce in one's court, then in the opponent's court.
Service can be diagonal and also in a straight line in singles
Service can be replayed when :
The ball touches the net or its supporting posts before touching the opponent's court (''let'' service)
The ball touches the net then is struck in volley by the opponent without it touching his court.
The receiver was not ready at the time of service.

5. What is the ready position? Neutral starting position, slightly bent arm, racket in front of you so you can just reach the end of the table, feet shoulder width apart and knees bent, racket in a neutral position so you can play either a backhand or forehand.

STROKE TECHNIQUES

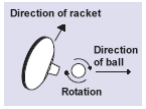
6. The forehand Push
Stand close to the table front ways on. Using a short stroke, hit the ball at the top of the bounce (at its highest point), strike the ball on the back bottom portion so that you use slight backspin

7. The Forehand Drive
Stand close to the table, sideways on, facing the line of play. Using a medium stroke, racket arm should move slightly upwards in direction that the ball is going to travel. During the stroke your upper body should rotate 45 degrees to the right then turn back to face the ball, moving from right foot to your left.

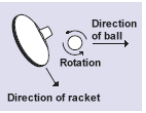


8. The backhand Drive
Using a medium stroke your racket arm should move forward and upwards. Racket angle should be slightly closed, loose wrist to help with topspin. Hit the ball at the top of the bounce, using 50% of stroke action before hitting it, and 50% of stroke action after you have hit the ball.

BASIC TACTICS AND STRATEGIES



9. Top Spin – is produced by starting your stroke below the ball and brushing your racket against the ball in an upward and forward motion. This increases the downward pressure on the ball, so after it bounces on the table it will stay low and accelerate forwards, causing it to rebound upwards off your opponents racket.



10. Back Spin – is produced by starting your stroke above the ball and brushing your racket against the ball in a downward and forward motion. This decreases the downward pressure on the ball, so after it bounces on table it rises up and not go as far forward. It will cause a rebound in a downward direction off opponents' racket.

BASIC RULES

1. What is the aim of wallball? Wallball is a simple activity played by hitting a ball against a wall with your hands. The aim of wallball is to score more points than your opponent by hitting a ball against a wall and landing inside the correct area on the floor.

2. When is a point won? A point is won by you if your opponent is unable to return the ball to the wall (e.g. they miss the ball, they hit the ball but it misses the wall, or the ball hits the floor before the wall).

3. How is wallball scored? The winner of a game is the first to 11, 15 or 21 points or played a timed game (commonly 15/20 minutes). There must be a gap of at least two points between opponents at the end of the game though, so if the score is 10-10, the game goes in to extra play until one of the players has gained a lead of 2 points. The point goes to the player who successfully ends a rally, regardless of who has served.
A match can consist of the number of games you like, just make sure you agree this in advance!

4. What is the ready position? Neutral starting position, feet shoulder width apart and knees bent, both arms in a neutral position so you can play either.

5. What is the correct equipment needed to play wallball? It is recommended to use an official wallball when playing the sport, however, any ball that can be struck safely with the hand can be used e.g. tennis ball, soft play ball, etc. Wallball gloves are optional and usually the player will decide if needed or not. Goggles are required for official tournaments.

6. Do we need a referee to play wallball? Wallball is a self-contained game and players are also expected to be referees, giving them experience of controlling a game, making decisions and taking ownership of their actions. It is recommended that the loser referees the next match.

7. How do we start the game?
The game will start by one of the players serving against the wall and the ball must return beyond the service line and inside the court.

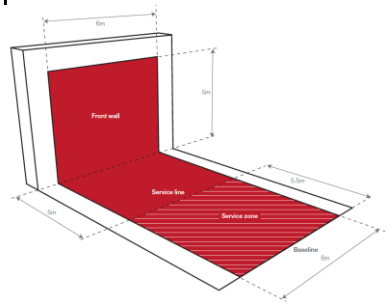
BASIC TACTICS AND STRATEGIES

8. The Target Serve
Most professional players believe that a well-controlled serve is the most important shot in the game. Services that rebound and bounce low near the short lines makes it even more difficult for the retriever, specially if he/she does not know which the direction the serve is being aimed.

9. What are the pass shots?
The pass shot is just what the name implies, a shot that is hit past the opponent. Control the passing angles is very important in order to move the opponent out of the advantageous front court position. These shots are usually classified as “cross court” and “down the line” passes.

10. Important tactics to win games:

a) Always serve first if you win the toss at the beginning of the game
b) Serve deep to push your opponent back
c) Dominate the centre of the court
d) Kill the ball, by hitting it low at the wall
e) Hit the ball down the side of the court to move the players away from the centre
f) Hit wide angles to push opponents off the court
g) Hit to the player weaker hand



1	Environmental issues relating to technology	understand the environmental impact of technology (health, energy use, resources) on society
2	Ethical issues of technology	understand the ethical impact of using technology (privacy, inclusion, professionalism) on society
3	Legal issues of technology	understand the legal impact of using technology (intellectual property, patents, licensing, open source and proprietary software, cyber-security) on society

Law controls use of data: - Data protection act (after Dec 31st 2020, UK will decide whether to follow General data protection regulation: GDPR)
Lawfulness, **fairness** and **transparency**. collected for specified,
Purpose limitation. explicit and legitimate purposes
Data minimization: not kept for longer than **required – only information needed – not about something not related to its purpose**
Accuracy: make sure systems are in place to gather correct data
Storage limitation: some places keep data for historical archiving which is ok – p60, P45 must be kept by you for 6 years
Integrity and confidentiality (security): data must be lawfully kept secure on systems and process data securely, both physical and digital data (anti-virus / policies / training to staff who use the data)
Accountability: prove that data protection complies with regulations – privacy policies in place and can be trusted.

Copyright, design and patents act protects intellectual property (song, software, invention).
Copyright covers: written, recorded books, music, film, software and games (cannot copy and distribute without owners permission.

Social engineering: giving information away by influencing people – over telephone – person ringing and pretending to be from organization, persuade person into giving company information
Phishing: criminals send email or text claiming to be from well known business – bank or retailer – email contains spoof versions of company site – tells user to update personal information – e.g. password – user filling in details on spoof site, hand over details – sent to thousands of people

Ethical: issues about what would be considered right or wrong by society
Legal issues are about what is actually right and wrong in the eyes of the law
Cultural issues – how groups of people with particular practices or languages maybe affected, e.g. ethnic group, religions, countries
Environmental issues – about how we impact the natural world

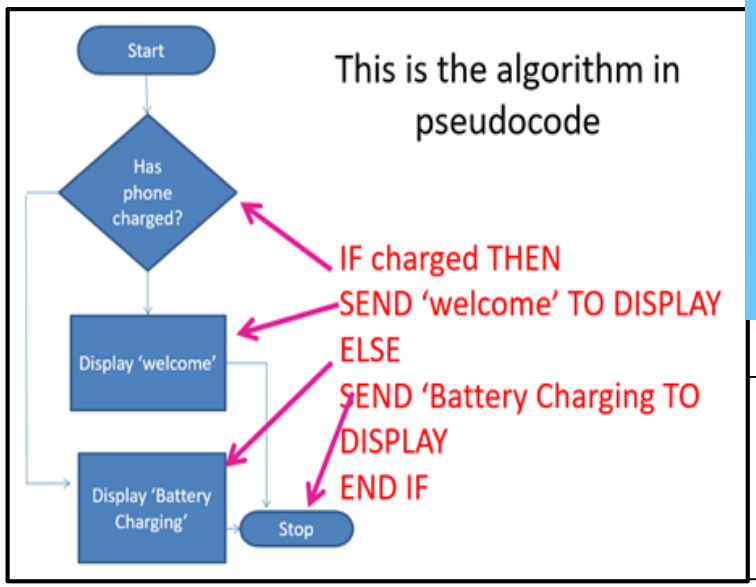
Privacy online: Social media encourage users to post personal information online.
Cloud computing: Encourage people to save personal files on their servers
Companies may sell your information: including personal details, buying habits/likes/dislikes who target adverts and spam to you – they can do this if they stay within privacy agreement
People do not always read privacy agreements – often users of sites have no choice but to agree, so they can use the site
Users expect companies to keep their information secure even when they don't

Cyber crime refers to illegal activity involving computers or networks
Hacker is a cyber criminal that gains access to system that showing the weakness in its security. Hacker will steal and destroy data or infect it using malicious software.
Computer misuse act: -introduced to stop online crime. Introduced three offences, unauthorized access to device through hacking (breaking this law leads to fine or prison sentence)
Gaining unauthorized access to commit a crime, stealing and/or destroying a network.
Modifying computer material – deleting/changing files without permission – makes it illegal to make, supply or obtain malware.
Malware (malicious software installed on people computers without their permission: software that damages devices, steals data, and causes chaos – actions of malware: deleting, modifying files so that monitoring / gaining access of personal information such as password
Types of malware: virus – attach themselves to files – e.g. emails and spread between computers shared – when file is opened, it is activated – can replicate itself
Worms: can replicate without user having to open it etc. – exploits weakness in network security.
Trojans: malware in disguise as legitimate software (THESE DO NOT REPLICATE THEMSELVES) user installs them without realizing.

1	Programming	Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem

Pseudo-code

- Written Description
- Write an Algorithm
- Complete an unfinished Algorithm
- Code in a HLL (e.g. Python)

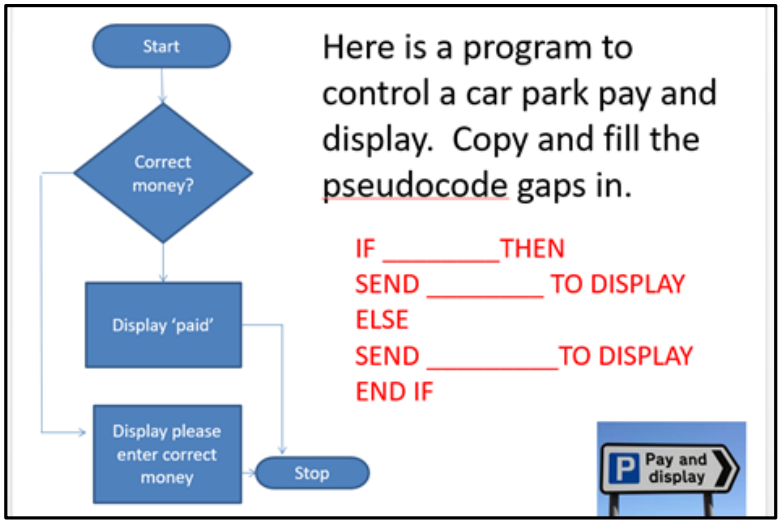


Analyze the Problem (3)

•***Example. Making tea.*** *Suppose we have a robot which carries out household tasks. We wish to program the robot to make a cup of tea. An initial attempt at an algorithm might be:*

1. **Put tea leaves in pot**
2. **Boil water**
3. **Add water to pot**
4. **Wait 5 minutes**
5. **Pour tea into cup**

Designing Solutions
Analyse a Problem
Decompose it
Abstract the Data Structure
Identify inputs, process, outputs
Design an Algorithm



Symbol	Name	Function
	Start/end	An oval represents a start or end point
	Arrows	A line is a connector that shows relationships between the representative shapes
	Input/Output	A parallelogram represents input or output
	Process	A rectangle represents a process
	Decision	A diamond indicates a decision

Algorithms
Sequence, Selection, Iteration Flowcharts
Interpreting
Creating your own
Using symbols correctly

Theatre in Education Skills

Target Audience
It is important that the creators and performers in a T.I.E. play know exactly who their audience are so that the materials they produce are appropriate and beneficial for the specific audience.

Specific Message
T.I.E. plays must have a specific message that they are teaching the audience.

Facts
T.I.E. plays are designed to educate the audience about a specific topic. It is therefore essential that the information given out is accurate. Facts can be used to help devise the play and they should also be included within the performance

Communal Voice/Chorus
Chorus is when the performer use the same movement and say the same lines. Communal voice is a variation of Chorus used in T.I.E. The performers speak with 'one voice' and usually reinforce the message of the play.

Where to get help.
At the end of watching a T.I.E. play, the audience should know what to do if they face a similar situation to the characters in the play. Where do they go for help/support?

Directly Engaging the Audience:

1. **Direct Address** – The actor or character breaks the forth wall and speaks directly to the audience.
2. **Forum Theatre** – The audience are given tasks to do which involve them within the performance.

Episodes
A series of scenes which can be related or unrelated.

Placards/PowerPoints
A placard is a sign presented onstage. Using placards might be as simple as holding up a card or banner. Multimedia or a PowerPoint slideshow can also be used for this effect. For example Scene One – The Bad News

Narration
Narration is used in T.I.E. to guide the audience through the plot. There are two types of narration as follows:

1. **In role**
   The character narrates in first person For example "My name is Little Red Riding Hood. I live in the forest".
2. **Third Person/Out of role/All Knowing**
   Commenting upon a character as an actor is a clear way of reminding the audience of theatricality. The narrator speaks in third person. For example "This is Little Red Riding Hood.. She lives in the forest".

Stereotypical characters
These are easily recognisable stock characters. They are often exaggerated and represent a type of character rather than a specific individual. For example, the mum, the teenager, the teacher.

Multi-roling
Multi-roling is when an actor plays more than one character onstage. The differences in character are marked by changing voice, movement, gesture and body language but the audience can clearly see that the same actor has taken on more than one role.

Speaking Stage Directions
This is when the actors narrate the stage directions prior to acting them out. For example the actor will say "Daniel sat down angrily" and then he will sit angrily.

Split-role
This is where more than one actor plays the same character. For instance, the actor playing the main character might rotate from scene to scene. This keeps that character representational and inhibits emotional involvement and attachment on the part of the audience.

Basic Set, Props, Lighting and sound
T.I.E. has to travel to a variety of performance venues. Therefore actors use minimal set and props. They usually carry their own sound equipment with them and rarely use stage lighting.

Song /Dance/Movement
Song, dance and movement are often used in T.I.E. plays to engage the audience and make the performances more visually/orally interesting.

Physical Theatre: Explanation

The Nature of Physical Theatre
At its simplest, you could define Physical Theatre as a form of theatre that puts emphasis on movement rather than dialogue. But remember there are a huge number of variations as the genre covers a broad range of work. But essentially Physical theatre is anything that puts the human body at the centre of the storytelling process. As a result it's often **abstract** in style, using movement in a **stylised** and **representational** way. With the expression of ideas choreographed through movement, such performers use very little or no dialogue at all.

Physical Theatre Key Words

Abstract: To perform in a way that is not like real life.
Stylised: Non-realistic performance
Representational: Symbolic
Exaggerate: To perform in a larger than life way. Over emphasize movement and speech.
Narrated Action: To perform the actions whilst a narrator orates (speaks)
Combined Art Forms:
Physical theatre includes elements of dance, music, visual arts, spoken word and mime

Rehearsal Techniques

- **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.

- **Hot-Seating**
  An actor sits in the hot-seat and is questioned **in role.** They spontaneously answer questions.
- **Role on the Wall**
  Draw an outline of your character. Annotate it to reflect the character's thoughts, feelings, fears, circumstances etc.

- **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. Actors on each side of the corridor give reasons for and against.

Body Language Key Word

This is what your character's movements and way of using their body says about them. A character who is very nervous and stressed may fidget a lot or have their shoulders hunched up tight to indicate tension.

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. e.g. **distance** may mean enemies and **contact** may mean intimacy

Levels: Suggest status e.g. a dominant character may be higher up

Use of space: The character can demand a lot of space or hide in a small corner.

Physical Theatre: Performance Skills

Physicalisation of Set:
Using the body to create objects on the stage

Physicalisation of Emotions:
Using the body to symbolise emotions

Mask:
Concealed facial expression so meaning created through movement and body language

Power of the Hand:
Symbolic fight in which person A extends hand into face of person B and controls their movement

Mirroring: Copying the movement of a partner in complete unison

Unison:
Moving together in time

Formations:
Shapes line, triangle, square etc

Proxemics:
Distance between characters suggests meaning

Character:
Physicality and actions to create person

Contact work:
Holding or making physical contact with others

Dynamics:
Speed and energy of the movement

Focus:
Where your eyes should be focused during play.

Indonesia - Gamelan	Japan
Set Work: Gamelan Sem **Instruments:** Gamelan Orchestra – Balungan; Peking; Bonang; Gong **Musical features**: All parts developed from one bass part; static harmony; rhythm focus; heterophonic texture; pentatonic. Gamelan comes from the Indonesian islands of Java and Bali in south-east Asia. The instruments that make up a gamelan are not designed to be played solo but always as an ensemble. The word gamelan itself means 'to hammer or handle' and refers to the set of bronze gongs, metallophones double-headed drums and cymbals.	**Set Work:** Sakura **Instruments:** Taiko drums; Shakuhachi; Shamisen; Koto; Shu **Musical features**: short repeated motifs; ostinato; Ha, Kyu, Ju structure; pentatonic; rhythm has precedence. The five notes of the pentatonic scale have great significance within Japanese traditional culture. They are given male and female characteristics and represent the five basic elements of earth, water, fire, wood and metal.
India - Raga	**Jamaica – Reggae**
Set Work: Raga Durga **Instruments:** Sitar; tabla; tambura **Musical features:** Improvisation; rag scales; tala rhythm; drones; static harmony. Melodic and rhythmic improvisations are the most important aspects of Indian music. Melodic improvisation is based on scales calls ragas, and rhythmic improvisation is based upon cycles of beats called talas. Talas are cycles of 4-16 or more beats which are used as a basis for rhythmic improvisation.	**Set Work:** Three Little Birds **Instruments:** Band instruments; brass & saxophones **Musical features:** Syncopation; off-beat chords; melodic bass riffs. Reggae was first heard in the UK in the 1950s when immigrants began to settle here. During the 1960s, people began importing singles from Jamaica to sell in UK shops. At this point, it had a lively, quick tempo and had an uplifting sound. The sound of reggae music is often closely associated with the country and culture it comes from– hot, sunny and chilled out!

KEYWORDS

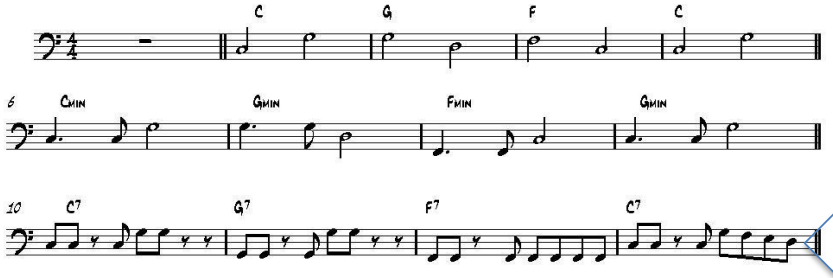
1- Static Harmony – slow moving chord changes.	**6- Motif –** a short idea (melodic or rhythmic).	**11- Chord –** 2 or more notes played simultaneously.
2- Layering – parts build up on top of each other.	**7- Improvisation** - making something up on the spot, within a given structure.	**12- Syncopation –** playing on/stressing the weak beat.
3- Heterophonic texture – simultaneous variation of a melody line.	**8- Rag –** an Indian scale.	**13- Off-beat –** playing on the unaccented notes in a bar.
4- Pentatonic – 5-note scale.	**9- Tala** – Indian rhythmic pattern.	**14- Accompaniment -** a musical part which supports or partners an instrument, voice, or group.
5- Ostinato - a repeated pattern.	**10- Drone –** a continuous low note.	

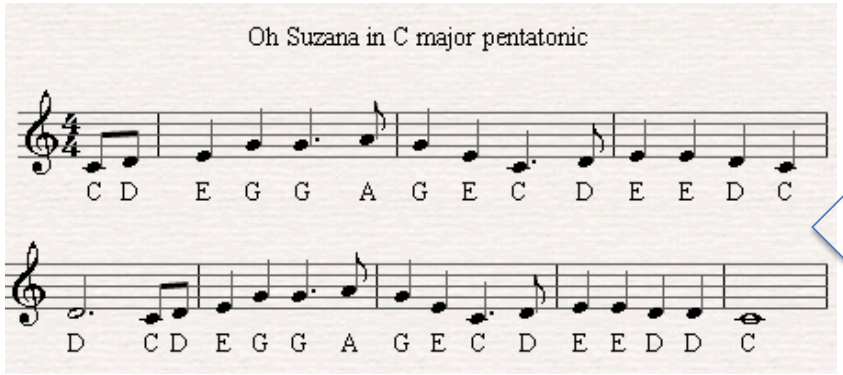
KEYWORDS

1- Chord: 2 or more notes played simultaneously.
2- Chord Progression: Movement from chord to chord.
3- Cadence: the two chords at the end of a musical phrase.
4- Riff: short repeated phrase in popular music.
5- Melody: the main tune of a song.
6- Phrase: a short musical passage; a musical sentence.
7- Bass: the lowest part of a piece, often providing harmonic support.
8- Key: group of pitches, or scale, that form the basis of a piece.
9- Modulation: Change from one key to another.
10- Sequence: the repetition of a musical phrase at a higher or lower pitch than the original.
11- Harmony: parts that play together simultaneously create harmony. Often accompanying or secondary parts to a melody.

COMPOSING BASS LINES

ROOTS AND 5THS CAN MAKE THE BASS LINE MORE INTERESTING





MAJOR CHORD PROGRESSIONS

I	ii	iii	IV	V	vi	vii°
Major	Minor	Minor	Major	Major	Minor	Diminished
A	B	C#	D	E	F#	G#
B	C#	D#	E	F#	G#	A#
C	D	E	F	G	A	B
D	E	F#	G	A	B	C#
E	F#	G#	A	B	C#	D#
F	G	A	Bb	C	D	E
G	A	B	C	D	E	F#

4 Rules for Chord Progressions

1. Start and end on chord I
2. The primary/major chords are strong (I, IV & V)
3. The minor chords add some interest and variety (but avoid using iii
4. NEVER use chord vii (diminished)

3 hints for Basslines

1. Bass them around the root (bottom) note of the chord
2. Use other notes of the chords for interest
3. Add some rhythm for character

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

A. Key Terms

Keyword	Description
1. Tone	This refers to the lightness or darkness of something. This could be a shade or how dark or light a colour appears. Tones are created by the way light falls on a 3D object. The parts of the object on which the light is strongest are called **highlights** and the darker areas are called **shadows**.
2. Texture	This is to do with the **surface quality** of something, the way something feels or looks like it feels. There are two types of texture: **Actual texture** really exists, so you can feel it or touch it; **Visual texture** is created using marks to represent actual texture.
3. 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
4. Media	The materials and methods used to produce a piece of art or design.
5. Composition	how objects or figures are arranged in the frame of an image
6. Annotation	Key information alongside your work. A record of your experiences, thoughts and emotions connected to an image.
7. Refinement	Developing your idea or image

B. Command Words

Keyword	Description
8. Study	To examine, consider, investigate, research and show an in-depth understanding of what you have found or experienced.
9. Explore	To investigate, examine and look into with an open mind about what might be found and developed.
10. Create	To conceive, make, craft or design something new or invent something.
11. Analyse	To examine in depth, study thoroughly, question, investigate and consider your own opinion or visual investigation of something

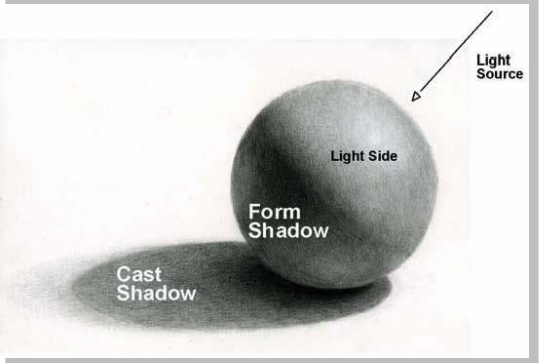
C. Value Scale

Denman Ross nine step value scale

Value	Sample	Value Name
1		white
2		high light
3		light
4		low light
5		**midvalue**
6		high dark
7		dark
8		low dark
9		black

12. This is called a **tonal scale.** You will need to identify different light and dark values.

D. Tonal Shading



13. **Cast Shadow:** The shadow created by an object
14. **Form Shadow:** The shadow on an object
15. **Light Side**: The area of an object with the most light
16. **Light Source**: The Direction of the light in an image.

Key words: Nutrients and Eat well Guide

1. **maintenance** – to keep the body in good health working.
2. **Nutrients** – Chemicals in food that give nourishment.
3. **Energy** – the strength needed for physical effort. Energy is provided by macronutrients in the diet.
4. **Energy balance** – Eating the right amount of food to maintain body weight.
5. **Basal metabolic rate (BMR)** - the rate at which a person uses energy when resting
6. **Kilocalories (kcal)** – a unit of measurement for energy in food.
7. **Immune system** – the body's defence against infectious diseases
8. **Clotting** – the process that blood undergoes to prevent bleeding
9. **Antioxidant** – a molecule that is able to stop the oxidation process in other molecule
10. **Haemoglobin** – a protein responsible for transporting oxygen in the blood
11. **Saturated fats** – Type of fat mostly from animal sources
12. **Absorb** – to take in or soak up
13. **Diabetes**– a condition that causes a person's blood sugar level to become too high.
14. **Obesity**– diet related disease where the body contains too much stored fat.
15. **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.

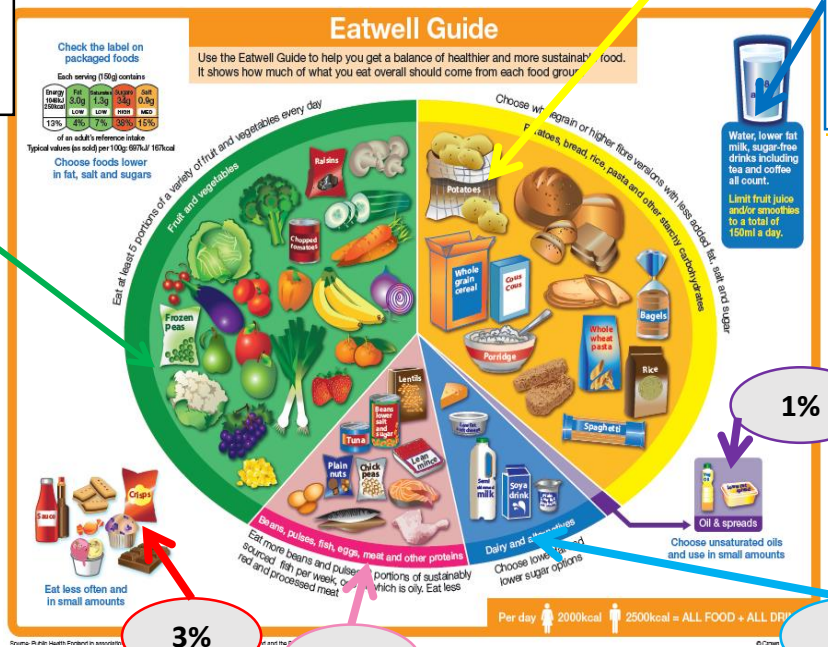
1. Starchy Foods

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%

Fruits & Vegetables

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

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

1%

3%

12%

8%

Food high in sugar are 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

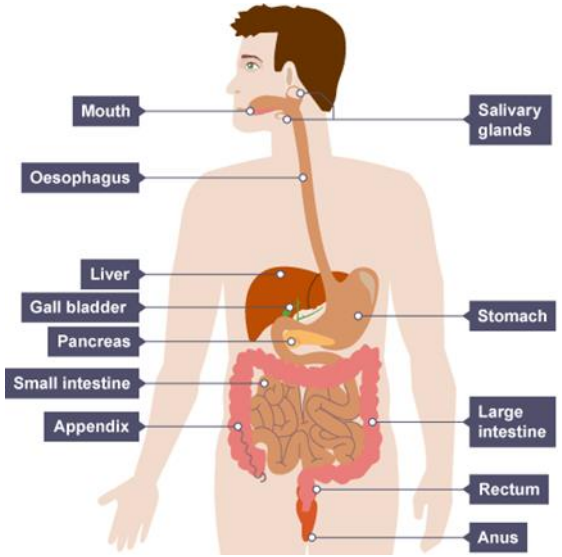
Nutrient	Function in the body
1. Macronutrient: Carbohydrates (Starch, sugar, fibre)	Needed by the body because they are the main source of energy in the body for movement. Needed by the body for digestion. (fibre)
2. Macronutrient: Protein	Needed by the body for growth Repair the body when it is injured 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

	Keyword	Definition
1	Gluten	A protein found in wheat flours, that makes the dough elastic
2	Coeliac disease	An intolerance to Gluten which causes the inflammation of the intestine walls and damage them making nutrient absorption more difficult for the body
3	Amylase	Releases when starch is heated and enables sauces to thicken
4	Viscosity	The thickness of a liquid
5	Gelatinisation	When starch particles swell and burst, thickening a liquid
6	Durum wheat	A yellowy, high-protein wheat that is grown especially for making pasta
7	Milling	The process which separates the different parts of the grain
8	Semolina	A coarse-ground flour which comes from wheat
9	Whole grain	The whole seed in its natural state, none of the layers have been removed
10	Gluten -free	Products which does not have any wheat, rye, barley and sometimes oats
11	Al dente	'Firm to the bite' describes the texture of pasta
12	Extraction Rate	The keyword for how much of the original wheat grain is in the flour and used in products
13	Fermentation	A chemical breakdown of sugar to acid, gas or alcohol by bacteria, yeasts or other microorganisms
14	Proving	When bread is left to rest in a warm, damp environment to enable fermentation
15	Germ	Part of the grain which provides fat and B vitamins, it is also used to grow new plants
16	Gluten in and Gliadin	The two names of the proteins which are kneaded and stretched in the production of bread.
17	Harvesting	The process of gathering or reaping crops
18	Knocks back	To re-knead the dough which knocks out some of the carbon dioxide allowing the yeast to produce more carbon dioxide
19	Starch	A polysaccharide and a complex carbohydrate
20	Strong flour	A type of flour with the highest gluten content
22	Unleavened	Refers to bread, cake and biscuits made without raising agents
23	White flour	Contains just the endosperm, the bran and the germ have been removed
24	Yeast	A microorganism belonging to the fungi family, made up of single oval cells that reproduce by budding, this means they multiply and the one cell divides into two
25	Weevils	Tiny black bugs that can live and breed in flour

Key questions:

- Name 2 properties of gluten that give bread its unique texture
- What needs to be added to glutenin and gliadin to make gluten?
- Describe the energy balance in one sentence.
- Name three enzymes that are involved in human digestion;
- Draw a flowchart to show how food passes through the digestive system, ensuring that each organ and stage is properly labelled.
- Where is pasta thought to have its origins?
- When making a white sauce, the starch grains in the flour swell and thicken the sauce. Name the process and describe how it happens with the aid of diagrams.
- Can you explain why sauces are used in the production of recipes/meals?

The digestion process



The gastrointestinal (GI) tract comprises:

- Mouth and salivary glands;
- oesophagus;
- stomach;
- small intestine – duodenum, jejunum and ileum;
- liver and gall bladder;
- pancreas;
- Large intestine (or colon)
- rectum
- anus.

MATERIALS AND SOLDERING PROCESS

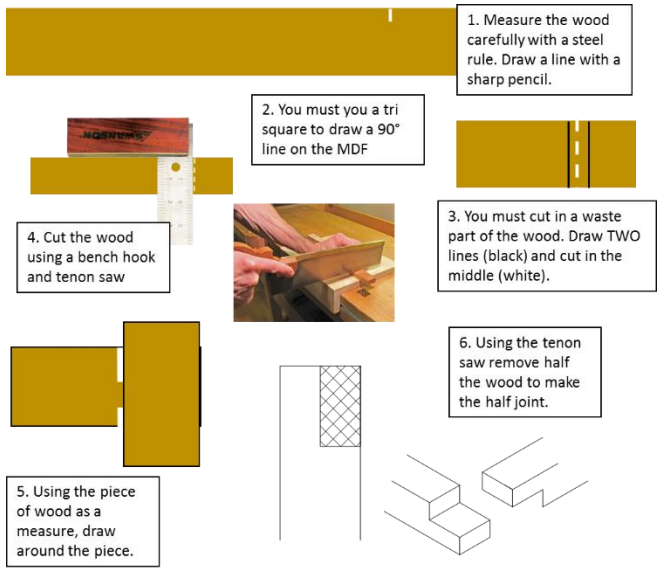
M1 Manufactured—make (something) on a large scale using machinery.

M2 Switch—a device for making and breaking the connection in an electric circuit.

M3 Battery—a container in which chemical energy is converted into electricity and used as a source of power.

M4 Motor— a machine, especially one powered by electricity that supplies motive power for a device with moving parts.

S1 Strip the wires—Use the wire strippers to remove the insulating plastic



S2 Twist the wires— the cable is stranded cable—twist the wires together

S3 Solder the wires—use a bead of solder to make a permanent join.

S4 Apply tape to secure—wrap the join in electrical tape to seal.

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.

CAR PARTS

Axel - a rod or spindle (either fixed or rotating) passing through the centre of a wheel or group of wheels.

Chassis - the base frame of a car, carriage, or other wheeled vehicle.

Motor - a machine that supplies motive power for a vehicle or for another device with moving parts.

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.

(T) 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

1	Salut! Quoi de neuf? J'espère que ca ne va pas trop mal.	Hi! *What's up?* I hope that **is it not going too bad.**
2	***Bienque je sois*** petite, je suis quelqu'un d'hyper sportif car	***Although I am*** short, I am (someone) hyper sporty because
3	pendant mon temps libre, je joue souvent au basket avec	during my free time, I play (often) basketball with
4	mes copains et quand il fait beau, je fais de la natation. **Oh la la** j'adore ça!.	my friends and when the weather is nice I do swimming. **Oh dear**, I love it!
5	Néanmoins, mon amie Kinthusha est aussi paresseuse qu'une	Nevertheless, my friend Kinthusha is as lazy as a
6	larve, du coup, elle passe tout son temps dans sa chambre,	larvae, therefore, she spends all her time in her bedroom,
7	parfois, elle tchatte sur ***Snapchat*** ou elle regarde des video en ligne,	sometimes, she chats on ***Snapchat*** or she watches videos (online),
8	mais elle lit rarement, et surtout pas de romans!	but she reads rarely, and certainly not any novel!
9	La semaine dernière, je suis allée au cinéma en bus avec mon père,	Last week, I went to the cinema by bus with my father
10	on a regardé un film d'action, mais j'ai trouvé ça totalement nul,	we watched an action film, but I found it totally rubbish
11	parce que c'était trop violent et le héro était trop moche.	because it was too violent and the hero was too ugly.
12	Malheureusement , je pense que mon père a aimé mais	Unfortunately, I think that my dad loved it but
13	**tout le monde sait** qu'il a très mauvais goût. Cependant,	everybody knows that he has (very) bad taste. However,
14	jeudi prochain, **si Dieu veut**, je vais prendre le train avec ma mère et	next Thursday, if God wants, I am going to take the train with my mother and
15	on va aller au bord de la mer pendant quatre jours pour faire du motocross	we are going to go to the seaside for four days in order to do (some) motocross
16	car je vais participer à une compétition régionale dans un mois.	because I am going to participate in a regional competition in a month.
17	A mon avis, le séjour va être excitant car je vais m'entrainer	In my opinion, the stay is going to be exciting because I am going to practice
18	très sérieusement avec mon entraineur préféré: Maman.	very seriously with my favourite coach: Mum
19	Si j'avais plus de temps, je pense que je deviendrais	If I had more time, I think that I would become
20	célèbre sur YouTube en faisant des video éducatives pour	famous on YouTube (whilst) doing educative video in order to
21	montrer mes nouvelles coupes de cheveux à mes amies.	show my new hairstyles to my friends.
24	Personnellement, je parle trois langues, le français, l'anglais et le bambara	Personally, I speak three languages, French, English and Bambara
25	parce que ma famille vient du Mali. Notre culture et notre langue	because my family comes from Mali. Our culture and our language
26	sont très importantes alors j'apprends le bambara à la maison avec ma famille.	are very important so I learn Bambara at (the house) with my family.
27	**Bien que je sois** parfois paresseuse, pour moi, c'est essentiel	**Although I am** sometimes lazy , for me, it is essential
28	d'apprendre une langue étrangère. Je sais que	to learn a foreign languages. I know that
29	si je révise mes phrases clés, si je me teste tous les jours,	if I revise my key sentences, if I test myself everyday,
30	si j'écoute attentivement et si je ne compte que sur moi-même	if I listen carefully and if I only count on myself
31	alors je récolterais les fruits de mon travail. Evidemment!	Then I would be able to retrieve the fruit of my work! Obviously!
32	**Bien que mon père soit** au chômage en ce moment, ma mère	**Although my dad is** unemployed at this moment, my mother
33	est chef d'entreprise. Sa compagnie est spécialisé dans les	Is a General Manager, her company is specialised in (the)
34	effets spéciaux, c'est trop cool car elle n'arrête pas de	special effects, it is so cool because she does not stop
35	voyager et **elle touche pas mal d'argent**!	to travel and **she makes good money (she doesn't receive bad money!)**

36	En ce qui me concerne, je voudrais travailler pour les Nations Unis	As far as I know, I would like to work for the United Nations
37	comme interprète. Ce serait mon rève, mon but ultime,	as an interpretor. It would be my dream, my ultimate goal,
38	mais il faudrait que je parle au moins cinq langues.	but it would be necessary that I speak at least five languages.
39	**Ça ne va pas être de la tarte!**	**It is not going to be like pie! (it is not going to be easy!)**
40	En plus, **le monde ne tourne plus très rond**,	On top of it, **the World does not go round anymore**, **it is a pity!**
41	Il y a trop de pollution, de marées noires et	There are too much and black tides and
42	le réchauffement climatique provoque des sécheresses	global warming provokes drought
43	des innondations et des incendies tous les ans!	floods and fires every year!
44	Il faut absolument faire quelque chose, **les gars!**	Its is absolutely necessary to do something, **guys!**
45	On ne devrait plus prendre la voiture pour des petits parcours,	(We) should no longer take the car for small journeys
46	et on devrait éviter tout type de gaspillage, pour commencer.	and we should avoid all type of spillage, to start with.
47	Moi, j'évite d'acheter des produits avec du plastique, mais	Me, I avoid (to buy) products with plastic, but
48	je vais bientôt commencer le jardinage et le compostage,	I am soon going to start gardening and composting.
49	car ça va être sain et gratifiant. Ça va être **Le pied!**	because it is going to be healthy and gratifying. It going to be **Great!** (the foot!)
50	Le mois dernier, j'ai participé au nettoyage du parc de	Last month, I participated in the cleaning of the park of
51	ma ville. Il n'y avait pas beaucoup de personne donc,	my town. There was not a lot of people so,
52	c'était fatigant mais **bon enfant**. Le parc était super propre a la fin.	it was tiring but **good-natured**. The park was super clean at the end.
53	Généralement, je passe mes vacances chez ma grand –mère	Usually, I spend my holidays at my grand-mother's
54	à 'Catford Plage', dans le sud-est de Londres. C'est ennuyeux!	in 'Catford Beach', in the South-East of London. It is boring!
55	Avec elle, je dois lire un livre par semaine et je dois nettoyer	With her, I must read one book per week and I must clean
56	sa maison tous les jours, même les fenêtres et les toilettes.	her house every day, even the windows and the toilets.
57	L'année dernière, je suis allée à Brighton avec mon frère,	Last year, I went to Brighton with my brother,
58	On a rencontré sa petite-amie, puis on a visité la ville.	we met his girlfriend, the we visited the town.
59	C'était affreux de se ballader avec deux amoureux	It was horrible to walk around with two lovers!
60	Si j'avais de l'argent, j'irais au Sri Lanka avec ma copine Kin	If I had money, I would go to Sri Lanka with my Friend Kin
61	car je voudrais voir des éléphants, des tigres et des serpents.	because I would like to see elephant, tigers and snakes
62	Mais l'anné prochaine, pour un fois, je vais aller aux Etats-Unis	But, next year, I am going to go to the United States
63	avec maman sur le tournage d'un film de science fiction.	With mum on the stage of an science fiction film.
64	Je pense que ça va etre incroyable parce que mon idole	I think that it is going to be incredible because my idol
65	va jouer le rôle principal… elle s'appelle Yemi Alade	Is going to (play) the main role… her name is Yemi Alade.
66	Ça va être **son tout premier** film.	It is going to be her (very) first film.

Semana 1

¿Qué te gusta comer y beber?	What do you like to eat and drink?		
¿Qué no te gusta comer/ beber?	What don't you like to eat/drink?	los caramelos	sweets
Me gusta(n) mucho...	I really like...	la fruta	fruit
Me encanta(n)...	I love...	las hamburguesas	hamburgers
No me gusta(n) nada...	I don't like... at all.	los huevos	eggs
Odio...	I hate...	la leche	milk
Prefiero...	I prefer...	el marisco	seafood/shellfish
el agua	water	el pescado	fish
el arroz	rice	el queso	cheese
la carne	meat	las verduras	vegetables

Semana 2

¿Qué desayunas?	What do you have for breakfast?		
Desayuno...	For breakfast I have...	Como...	I eat ... /For lunch I have...
cereales	cereal	un bocadillo	a sandwich
churros	churros (sweet fritters)	¿Qué cenas?	What do you have for dinner?
tostadas	toast	Ceno...	For dinner I have...
yogur	yogurt	patatas fritas	chips
café	coffee	pollo con ensalada	chicken with salad
Cola Cao™	Cola Cao (chocolate drink)	¿A qué hora desayunas/ comes/cenas?	At what time do you have breakfast/lunch/dinner?
té	tea	Desayuno a las siete.	I have breakfast at 7:00.
zumo de naranja	orange juice	Como a las dos.	I have lunch at 2:00.
No desayuno nada.	I don't have anything for breakfast.	Ceno a las nueve.	I have dinner at 9:00.
¿Qué comes?	What do you have for lunch?		

Semana 3

En el restaurante	At the restaurant		
buenos días	good day, good morning	nada más	nothing else
¿Qué va a tomar (usted)?	What are you (singular) going to have?	La cuenta, por favor.	The bill, please.
¿Qué van a tomar (ustedes)?	What are you (plural) going to have?	la ensalada mixta	mixed salad
¿Y de segundo?	And for main course?	los huevos fritos	fried eggs
¿Para beber?	To drink?	la sopa	soup
¿Algo más?	Anything else?	el pan	bread
Voy a tomar...	I'll have...	las chuletas de cerdo	pork chops
de primer plato	as a starter	el filete	steak
de segundo plato	for main course	el pollo con pimientos	chicken with peppers
de postre	for dessert	la tortilla española	Spanish omelette
Tengo hambre.	I am hungry.	el helado de chocolate/ fresa/vainilla	chocolate/strawberry/ vanilla ice cream
Tengo sed.	I am thirsty.	la tarta de queso	cheesecake
		la cola	coke

Semana 4

Una fiesta mexicana	A Mexican party		
¿Qué vas a traer/ comprar?	What are you going to bring/buy?	un pimiento verde/rojo	a green/red pepper
Voy a traer...	I'm going to bring...	un aguacate	an avocado
quesadillas	quesadillas (toasted cheese tortillas)	un kilo de tomates	a kilo of tomatoes
limonada	lemonade	medio kilo de queso	half a kilo of cheese
Voy a comprar...	I am going to buy...	200 gramos de pollo	200 grammes of chicken
una lechuga	a lettuce	un paquete de tortillas	a packet of tortilla wraps
		una botella de limonada	a bottle of lemonade

Semana 5

Una fiesta mexicana	A Mexican party		
¿Qué vas a traer/ comprar?	What are you going to bring/buy?	un pimiento verde/rojo	a green/red pepper
Voy a traer...	I'm going to bring...	un aguacate	an avocado
quesadillas	quesadillas (toasted cheese tortillas)	un kilo de tomates	a kilo of tomatoes
limonada	lemonade	medio kilo de queso	half a kilo of cheese
Voy a comprar...	I am going to buy...	200 gramos de pollo	200 grammes of chicken
una lechuga	a lettuce	un paquete de tortillas	a packet of tortilla wraps
		una botella de limonada	a bottle of lemonade

Semana 6

¿Y tú? ¿Qué opinas?	And you? What do you think?		
Pues...	Well...	Eh...	Er...
Depende...	It depends...	A ver...	Let's see...
No sé...	I don't know...	Bueno/Vale...	OK...

Lo siento, pero no entiendo	I'm sorry, but I don't understand		
¿Qué significa '...'?	What does '...' mean?	¿Puedes hablar más despacio, por favor?	Can you speak more slowly, please?
¿Puedes repetir?	Can you repeat that?		

Palabras muy frecuentes	High-frequency words		
a las...	at... o' clock	lugar	place
bastante	quite	para	for
día	day	por ejemplo	for example
favorito/a	favourite	pasado/a	last
hora	time	que viene	next

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

Assessments: Speaking and Listening

Semana 1

¿Te gustaría ir al cine?	Would you like to go to the cinema?		
¿Te gustaría ir...?	Would you like to go...?	al parque	to the park
a la bolera	to the bowling alley	a la pista de hielo	to the ice rink
a la cafetería	to the café	al polideportivo	to the sports centre
al centro comercial	to the shopping centre	¿Te gustaría venir a mi casa?	Would you like to come to my house?
al museo	to the museum		

Semana 2

Reacciones	Reactions		
De acuerdo.	All right.	¡Ni hablar!	No way!
Vale.	OK.	¡Ni en sueños!	Not a chance!/Not in your wildest dreams!
Muy bien.	Very good.	No tengo ganas.	I don't feel like (it).
¡Genial!	Great!	¡Qué aburrido!	How boring!
Sí, me gustaría mucho.	Yes, I'd like that very much.		

¿Dónde quedamos?	Where do we meet up?		
al lado de la bolera	next to the bowling alley	enfrente del polideportivo	opposite the sports centre
delante de la cafetería	in front of the café	en tu casa	at your house
detrás del centro comercial	behind the shopping centre		

Semana 3

¿A qué hora?	At what time?		
a las...	at...	seis y media	half past six
seis	six o'clock	siete menos cuarto	quarter to seven
seis y cuarto	quarter past six	siete menos diez	ten to seven

Lo siento, no puedo	I'm sorry, I can't		
¿Quieres salir?	Do you want to go out?	pasear al perro	walk the dog
Tengo que...	I have to...	salir con mis padres	go out with my parents
cuidar a mi hermano	look after my brother	No quiero.	I don't want to.
hacer los deberes	do my homework	No tengo dinero.	I don't have any money.
lavarme el pelo	wash my hair	No puede salir.	He/She can't go out.
ordenar mi dormitorio	tidy my room		

Semana 4

¿Cómo te preparas?	How do you get ready?		
¿Cómo te preparas cuando sales de fiesta?	How do you get ready when you go to a party?	Me visto.	I get dressed.
Me baño.	I have a bath.	Me maquillo.	I put on make-up.
Me ducho.	I have a shower.	Me peino.	I comb my hair.
Me lavo la cara.	I wash my face.	Me aliso el pelo.	I straighten my hair.
Me lavo los dientes.	I brush my teeth.	Me pongo gomina.	I put gel on my hair.

Semana 5

¿Qué vas a llevar?	What are you going to wear?		
¿Qué llevas normalmente los fines de semana?	What do you normally wear at weekends?	una gorra	a cap
Normalmente los fines de semana llevo...	At weekends I normally wear...	unos pantalones	some trousers
una camisa	a shirt	unos vaqueros	some jeans
una camiseta	a T-shirt	unas botas	some boots
un jersey	a jumper	unos zapatos	some shoes
una sudadera	a sweatshirt	unas zapatillas de deporte	some trainers
una falda	a skirt	¿Vas a salir esta noche?	Are you going to go out tonight?
un vestido	a dress	Voy a ir al/a la...	I am going to go to the...
		Voy a llevar...	I'm going to wear...

Semana 6

Los colores	Colours		
amarillo/a	yellow	naranja	orange
azul	blue	negro/a	black
blanco/a	white	rojo/a	red
gris	grey	rosa	pink
marrón	brown	verde	green
morado/a	purple	de muchos colores	multi-coloured

¡No es justo!	It's not fair!		
Estoy de acuerdo...	I agree...	Eres demasiado joven.	You're too young.
con tu madre/padre	with your mother/father	En mi opinión, tienes razón.	In my opinion, you're right.
con tus padres	with your parents	¿Tú qué opinas?	What do you think?
contigo	with you		

Palabras muy frecuentes	High-frequency words		
al/a la	to the	este/esta/estos/estas	this/these
del/de la	of the	por eso	for this reason
demasiado/a	too (much)	por supuesto	of course
demasidos/as	too many	¡Lo pasé fenomenal!	I had a fantastic time!

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

Assessments: Speaking and Listening

Define: *Mental Wellbeing*

Mental wellbeing describes your mental state - how you are feeling and how well you can cope with day-to-day life. Our mental wellbeing is dynamic. It can change from moment to moment, day to day, month to month or year to year.

Define: *Emotional Literacy*

The ability to understand and express feelings.
Emotional Literacy involves having self-awareness and recognition of one's own feelings and knowing how to manage them.

Define: *Primary Emotions*

There are 5 primary emotions but over 600 words in the English language for different emotions. The primary emotion groups are:

1. Joy
2. Anger
3. Sadness
4. Disgust
5. Fear

Define: *Mental Illness*

Mental illnesses comprise of a broad range of problems, with different symptoms. However, they are generally characterized by some combination of abnormal thoughts, emotions, behaviour and relationships with others.

They can only be diagnosed by a Doctor or Mental Health Professional

Signs of good mental wellbeing

- Feeling relatively confident in yourself and have positive self-esteem
- Feeling and express a range of emotions
- Building and maintaining good relationships with others
- Feel engaged with the world around you
- Live and work productively
- Cope with the stresses of daily life
- Adapt and manage in times of change and uncertainty

Things that can affect our mental wellbeing

Everyone is different and what affects someone's mental wellbeing won't necessarily affect others in the same way. Everyone will have times when they have low mental wellbeing, where they feel stressed, upset or find it difficult to cope.
Common life events that can affect your mental wellbeing include:

- loss or bereavement
- loneliness
- relationship problems
- issues at work
- worry about money

However there are times when there is no discernable reason for the way a person feels which can be extremely frustrating.

There are some factors that may make people more vulnerable to experiencing a period of poor mental wellbeing. These may have happened in the past or might still be happening now:

- Childhood abuse, trauma, violence or neglect
- Social isolation or discrimination
- Homelessness or poor housing
- A long-term physical health condition
- Social disadvantage, poverty or debt
- Unemployment
- Caring for a family member or friend
- Significant trauma as an adult, such as military combat, being involved in a serious accident or violent crime

Signs of poor mental wellbeing

- Erratic changes in mood and behavior
- Distancing from friends and family.
- Loss of interest in things that they used to be interested in.
- Excessive sleeping or not sleeping.
- Increased alcohol consumption.
- Poor concentration and being easily distracted
- Finding it hard to make decisions
- Feeling overwhelmed by things & tearfulness
- Finding it difficult to control your emotions
- Irritability and short temper or aggression

The Importance of Positive Relationships

Connecting with others can help us to feel a greater sense of belonging and can help to challenge feelings of loneliness.

- **Make time for the people you love.** Keeping regular contact with friends and family, whether it's face-to-face, on the phone or by text, can strengthen your relationships.
- **Join a group.** Think of the things you like to do, such as drawing, gardening or sport and look for local groups. Meeting others with a shared interest can increase your confidence and build your support network.
- **Talk about the way you feel.** Opening up to a trusted friend or family member can help you to feel listened to and supported. Just acknowledging your feelings by saying them out loud can help.
- **Use peer support.** If you're finding things difficult, talking to people who have similar feelings or experiences can help you to feel accepted.

The Importance of Self Care

At times people may feel guilty for spending time on themselves. But it's essential for mental wellbeing and can help people to be more resilient.

Some self care techniques include

- Mindfulness
- Doing something you enjoy
- Relaxation techniques
- Get outdoors and fresh air
- Exercise

If someone is living with a mental health problem, taking steps to look after their mental health can help you improve your wellbeing.
Strategies can include:

- Talking to someone
- Knowing triggers and warning signs
- Keeping a mood diary
- Building your self esteem.

Where to get more help and support

- Parents and trusted family.
- School Staff and Wellbeing Team
- Your Doctor or Practice Nurse
- MIND - https://www.mind.org.uk Help line - **0300 123 3393** open 9am to 7pm, Monday to Friday or Text: 86463
- Young Minds - https://youngminds.org.uk Text: 85258 or Parents Helpline: 0808 802 5544
- Stem4 - https://stem4.org.uk/

Define: *Bullying*

Bullying is the repeated and intentional behaviours which cause harm to another person, either physically, emotionally or psychologically.

Define: *Banter*

Banter is the playful exchange of teasing remarks and jokes between friends where all are in on the jokes and enjoy the exchange.

Define: *By-Stander*

A person who doesn't actively engage in the bullying but watches and doesn't do anything to prevent it.

Define: *Bully*

A person who engages in bullying type behaviour towards one or more people.

Types of Bullying

 Physical	The victim is physically and violently assaulted by the bully. This can including being beaten up, pushed and shoved or the physical taking of items from the victim. This sort of bullying is against the law and should be reported to the police.
 Verbal	This can include name calling, snide comments and the spreading of rumours; it can also constitute harassment in some cases which is illegal and should be reported to the police.
 Emotional	Psychological and emotional bullying s difficult to see, but can include the ostracization of the victim from a particular group, tormenting and humiliating the victim.
 Cyber	Cyberbullying is the use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature, but can also include setting up of malicious websites or posting personal and embarrassing images and videos without the persons permission.
 Specific	This the term used to describe bullying based on an specific aspect of the victims identity such as homophobic, transphobic, Bi-phobic bullying but can also include racist bullying and bullying based on religion. All of these types of bullying are illegal.

Dealing with Bullying

Remember that it is the victim that determines if they believe the behaviour is bullying not the bully.

- **Tell someone** – don't keep it to yourself, find a trusted adult who you can talk to.

- Don't retaliate, try and ignore them if you can.
- Try not to react in front of the bully.
- Stay with trusted friends who will support you.

Dealing with Cyber Bullying

Cyber Bullying can be harder to handle as it anonymous and can impact all aspects of your life.

- **Tell someone** – don't keep it to yourself, find a trusted adult who you can talk to.

- Report the bullying to the website and block the user.
- Do not Retaliate
- Screenshot evidence of the bullying.

Who Can you turn to for help and Support

Parents or trusted family members	Teachers or school Staff
The Police	Friends
NSPCC	Helpline: 0808 800 5000 (24 hours, every day) nspcc.org.uk
Childline	Helpline: 0800 1111(24 hours, every day) https://www.childline.org.uk
National Bullying Helpline	https://www.nationalbullyinghelpline.co.uk/