My Knowledge Organiser and Planner

Year 10

Autumn 1 - 2020

Basic *Expectations* *Every Day*

Right Uniform

Right Equipment

On time

No Disruption

Best Effort

College *Day*

8.40am – 9.35am	Period 1
9.35am – 10.30am	Period 2
10.30am – 10.50am	Break time for years 7, 8 + 10
	Tutor time for years 9, 11 + Post16
10.50am – 11.15am	Break time for years 9, 11 + Post16
	Tutor time for years 7, 8 + 10
11.15am – 12.10pm	Period 3
12.10pm – 1.05pm	Period 4 for years 9, 11 + Post16
	Lunch for years 7, 8 + 10
1.05pm – 2.00pm	Period 4 for years 7, 8 + 10
	Lunch for years 9, 11 + Post16
2.00pm – 3.05pm	Period 5 + DEAR / homework time
3.05pm – 4.00pm	Period 6 for year 11 (some year 12)

Literacy mat

My work

Can I write in paragraphs?

The **TIPTOP** rule
You move onto a new paragraph when you change time, place, topic or person.

1. I always start an essay with **an introduction** which addresses the question.
2. I finish an essay with **a conclusion** to summarise the main points of my argument and to address the question again.
3. I use **connectives** in each paragraph to link my ideas and to put them in a logical order.

○Furthermore	○But	Meanwhile
○Whereas	○Since	Nonetheless
○Nevertheless	○Yet	However
○Alternatively	○Therefore	Although
○Consequently	○Besides	Moreover

Have I used the correct grammar?

I am aware that I must use language that is appropriate to my reader.

- No slang *that lesson was ~~bangin'~~*
- No informal language *I'm ~~gonna~~ do my homework now*

❖Other things to consider:

- ✓ I am clear about the purpose of this piece of writing
- ✓ I know who my audience is
- ✓ I will use a suitable layout and text type

I am proud of my work because...

- I have written clearly so that my reader can understand my writing easily.
- I have checked my **spelling** and corrected any errors.
- I have used full sentences with a subject and a verb.
- I have used correct **punctuation** and **grammar**.
- I have paragraphed my work using **TIPTOP**.
- My writing is suitable for the person I am writing for.

Can I spell familiar words accurately?

Common contractions

We must use an apostrophe to replace any letter(s) we have left out.

11 o'clock	I'd	They're	Who'll
Aren't	I'll	Wasn't	Who's
Can't	I'm	We'd	Why'd
Couldn't	Isn't	We'll	Why'll
Didn't	It'd	We're	Why's
Doesn't	It'll	Weren't	Won't
Don't	It's	What'd	Wouldn't
Hadn't	Mightn't	What'll	You'd
Hasn't	Mustn't	What's	You'll
Haven't	Shan't	When'd	You're
He'd	She'd	When'll	
He'll	She'll	When's	
He's	She's	Where'd	
How'd	Shouldn't	Where'll	
How'll	They'd	Where's	
How's	They'll	Who'd	

Can I use different sentence types?

Simple sentences: contains a subject and a verb and can contain an object

- Sarah likes to read in the library.
- Tom enjoys reading at home.

Compound sentences: joins two simple sentences using the connectives: *for, and, nor, but, or, yet, so.*

- Sarah likes to read in the library but Tom prefers to read at home.

Complex sentences: A complex sentence contains a conjunction such as *because, since, after, although,* or *when* .

- Because Robert felt tired, he only studied for an hour.
- Although the rain had stopped, the pitch was still water-logged.
- Paul enjoys Music, however, he is more proficient in Art.

Homophones

I have checked that I have not mixed up my homophones.

	Meat/meet
Affect/effect	One/won
Bare/bear	Passed/past
Brake/break	Peace/piece
Buy/by	Practice (n)/practise (v)
For/four	Read/red
Flour/flower	Sea/see
Grate/great	Sight/site
Hair/hare	Son/sun
Hole/whole	To/too/two
Hour/our	Wait/weight
Knight/night	Weak/week
Know/no	Wear/where

What traffic light am I?
Is my punctuation accurate?

Literacy mat

Basics:

- Every sentence must start with a capital letter.
- Every sentence must finish with some form of punctuation: .?!
- Proper nouns need capital letters. These are **unique** people, places or things *e.g. there are many cities so 'city' doesn't take a capital letter. However there is only one London, therefore it takes a capital letter.*
- When writing titles of works such as books, films or plays:
  - Capitalise the first word
  - Capitalise any main/important words
  - Don't capitalise minor words such as 'and', 'of' or 'the' *e.g. The Sound of Music, The Wizard of Oz, Harry Potter and the Goblet of Fire*
- When writing speech:
  - ✓Go to a new line when a different person speaks *e.g. "Good morning" said the Headteacher.*
    "It's the afternoon!" replied the student.
  - ✓Each person's speech is marked with speech marks *e.g. "Walk on the left" said Mr Mathews.*

Can I spell accurately?

- Sound out the word
- Think about how it looks
- Think about a similar word
- Is there a memory sentence for this word? (e.g. big elephants cannot always use small exits)
- Find the word in a list –
  - Key words list
  - Frequently used words list
  - Your own word bank
- Look it up in a dictionary/spellchecker
- Ask a friend or teacher
- To learn it: look, cover, write , check
- Once you've solved it, add the correct spelling to your own word bank.

Can I use punctuation?

The Apostrophe

I always aim to use apostrophes correctly.

There are two main reasons why we use apostrophes: for possession and to replace a letter or letters

Note: Apostrophes are NEVER used to denote plurals

Full stop	.	indicates that a sentence has finished
Comma	,	indicates a slight pause in a sentence, separates clauses in a complex sentence and items in a list
Question mark	?	goes at the end of a question
Exclamation mark	!	goes at the end of a dramatic sentence to show surprise or shock
Apostrophe	'	shows that letter(s) have been left out or indicates possession
Speech marks	""	indicate direct speech, the exact words spoken or being quoted
Colon	:	introduces a list, a statement or a quote in a sentence
Semicolon	;	separates two sentences that are related and of equal importance
Dash / hyphen	-	separates extra information from the main clause by holding words apart
Brackets	( )	can be used like dashes, they separate off extra information from the main clause
Ellipsis	...	to show a passage of time, to hook the reader in and create suspense

Apostrophe for Possession

(To show that something belongs to another)

If a single thing/person owns anything, add an apostrophe + 's'.

- The dog's bone
- The boy's homework
- Jones's bakery
- Yesterday's lesson

However, if it is plural (more than one), an apostrophe comes after the 's'.

- The dogs' bones
- The boys' homework
- Joneses' bakeries (lots of Jones families)
- Many websites' content is educational

There/ their/ they're

Note: special care must be taken over the use of **there**, **their** and **they're** as they sound the same but are used quite differently:

- **There** shows position *Your seat is over there*
- **Their shows that 'they' own something** *Their blazers are navy blue*
- **They're** is short for **they are** as in *They're revising every day*

ITS

Note: its, which shows that something owns something (like our, his etc), does not take an apostrophe: *the dog ate **its** bone and we ate **our** dinner*

Your/ you're

Note: special care must be taken over the use of **your** and **you're** as they sound the same but are used quite differently:

- **Your** is possessive as in *this is your pen*
- **You're** is short for you are as in *you're coming over to my house*

Art and Design – Fine Art

Proportion – the size of objects/shapes when compared to each other.
Media/medium – the materials and tools used by an artist to create a piece of art.
Technique – the skill in which an artist uses tools and materials to create a piece of art.
Abstract – a piece of art that is not realistic. It uses shapes, colours and textures.
Composition – the arrangement and layout of artwork/objects.
Highlight – the bright or reflective area within a drawing/painting where direct light meets the surface of the object or person.
Shadow, shade, shading – the darker areas within a drawing or painting where there is less light on the object or person.

ASSESSMENT OBJECTIVES

AO1 – Critical Understanding
Develop ideas through investigations, demonstrating critical understanding of sources.

AO2 – Creative Making
Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.

AO3 – Reflective Recording
Record ideas, observations and insights relevant to intentions as work progresses.

AO4 – Personal Presentation
Present a personal and meaningful realises that realises intentions and demonstrates understanding of visual language.

How to create an artist research page;

Don't forget to use your support booklet

Introduce the artist.
* Name, Date, Title.

Describe the artwork.
* In this image I can see….

Analyse the formal elements.
* The formal elements in this image are……

Discuss your opinion about the artwork.
- In my opinion, ……
- I find this artwork interesting because….
- I am inspired by……
- I like/dislike…….

Explore the style of the artist through the presentation and visual studies you include in your written work.

Finally, when you have finished all your references, **compare the artworks**. What are their similarities/differences? Which do you prefer and why?
- **These artworks are similar because ……**
- **They are different because….**
- **I prefer……because….**
- **These artists link to my topic of…….because**….
- **The artist was influenced by**…….

Write in full sentences and use key vocab. Check spellings, use of capital letters and punctuation. Proof read your work.
Can you use conjunctive adverbs in your sentences? **However? Furthermore?**

Artist name and art movement

A sentence or two about when and where the artist lived. Does this affect how their work looks?

An example of their work

A few sentences about what their art looks like.

An example of their work

A paragraph about what you think about the work. Do you like it? Do you dislike it? Why?

Your own version of a similar subject (not a direct copy)

- ❑ WOW page of collage linked to theme with
- ❑ Mind map double page
- ❑ Drawing from observation
- ❑ Own Photographs
- ❑ Artist 1 Bob and Roberta Smith/ Tom Philips
- ❑ Experiments-typography, silhouettes, text, book page, words.
- ❑ Analysis
- ❑ Mini outcome
- ❑ Artist 2 Kara Walker/ Rex Ray
- ❑ Experiments Paint techniques and collage.
- ❑ Analysis
- ❑ Mini outcome
- ❑ Artist 3 Da Vinci/ Henry Moore/Van Gogh.
- ❑ Experiments- Drawing/ mark making.
- ❑ Analysis
- ❑ Mini outcome
- ❑ ***Plan for refined outcome***
- ❑ ***Further experiments***
- ❑ ***Outcome***
- ❑ ***Reflection/ Evaluation.***

FORMAL ELEMENTS;
COLOUR, SPACE, LINE, PATTERN, TEXTURE, SHAPE, FORM, TONE

Art and Design – Graphic Media

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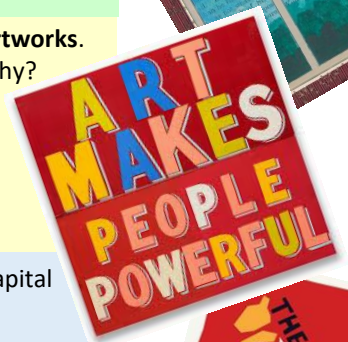

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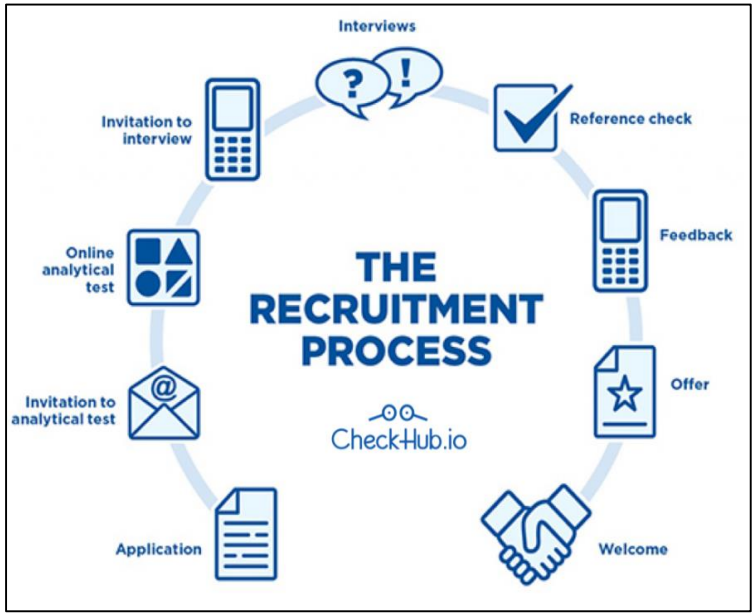
FORMAL ELEMENTS;
COLOUR, SPACE, LINE, PATTERN, TEXTURE, SHAPE, FORM, TONE

Module 4.2: Recruitment and Selection of employees



Once a **shortlist** is created, then a series of challenges can be used to choose the right candidate for a job role.

- Interviews
- **Psychometric Tests**
- Assessment Centres

Module 4.2: Contracts of Employment

Permanent contract of employment E.g. Administrator or Office Manager	Fixed term contract of employment E.g. subject to funding or to cover maternity leave	Self-employed contract for services E.g. for a project or sometimes a cleaner
		Casual/zero based hours contract E.g. for a café worker

Keywords

Recruitment: The process of finding and appointing new employees.
Shortlist: A list of potential candidates who meet the requirements of the job role.
Curriculum Vitae: Also known as a CV; this provides information about a person, including qualifications, employment history and interests.
Psychometric Tests: These are multiple-choice tests designed to show the personality of candidates.
Candidates: The applicants who are interested in the job role advertised by a business.
Contract of Employment: A legal document stating the hours of work, rates of pay, duties and responsibilities undertaken in the role.
Full time employment: Hours which usually fall between 35-40 hours per week.
Part-time employment: Hours which usually fall between 10-30 hours per week.
Job share: This is where two (or more) employees share the responsibilities of a single job role.
Zero hours contract: Allows a business to hire staff without any guaranteed hours of work.

REMEMBER
POINT, EXPLAIN, IMPACT when answering a 6 mark question.

Design principles

Colours:	• use of range of colours • use of organisational house style • ensuring that colours do not clash • use of textures	Font style/ size:	• ensuring text style/style is readable • use of sans serif fonts for screen reading • avoiding decorative fonts
Language:	• using appropriate language for user needs and skill level	Amount of information:	• appropriate amount of • information • making appropriate use of white space
Layout:	• consistency • keeping the layout as close as possible to user expectations • placing important items in prominent positions • grouping related tasks together • use of navigational components	User perception:	• colour • sound • symbols • visuals
Retaining user attention:	• grabbing attention • screen is uncluttered • clearly labelled items/features • use of predetermined/default values for common user inputs • use of auto-fill • use of tip text	Intuitive design:	• use graphics to denote what buttons do • helpful pop-up messages • easy-to-use help feature • ensuring consistency • easy reversal of actions

Audience needs of a user interface

Accessibility needs:	• visual • hearing • speech • motor • cognitive
Skill level:	• expert • regular • occasional • novice
Demographics:	• age • beliefs/values • culture • past experiences

User Interface - the means by which the user and a computer system interact, in particular the use of input devices and software.

Types of interface:	• text based • speech/natural language • Graphical User Interface/Windows, Icons, Menus, Pointers • sensors • menu/forms	Factors:	• performance/ response time • ease of use • user requirements • user experience • accessibility • storage space
Range of uses:	• computers • handheld devices • entertainment systems • domestic appliances • controlling devices • embedded systems	Influences:	• operating systems/platforms • types/size of screen • types of user input • hardware resources available • emerging technologies

Design Technology - Engineering

Key knowledge

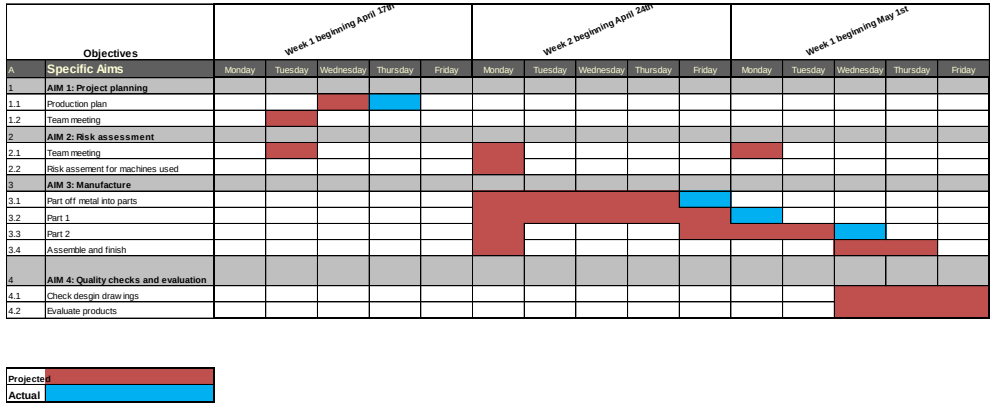
Job Sheet

A **job sheet** is a document (usually just a page) containing instructions to help a worker do his **job**. It also contains details such as time it takes to perform a **job** and the materials needed or **used** for a **job**. Some **job sheets** have blank quantity for the worker to fill up during or after performing the **job**.

Item Number	Qty	Decscription	Material	Length	Width	Depth	Finish	Tolerance
1								
2								
3								

Gantt Chart

A Gantt chart is a type of bar chart that illustrates a project schedule. This chart lists the tasks to be performed on the vertical axis, and time intervals on the horizontal axis. The width of the horizontal bars in the graph shows the duration of each activity.



Vocabulary

Orthographic - A formal engineering drawing that uses a 2D drawing of each side of an object and consists of a front view, a side view and a plan view.

Isometric - Isometric projection is a method for visually representing three-dimensional objects in two dimensions in technical and engineering drawings.

Cross section - a section of something that has been cut down the middle to show what is inside.

Hidden detail - occurs when a feature of an object cannot be seen in one or more views.

Ferrous – Contains iron and rusts. Also, magnetic: Low carbon steel.

Non Ferrous – A metal without iron that is usually conductive.

Alloy – A mixture of two or more metals.

Tolerance – Variation of a dimension ie +/- 0.5mm that will still enable a component to function correctly .

Dimension - Measurements of length, width, and thickness. Standard unit we use is millimetres (mm).

Quality control - A drawing that shows a real object with accurate sizes reduced or enlarged by a certain amount.

QR codes

Ortho drawing

Metals revision

Revision book

Centre Lathe

Design Technology - Fashion

Fibres and Fabrics

Most fabrics come from a single, fine structure called a fibre. These fibres can come from a natural or synthetic source.

Natural fibres come from plants or animals. Examples are cotton, from a cotton plant and silk from a silk worm. These fibres are renewable.
Synthetic fibres are man made. They are non renewable as come from finite resources such as coal and oil. Examples are polyester and nylon.

Fabric Construction

Plain weave – the simplest weave where one weft yarn passes under and over one warm yarn. E.g. calico.
Knitted – A knitted fabric is made from interlocking loops, using one or more yarns.
Bonded – These fabrics are made directly from fibres and not from yarns. They are held together by applying heat which melts the fibres together or by applying glue.
Felted – These fabrics are made using wool fibres. The fibres have scales which lock onto each other when moisture, heat and movement is applied.

Vocabulary

Modern Material – A material developed through the invention of new or improved processes or materials.

Technical Textiles – A material which have been developed purely for its functional use.

Smart **Material – A material which** reacts to its environment. The change is reversible.

Dye sublimation – Sublimation ink is can convert a solid to a gas without going through a liquid form. It is initiated using heat and controlled with pressure and time.

Staple fibre – A short fibres

Filament Fibre – a long, continuous fibre.

QR codes

SCAN ME

SCAN ME

SCAN ME

Smart Materials

Thermochromic – A material which undergoes a reversible change of colour when heated or cooled.
Hydrochromic – A material which undergoes a reversible change of colour when exposed to water.
Photochromic – A material which undergoes a reversible change of colour when UV light is applied.
Polymorph – A thermoplastic material that can be shaped and reshapes any number of times. It can be heated in hot water and when it reaches 62 degrees centigrade the granules form a mass of clear material.

Technical Materials

Nomex – A flame resistant material. It withstands intense heat and is worn by fire fighters and Formula 1 racing car drivers for protection.
Kevlar – A tightly woven fabric that have great impact resistance. It is used in racing tyres, racing sails, gardening gloves and bulletproof vests.
Microfibres – Much thinner than human hairs. They can be coiled to provide a very warm, soft or absorbent material that can be used in winter clothes or cleaning cloths.
Rhovyl – An antibacterial material that have antibacterial agents integrated in to the fibre itself.

Design and Technology – Food Preparation and Nutrition

Key Vocabulary	
Enzymic Browning	Discoloration of certain foods caused by oxygen and enzymes
Primary Processing	The conversion of raw materials into food commodities, for example milling of wheat grain into flour.
Classification	Putting into groups
Seasonal	Food items that grow at certain times of the year according to the climate
Organic	Any food that is grown or made without the use of chemicals
Drying	A useful preservation method for fruits and herbs. For example raisins, apricots, dried basil.
Canning	Canned fruits include pineapple, peaches and mandarins. They are usually in a liquid such as natural juice or sugar syrup. Canned vegetables have a much softer texture than fresh vegetables due to the high temperature used in the canning process.
Bottling	Bottling is when fruit and vegetables are prepared and placed in special glass jars with sugar syrup brine. The jars are sealed and heated to a high temperature to sterilise the contents. This will destroy any microorganisms and will preserved the fruits and vegetables for several months.
Pickling	A preservation method that uses acetic acid naturally found in vinegar.
Freezing	By freezing food the water inside turns into ice and this stops the growth of microorganisms. Some fruits and vegetables need to be blanched first to stop enzymic activity.
Jam making	A method of preserving fruit using high temperature and sugar. The combination of heat, sugar and pectin in the fruit enables the jam to form a gel and set on cooling.
Gelatine	A natural protein substance present in the tendon, ligaments and tissue of animals. It is translucent and colourless. It is used to set desserts such as cheesecakes.
Staple Foods	Food that forms a large part of the diet, usually starchy foods

All **fruits** and **vegetables** come from **plants** that are grown in the ground. Not all parts of each plant are eaten. The fruit is the part of the plant that holds the seeds, which will form new plants.

Vegetables are categorised as:

Root	Beetroot, parsnips, Swede	**Seeds and Pods**	Beans, Peas, Lentils
Stems	Asparagus, Celery	**Flower Heads**	Broccoli, Cauliflower
Tubers	Potato, Jerusalem Artichokes	**Leaves**	Cabbage, Spinach
Fungi	Mushrooms,	**Sea Vegetables**	Samphire, Nori, Kelp
Bulbs	Leeks, Onions	**Vegetable Fruits**	Aubergines, Tomatoes

Fruits are categorised as:

Hard	Apples, Pears, Quince	**Dried**	Raisins, Figs, Apricots
Soft	Blackberries, Strawberries	**Stoned**	Cherries, Peaches, Plums
Citrus	Oranges, Lime, Grapefruit	**Tropical**	Water melon, Mango, Coconut

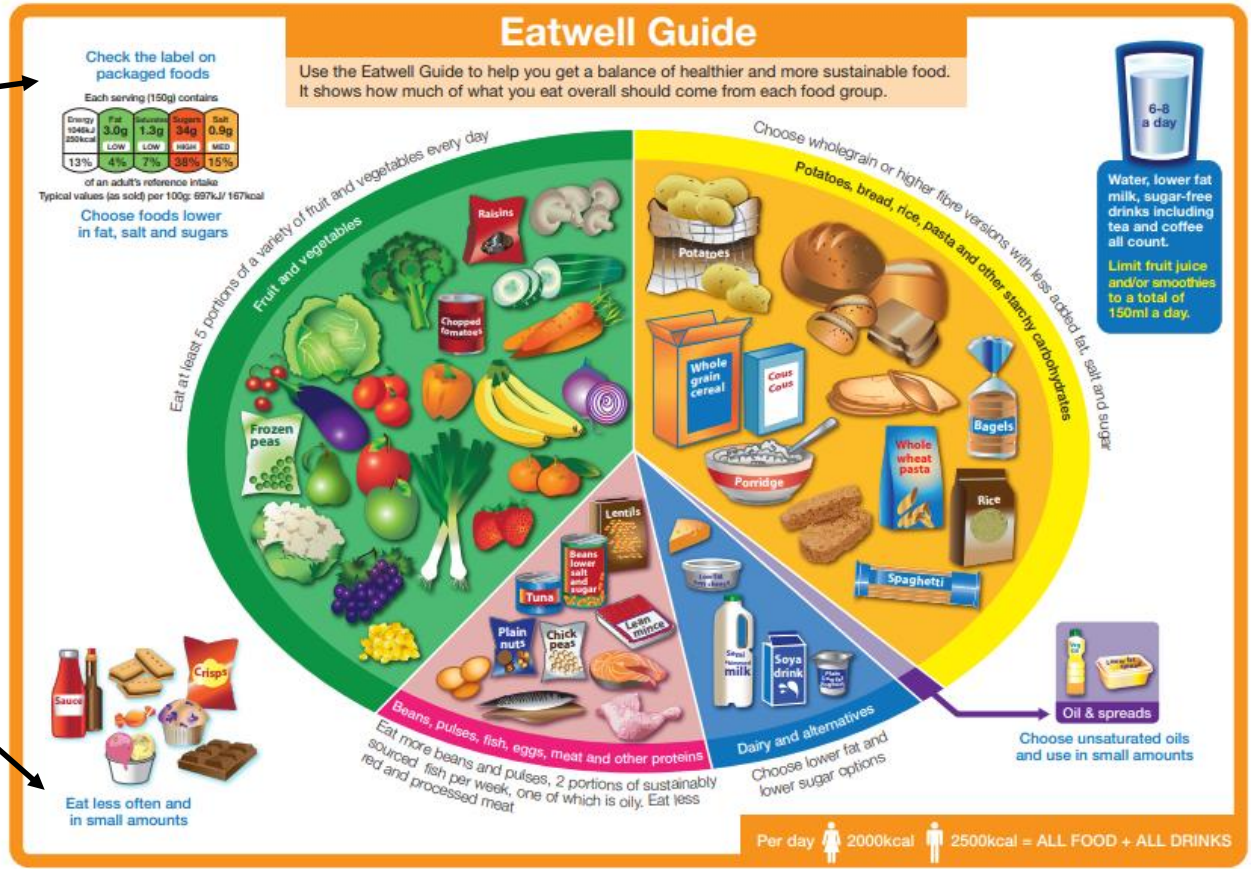
	Key Nutrients		Why is this essential for health
Fruit and Vegetables	**Carbohydrate**	Starch: is stored in the roots and tubers of vegetables. Some of the starch is converted to sugar in vegetables such as beetroot, onions, peas and tomatoes. Sugar: Fruit contains natural sugar in varying amounts depending on type.	Provides slow and steady release of energy. Keeps our blood sugar levels constant because they enter the blood stream very slowly.
	Vitamin A	Fat-soluble vitamin A beta carotene is found in dark green vegetables and in red, orange and yellow coloured fruits.	Needed for a healthy immune system Helps us to see in dim light.
	Vitamin C	Found in citrus fruit and berry fruits. Green vegetables, peppers and tomatoes. Potatoes are also a useful source.	Fights infection.
	Vitamins E & K	Found in green vegetables and peas	Vitamin E - Maintains healthy skin and eyes and strong immune system Vitamin K - Wound healing and blood clotting
	Calcium and Iron	Found in green leafy vegetables including watercress and spinach	Needed for bone formation, heart function and healthy red blood cells
	Dietary fibre/NSP	Found in the skin, seeds, pith and fibrous parts of fruit and vegetables.	Aids digestion and prevents constipation. Fibre lowers the risk of heart disease, strokes, type 2 diabetes and bowel cancer.

Eatwell Guide

The Eatwell Guide shows how eating different foods can make a healthy and balanced diet. It divides food into groups and shows how much of each food group is needed for a healthy diet.

A traffic light colour coded food label which helps you choose healthy food

Foods high in fat and/or sugar have been removed from the main segments as these should be eaten less often and in small amounts.



8 Tips for Healthy Eating

1. Base your meals on starchy foods
2. Eat lots of fruits and vegetables
3. Eat more fish—including a portion of oily fish each week
4. Cut down on saturated fat
5. Eat less salt
6. Get active
7. Drink plenty of water
8. Don't skip breakfast

Macro Nutrients

Protein is needed for growth, repair, maintenance and energy.

Carbohydrate provides the body with energy.

Fat keeps the body warm, provides energy, protects vital organs and provides fat soluble vitamins

Micro Nutrients Vitamins & Minerals

Vitamin A Keeps the eyes and skin healthy
Liver, milk, carrots, red peppers

Vitamin B Releases energy from food
Bread, fish, broccoli, liver, milk, peas, rice

Vitamin C Keeps connective tissue healthy. Helps the body to absorb iron
Oranges, blackcurrants, broccoli, red and green peppers

Vitamin D Helps the body to absorb calcium for strong bones and teeth
Butter, eggs, milk and oily fish

Calcium Builds strong bones and teeth
Yoghurt, cheese, milk, tofu

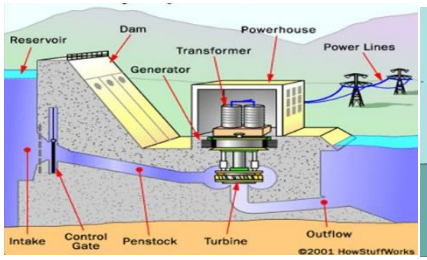
Iron Keeps red blood cells healthy
Green vegetables, beans, fish, egg yolk, red ,meat

Sodium (Salt) Keeps the correct water balance
Cheese, bacon, salted nuts, ready meals

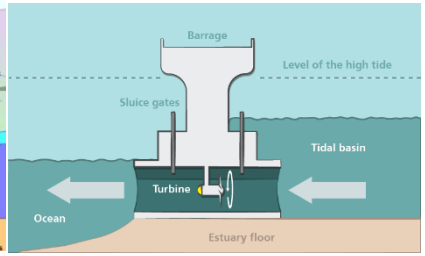
Design and Technology – Workshop

Keywords

Tool path	Line the cutter will take when cutting work on the router
Contour	A line around the out/inside of another
CNC lathe	Lathe controlled by a computer
Jig	Something of a given size used to save measuring
Batch Production	Making a defined number of the same items. eg 12 cakes
Component	A part *example, screw, LED, resistor, bolt*
Quality Assurance	The process put in place to ensure all parts will be the same
Series circuit	Where electricity passes from 1 component into another
Parallel circuit	Where each component draws power for positive / negative
LED	Light emitting diode. Often used as a warning light
Polarity	The way the + and—on a DC circuit are connected
Resistor	An electronic component used to slow the current down
Test	Checking fitness for purpose
CNC	Term used to classify machines controlled buy a computer
CAD	Computer aided design
CAM	Computer aided making (manufacture)
Router	Machine used to cut out maze
2D Design	CAD program used in schools
Insulate	To stop something heat / electricity being conducted
Heat Shrink	Tubing put around wire and shrunk to hold in place
Soldering Iron	Tool used to melt solder
Solder	Metal with a low melting point used to join electronics
Resistor	Component used to slow the current of electricity
Solvent	Liquid used to dissolve something
Tensol Cement	Solvent cement used to join acrylic to acrylic
Dissolve	To melt or soften into a liquid



A Hydroelectric Power Plant



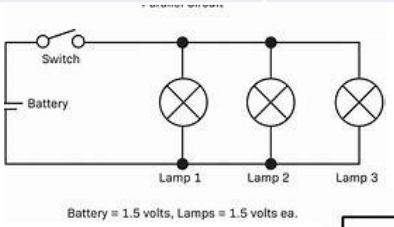
A Tidal Power Plant

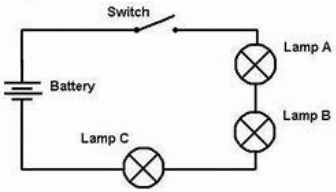
Electricity Generation

Fossil Fuels	Nuclear	Renewable
Fuels such as coal gas and oil are fuels formed over millions of years from dead organisms These are burnt to create heat and convert water to steam which driver turbines connected to generators. **Advantages:** Can be built anywhere. **Disadvantages:** Burning fossil fuels releases carbon dioxide which adds to the greenhouse effect and possible global warming. Fossil fuels are non finite resources.	In a nuclear reactor, uranium atoms are split using a process called fission. This process causes heat which is used to create steam which can turn turbines. **Advantages:** High output, reliable, minimal output of greenhouse gasses. **Disadvantages:** Potentially hazardous. Many old power stations need replacing. Dealing with spent fuel leaves longstanding complications. There have been several high profile accidents.	Renewable energy is gathered from sources such as wind, solar, tidal, water or hydroelectricity, wave power, biomass. **Advantages:** Renewables tend not to produce much, if any waste. They also do not add significantly to global warming. **Disadvantages:** Sources are unreliable. Solar cells only work when the sun is shining, hydroelectricity requires damming river and flooding valleys etc. Infrastructure can be expensive.

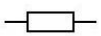
Series and Parallel Circuits

In this series circuit, electricity flows through 1 component, on to another and into a 3rd light before completing it's circuit. This causes all bulbs to light but not brightly.
In a parallel circuit, each bulb draws an independent power supply from the battery or power supply. This draws more current and the bulbs light fully however the battery will not last as long.





Electronic Symbols

Switch	Battery	LED	Resistor	Bulb	Buzzer	Speaker	Motor
							

Drama - Component 3 : Section A - DNA By Dennis Kelly

DNA

Playwright	Dennis Kelly			
Date released	2007			
Style/ genre	Naturalistic	Stanislavski	Dark Comedy	
Themes	Responsibility	Gangs	Power/ status	Friendship
Setting	A wood	A street	A field	

Plot summary A group of teenagers do something bad, really bad, then panic and cover the whole thing up. But when they find that the cover-up unites them and brings harmony to their otherwise fractious lives, where's the incentive to put things right? DNA is a poignant and, sometimes, hilarious tale with a very dark heart.

Component 3: Interpreting Theatre

SECTION A: Set Text

- A series of questions on one set text explored as an actor, designer and director, from a choice of five SET TEXT.

SECTION B: Live Theatre

- One question, from a choice of two, requiring analysis and evaluation of a live theatre trip you have watched.

Written exam in the Sports Hall (1 hour 30 minutes)

Characters

John Tate	Starts as the leader of the group. School bully.
Phil	Eats a lot. Quiet. Emotionless. Only talks when needs to step up to tell the group what to do.
Leah	Often talking a lot over Phil's silences and seeks his attention. Often worried about the group's actions.
Mark	Act as a narrator next to Jan. Always help to cover things up.
Jan	Act as a narrator next to Mark. Always helps to cover things up.
Cathy	Violent and ruthless. Shows no empathy towards Adams death.
Brian	Weakest of the group members. He's bullied into covering up Adams death.
Lou	Worries about the group getting caught. She follows whoever is in charge.
Richard	Challenges John Tate's leadership. Goes along with the group.
Danny	Selfish character that is worried about Adam's death as it could stand in the way of him becoming a dentist.
Adam	The victim.

Keywords:

Voice	Body
Pitch: High or low	Facial Expression: Eyes, eyebrows, mouth, cheeks, nose.
Pace: Fast or slow	Body Language: How can you show emotion using your body?
Pause: Lots of "beats" in the stage directions to create tension.	Gesture: what does the character do with your hands. Giving direction, adding emphasis.
Projection: How far do actors make their voices travel. Who is being addressed? A friend/ a group?	Gait: How does the character walk?
Volume: How loud is your voice?	Posture: How does the character stand.
Diction: Would your character say "butter" or "bu-eer".	Idiosyncrasies: Habits. Nail biting, playing with hair etc.
Accent: Tells the audience where your character is from.	Proxemics
Breath: Are you out of breath?	The special relationship between characters, audience and set.

Design

Lighting: How can light be used to enhance the design of a naturalistic set.
Sound: What sound effects would be naturalistic for each scene?
Set: "A wood" "A field" "A street".
Hair, make-up, costume: What costumes would be appropriate for the characters?

English – Language

Analytical Verbs

Apply- employ for a particular purpose
Appraise- consider in a comprehensive way
Argue- have a disagreement about something
Assert- declare or affirm solemnly and formally as true
Assess- estimate the nature, quality, ability or significance of
Classify- arrange or order by categories
Compose- form the substance of
Conclude- bring to a close
Construct- make by combining materials and parts
Contrast- the opposition or dissimilarity of things that are compared
Critique- appraise or judge in an analytical way
Debate- a discussion with reasons for and against
Deduce- reason from the general to the particular
Demonstrate- give an exhibition of to an interested audience
Develop- progress or evolve through a process of natural growth
Differentiate- acquire a distinct character
Discuss- to consider or examine in speech or writing
Distinguish- mark as different
Evaluate- estimate the nature, quality, ability or significance
Examine- observe, check out, and look over carefully or inspect
Explain- make plain and comprehensible
Identify- recognise as being
Illustrate- depict with a visual representation
Integrate- make into a whole or make part of a whole
Interpret- make sense of; assign a meaning to
Invent- come up with after a mental effort
Justify- show to be right by providing proof
Outline- the line that appears to bound an object/idea
Paraphrase- express the same message in different words
Perform- get done
Predict- tell in advance
Prepare- make ready or suitable or equip in advance
Propose- present for consideration, examination, or criticism
Prove- establish the validity of something
Recall- bring to mind
Recite- repeat aloud from memory
Relate- give an account of
Report- to give an account or representation of in words
Review- look at again; examine again
Select- pick out or choose from a number of alternatives
Separate- standing apart; not attached to or supported by anything
State- express something definitely or clearly in speech or writing

Tentative Language

- It is as if…
- Perhaps…
- It could be argued that…
- It may appear…
- It could indicate…
- It is possible that…
- It is likely that…
- You might suggest that…
- It seems as though…
- A belief may be…
- An assumption may be…
- It is probable that…
- It is widely agreed that…

Critical Adverbs

- **Abnormally**- out of the realm of normalcy
- **Absurdly** – illogical or inappropriate
- **Ambitiously**- done with the intention of meeting high aspirations
- **Appropriately** – right or expected
- **Brutally**- meaning extremely unpleasant
- **Creatively**- done in an original or imaginative way
- **Extremely**- to a great degree; very
- **Frequently**- often
- **Highly**- to a high degree or level
- **Importantly** – with importance
- **Incredibly**- unbelievably
- **Ironically** - happening in a way contrary to what is expected
- **Mildly**- to a slight extent
- **Paradoxically** – contradictory
- **Predictably** – as expected
- **Surprisingly**- happens unexpectedly
- **Swiftly**- done in a fast way
- **Thoroughly**- done in a complete way
- **Unexpectedly**- surprisingly
- **Unusually**- out of the ordinary
- **Vividly**- strong or bold appearance; bright

Comparative Conjunctions

- additionally
- also
- as well
- even
- furthermore
- in addition
- indeed
- let alone
- moreover
- not only

Contrasting Conjunctions

- alternatively
- but
- by contrast
- differs from
- however
- in contrast
- in other respects
- in spite of this
- instead
- nevertheless
- on the contrary
- on the other hand
- whereas
- yet

Sharpen Your Expression

Aberration- a state or condition markedly different from the norm
Abhor- find repugnant
Acquiesce- agree or express agreement
Alacrity- liveliness and eagerness
Amiable- diffusing warmth and friendliness
Appease- make peace with
Avarice- reprehensible acquisitiveness; insatiable desire for wealth
Brazen- unrestrained by convention or propriety
Brusque- rudely abrupt or blunt in speech or manner
Cajole- influence or urge by gentle urging, caressing, or flattering
Chide- scold or reprimand severely or angrily
Circumspect- careful to consider potential consequences and avoid risk
Clandestine- conducted with or marked by hidden aims or methods
Coerce- cause to do through pressure or necessity
Coherent- marked by an orderly and consistent relation of parts
Complacency- the feeling you have when you are satisfied with yourself
Connive- form intrigues (for) in an underhand manner
Cumulative- increasing by successive addition
Cynical- believing the worst of human nature and motives
Debase- make impure by adding a foreign or inferior substance
Decry- express strong disapproval of
Deferential- showing courteous regard for people's feelings
Demure- shy or modest, often in a playful or provocative way
Deride- treat or speak of with contempt
Despot- a cruel and oppressive dictator
Diligent- quietly and steadily persevering in detail or exactness
Elated- exultantly proud and joyful; in high spirits
Eloquent- expressing yourself readily, clearly, effectively
Empathy- understanding and entering into another's feelings
Enmity- a state of deep-seated ill-will
Erudite- having or showing profound knowledge
Fabricate- put together out of artificial or natural components
Feral- wild and menacing
Forsake- leave someone who needs or counts on you; leave in the lurch
Fractious- easily irritated or annoyed
Furtive- secret and sly or sordid
Gluttony- habitual eating to excess
Gratuitous- unnecessary and unwarranted
Haughty- having or showing arrogant superiority
Hypocrisy- pretending to have qualities or beliefs that you do not have
Impeccable- without fault or error
Impertinent- improperly forward or bold
Implacable- incapable of being appeased or pacified
Implicit- suggested though not directly expressed
Impudent- improperly forward or bold
Incisive- demonstrating ability to recognize or draw fine distinctions
Indolent- disinclined to work or exertion
Inept- generally incompetent and ineffectual
Infamy- a state of extreme dishonor
Inhibit- limit the range or extent of
Innate- present at birth but not necessarily hereditary
Insatiable- impossible to fulfill, appease, or gratify
Insular- relating to or characteristic of or situated on an island
Intrepid- invulnerable to fear or intimidation
Jubilant- full of high-spirited delight
Lithe- moving and bending with ease
Lurid- glaringly vivid and graphic; marked by sensationalism
Maverick- someone who exhibits independence in thought and action
Meticulous- marked by precise accordance with details
Modicum- a small or moderate or token amount
Morose- showing a brooding ill humor
Myriad- a large indefinite number
Nominal- relating to or constituting or bearing or giving a name
Novice- someone new to a field or activity
Nuance- a subtle difference in meaning or opinion or attitude
Oblivious- lacking conscious awareness of
Obtuse- of an angle, between 90 and 180 degrees
Parody- a composition that imitates or misrepresents a style
Penchant- a strong liking
Perusal- the act of examining or reading carefully
Plethora- extreme excess
Predilection- a predisposition in favor of something
Quaint- attractively old-fashioned
Rash- imprudently incurring risk
Rife- excessively abundant
Salient- conspicuous, prominent, or important
Superfluous- more than is needed, desired, or required
Taciturn- habitually reserved and uncommunicative
Truculent - defiantly aggressive
Umbrage- a feeling of anger caused by being offended
Vociferous- conspicuously and offensively loud

English – Literature paper 1 : A Christmas Carol

Literature Paper 1

Section A Romeo and Juliet	Extract given and 1 question to answer
Section B A Christmas Carol	Extract given and 1 question to answer

A Christmas Carol

Dickens wrote this story in 1843. At the time there was a tradition for reading ghost stories at Christmas, hence the numerous spirits that Scrooge encounters. The themes of wealth and injustice are clear comments on the inequalities of wealth distribution in Victorian England.

Dickens said this about A Christmas Carol:

"I have endeavoured in this Ghostly little book, to raise the Ghost of an Idea, which shall not put my readers out of humour with themselves, with each other, with the season, or with me. May it haunt their houses pleasantly, and no one wish to lay it."

Stave One

Dickens begins his novella by introducing the miserly Ebenezer Scrooge, his poor clerk Bob Cratchit, and the ghost of Scrooge's late partner, Jacob Marley. The ghost tells Scrooge he will be visited by three spirits during the night.

- Ironmongery - *a store that sells iron works*
- Unhallowed - *something unholy*
- Residuary - *the person entitled to the remainder of an estate*
- Ramparts - *anything that acts as a barricade*
- Entreaty - *a sincere request*
- Trifle - *something of little value*
- Phantoms - *spirits or illusions*
- Intimation - *a suggestion*
- Morose - *a bleak outlook or attitude*
- Impropriety - *something improper or inappropriate*
- Resolute - *a determined outlook*
- Homage - *to pay public respect or honor something*
- Ominous - *to give an impression of doom or imply bad things will happen*
- Facetious - *to treat something serious with a deliberate lack of care*
- Brazier - *a portable heater that uses lighted coals*
- Solitude - *to be alone*
- Misanthropic - *disliking people in general and having an anti-social bad attitude*
- Garret - *a room just under the roof of a house that's usually very small*
- Congenial - *a pleasant or friendly personality*
- Phenomenon - *a fact or situation which is unexplained*
- Irresolution - *to be uncertain*
- Transparent - *something that is see-through or fully explained*
- Caustic - *bitter sarcasm*
- Waggish - *playful or mischievous humor*
- Spectre - *ghost or vision*
- Remorse - *to deeply regret something*
- Benevolence - *well-meaning and kind*
- Apparition - *a ghost or other human-like spirit*
- Dirge - *a funeral song*

Stave Two

The First of the Three Spirits. The first spirit to visit Scrooge is the Ghost of Christmas Past, who shows him scenes from his lonely childhood and a broken engagement to a lovely young woman because of his greed.

- Opaque - *something that is unclear*
- Preposterous - *absurd or ridiculous*
- Perplexed - *confused*
- Endeavored - *tried hard to achieve*
- Recumbent - *something laying down*
- Fluctuated - *to irregularly rise and fall*
- Supplication - *earnest begging*
- Vestige - *a small trace of something that is no longer here*
- Extraordinary - *something unusual*
- Condescension - *an attitude of disdainful superiority*
- Celestial - *part of the heavens*
- Terrestrial - *relating to the Earth*
- Agitation - *nervous excitement*
- Avarice - *extreme greed*
- Tumultuous - *a confused excitement*
- Uproarious - *provoking a loud sound or laughter*
- Brigands - *a member of a gang of thieves*
- Boisterous - *a noisy or energetic crowd or a loud storm*
- Onslaught - *a fierce attack*
- Despoil - *to steal violently*
- Irrepressible - *uncontrollable*
- Haggard - *looking exhausted*
- Irresistible - *unable to resist*

Stave Three

The Second of the Three Spirits. Ghost of Christmas Present visits Scrooge and shows him the happy holiday scenes in his town, including in the home of his clerk, Bob Cratchit. Despite being poor and having a crippled son (Tiny Tim), Cratchit and his family rejoice in the holiday spirit.

- Apprehensive - *hesitant or fearful*
- Spontaneous - *performed on impulse*
- Combustion - *burning*
- Consolation - *comfort after a disappointment*
- Predicament - *a difficult situation*
- Capacious - *roomy*
- Artifice - *a clever device to trick someone*
- Scabbard - *a sheath for a weapon*
- Jovial - *happy and friendly*
- Parapets - *a low protective wall*
- Apoplectic - *to be overcome with anger*
- Opulence - *to show extreme wealth*
- Demurely - *to do with modesty*
- Conspicuous - *to stand out*
- Heresy - *a belief that goes against the teachings of the Christian church*
- Penitence - *showing sorrow or regret*
- Rebuke - *sharp disapproval*
- Odious - *extremely repulsive*

Stave Four

The Last of the Spirits. The final spirit, the Ghost of Christmas Yet to Come, is a silent, dark figure, who shows Scrooge a dismal future and death of a greedy man who turns out to be Scrooge. His clerk, meanwhile, grieves the loss of his young son. Terrified, Scrooge begs the spirit for mercy and promises to change his life.

- Shroud - *a burial wrapping*
- Pendulous - *loosely hanging down*
- Excrescence - *an unpleasant addition*
- Latent - *hidden or dormant*
- Resolution - *a firm choice not to do something*
- Slipshod - *careless*
- Cesspools - *a storage unit for liquid waste*

Stave Five

The End of It. Scrooge wakes up with a new, joyful outlook on life, grateful for a second chance. He surprises everyone with his cheerful greetings. He donates money to the poor, sends a turkey to the Cratchit home, and attends his nephew's Christmas party. He further shocks the Cratchits by giving Bob a substantial raise and acting as a second father to Tiny Tim.

- Extravagance - *a lack of restraint in spending wealth*
- Illustrious - *well known or respected*
- Array - *a range of a type of thing*
- Feign - *to pretend to be affected by something*
- Malady - *an illness*

Geography -

Year 10 What is Urbanisation? week 1 & 4

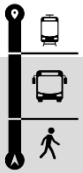
Urbanisation –The process of when an increasing percentage of a country's population living in towns and cities.
Mega cities – An urban area with a total population in excess of ten million people
Migration – When people move from one area to another

What is Urbanisation?
This is an increase in the amount of people living in urban areas such as towns or cities. In 2007, the UN announced that for the first time, more than 50 % of the world's population live in urban areas. Urbanisation is happening all over the word but in LICs and NEEs rates are much faster than HICs. This is mostly because of the rapid economic growth they are experiencing.

What causes of Urbanisation?
One cause is **Rural – Urban migration**, the movement of people from the countryside to cities.
There are **Push factors** forcing people out of villages including; natural disasters, war and conflict, drought, lack of employment.
There are **Pull factors** which attract people to cities including; better health care, access to water, access to education.
Another cause is **Natural increase,** where birth rate is higher than the death rate (more births than deaths each year = more people). Increased birth rate as more people are of child-bearing age, lack of contraception and family planning. There are less deaths as people have better health care, improved diet, access to medical care.
What is created? As cities grow eventually they will become megacities. Majority of megacities are located in either NEEs (Brazil) and LICs (Nigeria). The amount of megacities are predicted to increase from 28 to 41 by 2030.

Sustainable Urban Living week 2 & 5

Sustainable Urban living -A sustainable city is one where damage to the environment is limited.
Integrated transport When different transport methods connect together, journeys are smoother and public transport more appealing.
Urban regeneration The revival of old parts of urban areas.



Sustainable cities can be developed through,
Water conservation Reduce water use
Collect rainwater for gardens + flushing toilets.
Install water meters. Toilets that flush less.
Educating people on using less water.
Energy Conservation Use less and less non renewable.
Promoting renewable energy sources.
Making homes more energy efficient.
Encouraging people to use energy.
Create Green space Improves urban places for people who want to live there. Provide natural cooler areas for people. Reduces the risk of flooding from surface runoff.
Waste recycling Fewer resources are used. Less waste reduces landfill.
Collection of household waste.
More local recycling facilities.

Sustainable urban living example : Freiburg
Freiburg in west Germany. The city has a population of about 220,000. In 1970 it set the goal of focusing on sustainability. To achieve this; Rainwater is retained and reused.
Solar and wind energy 40% of the city is forested
Integrated transport system (ITS) linking public and private transport **Greenbelts** around a city where new building is controlled
Brownfield sites building on vacant or derelict land in the city **Urban regeneration** invest in old rundown areas by clearing and rebuilding.

Traffic management3 & 6

Traffic congestion Occurs when there is too great a volume of traffic for roads to cope with, so traffic jams form and traffic slows to a crawl.
Economic – linked to money and jobs
Social – linked to people their health and lifestyles.

Urban areas are busy places with many people travelling by different modes of transport. This has caused urban areas to experience different traffic congestion that can lead to various problems.
Environmental problems Traffic increases air pollution which releases greenhouse gases that is leading to climate change.
Economic problems Congestion can make people late for work and business deliveries take longer. This can cause companies to loose money.
Social problems There is a greater risk of accidents and congestion is a cause of frustration. Traffic can also lead to health issues for pedestrians.
Congestion solutions Widen roads- allows more traffic to flow easily.
Ring roads and bypasses to keep through traffic out of city centres.
Introduce **park and ride** schemes =reduce car use.
Encourage car-sharing schemes in work places.
Have public transport, cycle lanes & cycle hire schemes.
Congestion charges discourages drivers from entering the busy city centres.

Traffic management in Bristol UK.
In 2012 Bristol was the UK's 2nd most congested city. To change this there has been an ITS developed and an increase in cycle routes and an £80 million investment into buses.

Health and Social Care

L01: Communication

Verbal Communication skills:
- Tone
- Pace
- Clarity
- Empathy
- Para-verbal or paralinguistic

4 Main types of communication:
Verbal
Non-verbal
Written
Specialist

Written communication:
Care Plans
Instructions for operations

Non-verbal Communication Skills:
Body Language
Gestures
Facial Expressions

Specialist Communication:
Braille
Sign Language
Makaton
Voice Activated Software
Advocate
Interpreter

Factors influencing Effective Communication

Interpersonal

Personal Space
The area immediately around you
Maintaining distance will keep people comfortable

Relationships
Learning names
Being open and warm
Being positive
Being tolerant and inclusive

Body Language
Closed Body Language would shut down communication

Active Listening
Listening without thinking about their own answer at the same time.
Summarising what has been said shows this.

Cultural Differences
Some forms of non verbal communication have different meanings in other countries

Environmental

Heating and Ventilation
Right Temperature and being able to open windows

Room Layout
Think about the arrangement of furniture, seating and lighting

Lighting
Too bright and it can be a distraction
Too dim and it is difficult to read or lip read

Noise
Can be a distraction
Meetings need to be in a quiet area

Barriers to Effective Care

Barriers get in the way
They stop communication being effective
This can lead to problems:
- Anger caused by a lack of understanding or trust
- Fear of the practitioner from the client or patient
- Incorrect treatment being given because of the limited information that could be gathered to make the decision for the treatment.

Examples of barriers

1. Use of **patronising language** by the practitioner
2. **Tiredness** of the practitioner or the client
3. The use of **inappropriate language or inappropriate body language** by the practitioner
4. **Aggression** from the practitioner or the client
5. **Differences in languages spoken**
6. **Cultural differences** between the practitioner and the client
7. **Speech difficulties** of the client
8. **Noisy environments**

L01: Barriers

For each of the barriers:

Describe what it is.

Explain why it can be a problem

Describe how it can be overcome by referring to one of the 5 typical ways

5 Typical Ways to Overcome a Barrier:
1. Adapting the environment
2. Using a calm tone of voice
3. Training staff
4. Increasing the knowledge of the practitioners
5. Applying comunication skills and using personal qualities

History - The Issue of Civil Rights 1941 - 1970

Title of unit: The issue of civil rights 1941-1970

Definition of Era: At the start of this period there was a great deal of racial hatred and inequality towards black Americans. Discrimination continued into the 1940s despite contributions in WW II. However there was significant progress in the 50s and 60s as landmark legislation was passed and legal cases were won in the Supreme Court. Key individuals such as Martin Luther King led the way. However due to the slowness of change non-violent protest started to make way for more confrontational approaches as activists became disillusioned at the lack of economic opportunity.

KPI: Contribution of Black Americans in WW II

WW II highlighted the racism faced by many blacks who still had to join a segregated army. Black soldiers were treated far better in Britain however black soldiers were not allowed into combat with the marines and many were only allowed to be cooks and labourers. The Tuskagee airmen became the first black pilots and won great acclaim and the 761st Tank Battalion known as the Black panthers took part in the Battle of the Bulge. Discrimination was worst in the navy with Blacks often given the most dangerous jobs such as loading ammunition onto ships.

KPI: Education

The "separate but equal" policy that was enshrined in law from 1896 started to be challenged in the field if education. This "Jim Crow" Law came under attack because of its devastating impact on black prospects in employment, housing, access to the law and health. The Brown V Topeka case was an important landmark as it was a victory for the NAACP and showed that blacks could win in the Supreme Court. However no timescale was attached to it. President Eisenhower was forced to support the "Little Rock 9" in Arkansas 1957 with Paratroopers to help them get through a baying white mob.

Timeline dates	Timelines description
1941	America enters WW II
1945	Truman becomes President
1948	Desegregation of the armed force
1954	Brown Vs Topeka Case
1955	Montgomery Bus Boycott starts
1957	Little Rock High School
1963	Birmingham Campaign/March on Washington
1964	Civil Rights Act passed
1965	Malcolm X assassinated
1965	Selma March for Votes
1965	Voting Rights Act passed
1968	Martin Luther King Assassinated

As more men were conscripted in WW II more job opportunities arose at home. The *"Double V"* campaign was started to contrast the irony of fighting the racist Nazis at the same time as the situation in America. During the war 400,000 black Americans migrated from the South to the North and membership of the NAACP increased from 50,000 to 450,000.

Despite sympathy from President Truman and his Fair Deal, the situation facing blacks was still bad in the 1940s. Lynchings occurred and housing and employment were poorer than whites. Dixiecrats blocked much helpful legislation, although the GI Bill was open to black soldiers who had served in the war. Despite this there was growing confidence in the black community.

KPI: The Birth of the Civil Rights Movement

Segregation on transport was first challenged in Baton Rouge Louisiana but it was more famously challenged when Rosa Parks refused to move on 1st December 1955 in Montgomery Alabama. The boycott that followed led by Martin Luther King and the Montgomery Improvement Association showed the economic power of the black community if it worked together. It formed a blueprint for success that built on the achievements of the Topeka case. Despite arrests and violence the boycott was successful and now other groups like CORE and SNCC were inspired to lead sit ins in Greensboro and so called Freedom Rides that challenged segregation on interstate buses. The boycott was important because it brought King to national attention for his non-violent protests that focused attention and played well in the media.

Keywords and concepts	Definition
Legislation	Laws or Political Acts
Disenfranchise	Deny the right to vote
Landmark	Important
Segregation	Separate
Jim Crow	Laws of segregation
Uncle Tom	Insult – giving in to white attitudes
GI	General Infantry. US Army.
Dixiecrats	Southern Democrats
NAACP	Civil Rights Lawyers
Economic Pressure	Stop business working normally and encouraging them to change.
Lynching	Illegal killings.
Urban	City
Deep South	Most racist states.
Discriminate	Not treat people equally.

KPI: The Role of Martin Luther King

King was the leader of the Southern Christian Leadership Conference. King led a series of protests intended to provoke a violent response from racist white authorities. In Birmingham he was arrested and Eugene "Bull" Conner unleashed a very brutal police attack on the SCLC's youth movement. Bombs also killed several black children on their way to choir practice. Further protests at Albany and Selma also drew violent responses. The height of King's powers were seen at the March on Washington in 1963 where he delivered his famous "I have a dream" speech and he worked closely with Kennedy and Johnson on Civil Rights legislation. However after this his influence declined as he had less influence over Northern blacks where segregation was less obvious. When he was assassinated in 1968 there was outbreaks of violence

KPI: Malcolm X

As a figurehead for the Black Power movement. X was very different from King as he took a "by any means necessary approach". His "His Ballot or the bullet" speech seemed to show the stark choice between change and violence. X criticised non-violent approaches as weak and accused King of being an Uncle Tom figure. X was assassinated by his own Nation of Islam group when he attempted to form a breakaway group. However his teachings appealed to young urban blacks in a way that King did not

KPI: Civil Rights Legislation

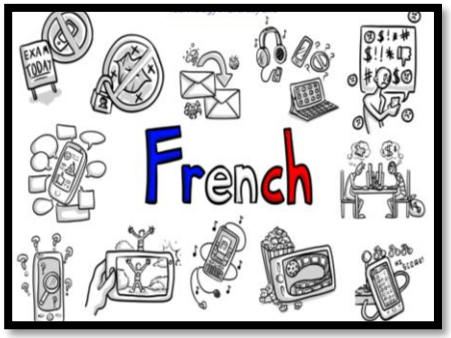
The Civil Rights Act of 1964 ended all forms of segregation. Any businesses that discriminated could not do business with the US government. The Voting Rights Act ended literacy tests, poll taxes and other forms of disenfranchisement that affected many black citizens. The legislation was passed mainly as a legacy to Kennedy following his assassination but was also a result of Johnson's skills as a politician as was able to pressurize southern dixiecrats.

KPI: Black Power

Race riots in Watts, LA in 1965 highlighted the continued economic hardships faced by blacks. Further riots in many US cities as result of the disproportionate number of blacks dying in Vietnam and police brutality led to the Kerner Report in 1968 which highlighted racism that was deeply embedded in US society. However most of the report's findings were ignored. Further protests by the Black Panthers, the more militant leader of SNCC Stokely Carmichael and at the 1968 Mexico Olympics also failed to make the changes that King had achieved in the late 50s and early 60s. Partly this showed the difficulties that the Civil Rights Movement faced in changing ingrained racist attitudes.

Languages – French : La Technologie

1	Pendant mon temps libre	During my free time
2	je passe beaucoup de temps sur mon ordinateur et	I spend a lot of time on my computer and
3	j'utilise mon portable régulièrement	I use my mobile phone regularly,
4	pour envoyer des emails et	(in order) to send emails and
5	pour partager des photos.	(in order) to share photos.
6	Néanmoins,	Nevertheless
7	il faut toujours être prudent,	you have to always be careful,
8	car il est très facile de	because it is very easy to
9	devenir accro.	become addicted (hooked).
10	Avec les réseaux sociaux	With social media
11	il y a bien sûr	there are of course
12	des avantages et des inconvénients.	advantages and disadvantages.
13	Auparavant je ne m'en servais pas beaucoup	Beforehand I didn't use to make use of them a lot
14	mais maintenant	but now
15	j'ai du mal à imaginer ma vie sans les réseaux sociaux.	I find it hard to imagine my life without social media.
16	Un portable est, pour moi, absolument nécessaire	A mobile phone is for me absolutely necessary
17	car je peux faire des achats en ligne	because I can make online purchases
18	et télécharger de la musique.	and download music.
19	Avec mon portable	With my phone
20	je peux aussi envoyer des textos à mes amis toute la journée,	I can also send texts to my friends the whole day,
21	mais la plupart du temps	but most of the time
22	je l'utilise comme appareil photo.	I use it as a camera.



Expressing pros and cons

- L'inconvénient c'est que...
  The disadvantage is...
- L'avantage c'est que...
  The advantage is that...
- Ce qui est bien c'est que...
  What's good is...
- Ce qui est inquiétant c'est que...
  What's worrying is...
- Je suis absolument pour...
  I am absolutely for...
- Je suis absolument contre...
  I am absolutely against...
- Ça m'aide avec...
  It helps me with...
- Ça me permet de...
  It allows me to...

Use different tenses

- J'ai regardé I watched
- J'ai vu I saw
- J'utilisais I used to use
- J'ai fait mes devoirs sur l'ordinateur.
  I did my homework on the computer.
- Je me servais beaucoup de mon portable. I used to use my mobile phone a lot.
- Si j'avais su que c'était si cher, je ne l'aurais pas acheté. If I'd have known that it was so expensive, I would not have bought it.
- Je me servirai moins souvent de mon portable.
  I will use my mobile less.
- Je voudrais un smartphone.
  I would like a smart phone
- J'achèterai une tablette.
  I will buy a tablet.

Scan me

Maintenant testes-toi sur Quizlet:
https://quizlet.com/_647714

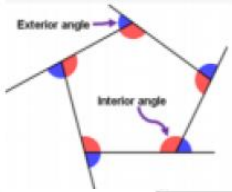
Maths - Foundation: Angles

KEYWORDS
polygon, interior, exterior, tessellation, parallel, perpendicular, corresponding, alternate, co-interior, isosceles, scalene, clockwise, anticlockwise, obtuse, acute, reflex

KEY FACTS

Circumference	The distance around the edge of the circle
Radius	The distance from the centre of the circle to the edge of the circle
Diameter	The distance across the circle from edge to edge, going through the centre
Tangent	A straight line that touches the circle
Chord	A line that touches each edge of the circle but does not go through the centre
Segment	The area created between the circumference and a chord
Arc	Part of the circumference
Sector	A slice of the circle - looks like pizza!

Interior angle + Exterior angle = 180 degrees (angles on a straight line)



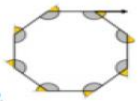
Exterior Angles

The sum of exterior angles in any shape (or polygon) equal 360°

Exterior angle
For REGULAR polygons only with n sides:
EXTERIOR ANGLE = $\frac{360^o}{n}$

Interior angle
For REGULAR polygons only with n sides:
INTERIOR ANGLE = $\frac{(n-2)\times 180^o}{n}$

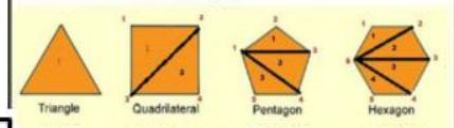
Example: REGULAR Octagon



Method 1 (using formulae)
n = 8
Sum of Exterior angles = **360°**
Exterior angle = 360° ÷ 8 = **45°**
Sum of Interior angles: (8 – 2) x 180° = **1080°**
Interior angle: 1080° ÷ 8 = **135°**

Method 2 (using angle facts)
n = 8
Sum of Exterior angles = **360°**
Exterior angle = 360° ÷ 8 = **45°**
Interior angle + Exterior angle = 180°
Interior angle = 180° – 45° = **135°**
Sum of Interior angles = 8 x 135° = **1080°**

Sum of Interior angles



In a triangle (n= 3) = 180°
In a square (n = 4) = 2 triangles
= 2 × 180° = 360°
In a Pentagon (n = 5) = 3 triangles
= 3 × 180° = 540°
In a Hexagon (n = 6) = 4 triangles
= 4 × 180° = 720°

For REGULAR polygons only with n sides
SUM OF INTERIOR ANGLES = $(n-2)\times 180^o$

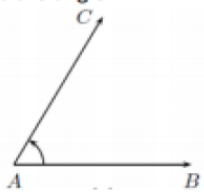
Key Words

Parallel: Two or more lines that never meet. The lines are annotated with arrows on a diagram.

Perpendicular: Two lines that intersect at 90°.

Angle and line notation

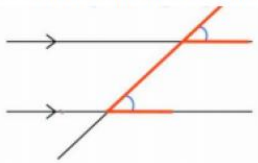
Angle CAB. Three letters are used to notate an angle, the middle letter is the angle.



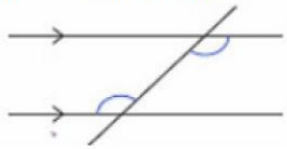
A line is notated by two letters. Line AB is the line between A and B.

A B

Corresponding angles are equal

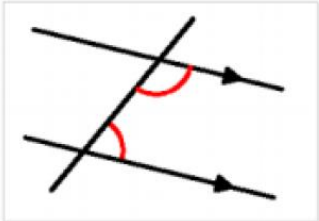


Alternate angles are equal

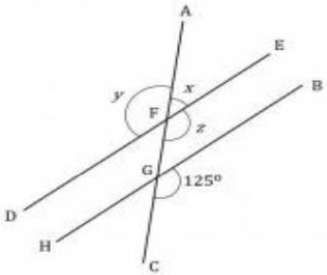


Vertically opposite angles are equal

Co-interior angles equal 180°

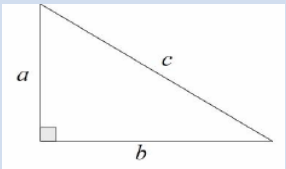
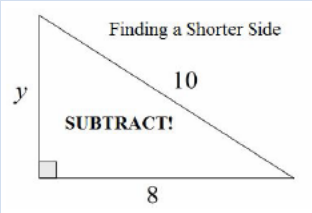
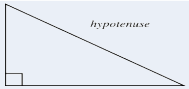
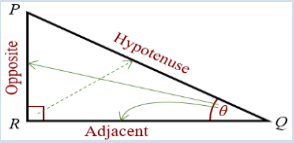
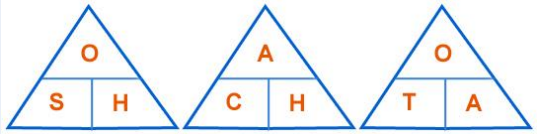
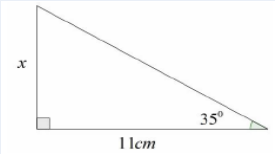
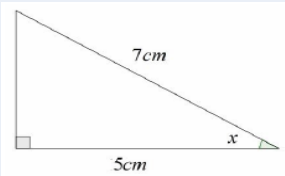


Example



z = 125° as corresponding angles are equal.
y = 125° as vertically opposite angles are equal.
x = 55° because angles on a straight line sum to 180°.

Maths - Higher: Trigonometry

Topic/Skill	Definition/Tips	Example
1. Pythagoras' Theorem	For any **right angled triangle**: a2+b2=c2  Used to find **missing lengths**. a and b are the shorter sides, c is the **hypotenuse** (**longest side**).	 $a = y,\ b = 8,\ c = 10$ $a^2 = c^2 - b^2$ $y^2 = 100 - 64$ $y^2 = 36$ $y = 6$
2. Hypotenuse	The **longest side** of a **right-angled triangle**. Is always **opposite** the **right angle**.	
3. Adjacent	**Next to**	
4. Trigonometric Formulae	Use **SOHCAHTOA**. $\sin\theta = \frac{O}{H}$ $\cos\theta = \frac{A}{H}$ $\tan\theta = \frac{O}{A}$  When finding a missing angle, use the 'inverse' trigonometric function by pressing the 'shift' button on the calculator. **KEY VOCABULARY** Pythagoras' Theorem, sine, cosine, tangent, trigonometry, opposite, hypotenuse, adjacent, ratio, elevation, depression	Use 'Opposite' and 'Adjacent', so use 'tan'  $\tan 35 = \frac{x}{11}$ $x = 11\tan 35 = 7.70cm$ Use 'Adjacent' and 'Hypotenuse', so use 'cos'  $\cos x = \frac{5}{7}$ $x = cos^{-1}\left(\frac{5}{7}\right) = 44.4°$

Music

The Music Industry EXTERNAL EXAM
Part 1: Understanding different types of organisations that make up the music industry

- Venues and live performance
- Health, Safety and Security at venues
- Production and promotion
- Service companies and agencies
- Unions
- How organisations interrelate and why these relationships are important

Introducing Music Recording
Part 1: Planning a Recording Session

- Equipment
- Recording Sessions
- Health & Safety

Part 2: Use Recording equipment safely to produce multi-track recording

- Recording audio
- Mixing down the multi-track

Part 2: Understand jobs roles in the Music Industry

- Performance and Creative Roles
- Management and Promotion roles
- Recording Roles
- Media and other roles
- How and Why workers are employed in the industry
- Getting a break and starting out
- Importance of individual roles and responsibilities
- How individual roles and responsibilities interrelate
- How the Industry relies on entrepreneurs, the self-employed and small enterprises
- How to get paid

Link to :- Music Industry facts every musician needs to know :-
https://www.thebalancecareers.com/music-industry-facts-every-musician-needs-to-know-2460726

Setting up a recording Session
https://www.izotope.com/en/blog/music-production/18-tips-for-running-a-great-recording-session.html

P4L – Work related learning

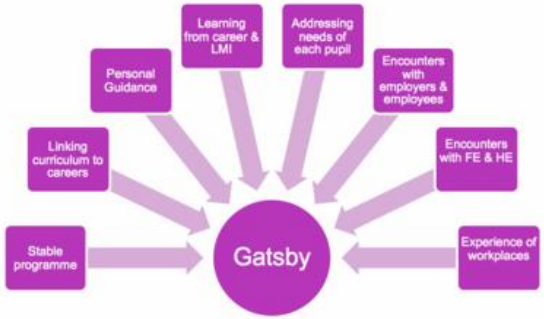
Living Independently

Key concepts/questions:

What are the monthly fixed costs that would have to be paid every month?
What are the variable costs that would have to be paid for every month?
How much money would I need to earn, to live independently in Plymouth?

KEY TERMS:

Budget - allow or provide a particular amount of money.
Income - money received, normally for work done.
Expenditure – an amount of money spent.
Fixed costs – money spent that is a constant amount, usually paid out every month.
Variable costs – money that is spent, but varies in the amount from month to month.
Council Tax - a tax on households determined by a local council, based on the estimated value of the property and the number of people living in it.
Utility bills – the amount a household or office is expected to pay for electricity, water and/or gas each month.
P.C.M. – per calendar month.
A.P.R. – annual percentage rate.
Debit card - a card allowing the holder to transfer money electronically from their bank account when making a purchase.
Credit card – a card that is issued by a bank that allows you to buy goods on credit (a type of loan).
Direct debit – an agreement made with a bank that allows a company to transfer money from a person's bank account on agreed dates, usually to pay bills.
Standing order - an instruction to a bank by an account holder to make regular fixed payments to a particular person or organisation.
Credit score – a score based on how much debt you have and how you are managing that debt.



NOTES:

Applying for Work

Key concepts/questions:

What is a CV for?
What is included in a CV?
When would I need a CV?
What is a personal statement?
Why do I need a personal statement?
What is a covering letter?
How would I apply for part-time work?
What are the health and safety laws I should know about when working for someone else?

KEY TERMS:

CV – Curriculum Vitae. A brief account of a person's education, qualifications, and previous occupations, typically sent with a job application.

Personal Statement - a written description of someone's skills, personal qualities, achievements, interests, included as part of an application for a job or a place at university or college.

Achievement – what you can show you have improved on.

Skill – something you can learn to do, such as work in a team.

Personal Quality – how you come across or behave, such as being friendly.

Health and Safety – regulations (rules) and procedures intended to prevent accident or injury in workplaces or public environments.

Physical Education - Badminton

Kit Needed

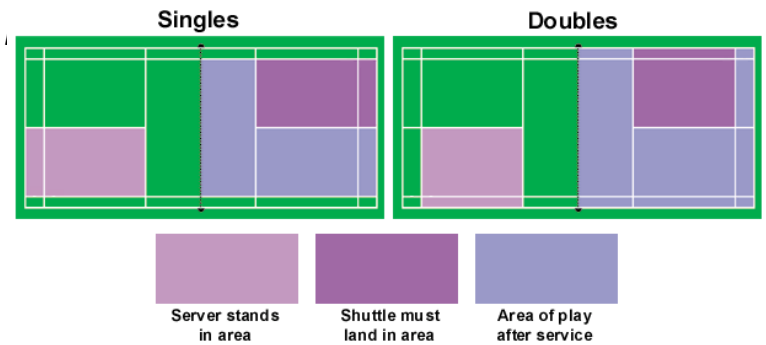
- Indoor trainers, white socks, short sleeved PE top and black Eggbuckland shorts, skort or leggings

Equipment

- Badminton rackets, shuttles, nets, posts and bases

5 Key Rules

- Point is scored if opponent hits shuttle to land in your court
- Point is scored if opponent hits shuttle out of playing area or into net
- Serve must be underarm and served across to diagonal box
- Playing area for singles is long and narrow. Playing area for doubles is short and wide – use side tramlines for doubles.
- Serve from the left on an odd score and right for an even score



Serve

- Starts the games
- Underarm
- Opposite foot forward to racket hand
- Hold shuttle in front at waist height and above racket head
- Flick wrist in direction and over the net

Smash

- To win points through attacking play
- Sideways body – move behind shuttle
- Non Racket arm high (point at shuttle)
- Bend racket arm (scratch back)
- Hit shuttle at highest point whilst extending arm (whip shot)
- Aim to hit hard downward to opponents back court

Basic body position

Overhead clear

- To create space, force opponent to back court
- Basic sideways body – move under shuttle
- Non Racket arm high (point at shuttle)
- Bend racket arm (scratch back)
- Hit shuttle at highest point whilst extending arm
- Aim to hit shuttle to the back of court over opponents head

Drop shot

- To create space at back of court and force opponent to front court
- Basic sideways body position – get behind shuttle
- Raise your non-racket arm and point at the shuttle
- Contact the shuttle as high as possible and out in front of your body.
  Straighten your elbow as you hit the shuttle.
  Push the shuttle as you hit it – NO wrist whip
- Aim to hit it to the front court

Physical Education - Table Tennis

Kit Needed

- White trainers, White socks, short sleeved PE top and black Eggbuckland shorts, skort or leggings

Equipment

- Table Tennis Tables, Bats, Balls and Nets

5 Key Rules

- The ball must hit your opponents' half of the table to win a point
- When serving you must hit the ball and the ball must bounce on your side of the table before going over the net and then bouncing on your opponents side
- Play on if it hits or clips the net. If it happens on serve and then goes in you play a 'Let'. If it happens on serve and goes out you lose the point
- Games go to 11 points
- The ball must be thrown up 15cm before contact is made with the ball for a service to be legal

Key Terms

- Service – The way you start a rally
- Topspin – Attacking shot which creates forward spinning motion on the ball
- Backspin – Defending shot which creates backward spinning motion on the ball
- Let – A term which means the point is replayed
- Forehand – For a right hander the racket starts on the right side of the body, makes contact and follows through to the left side

Forehand

- Opposite foot slightly in front of the other
- Side on
- Knees bent
- Strong base position
- Rotate at the hip

Backhand

- Feet shoulder width apart and almost level
- Parallel to the table
- Knees bent
- Strong base position
- Flex and extend in the shot

Basic body position

Spin

- A shot where you can put different types and amount of rotation on the ball to enable different tactics eg

Topspin – attacking shot as ball dips on to table
Backspin – defensive as makes opponent hit the ball down in to net

Serve

- Starts the game and each point
- Ball leaves hand, is hit into your side of the table first then bounces over the net and onto opponents side
- Various spin can be used

Physical Education - Keywords

Table Tennis

Keyword	Definition
Backhand	A shot done with the racket to the left of the elbow for a righthander, the reverse for a lefthander.
Backspin	Backward spin placed on the ball. Also called Underspin.
Block	A quick, off the bounce return of an aggressive drive done by just holding the racket in the ball's path.
Chop	A chop is a heavy underspin shot. It is usually executed away from the table and below the table-top. A chop forces the ball to drop downwards when it hits an opponent's paddle.
Footwork	How a person moves to make a shot.
Forehand	Any shot done with the racket to the right of the elbow for a righthander, the reverse for a lefthander.
Let	Service ball hitting the net or a distraction that causes the point played over.
Rally	The period in which the ball is in play.
Spin	The rotation of a ball. Topspin: Spin placed on a ball to allow it to curve down onto the table.
Topspin	Spin placed on a ball to allow it to curve down onto the table. The ball will kick forwards.

Badminton

Keyword	Definition
Shuttlecock	The object that is hit to play the game.
Court	The playing area.
Racket	Piece of equipment you use to hit the shuttlecock.
Serve	A type of shot that starts the game.
Overhead Clear	A type of shot that is aimed to the back of the court.
Smash	A type of shot that aims to win a point.
Backhand	A shot that is led by the back of the hand.
Forehand	A shot that is led by the palm of the hand.
Baseline	Back boundary line at each end of the court, that runs parallel to the net.
Tramlines	The two parallel side lines and the two backlines are called tramlines.
Rally	This occurs when the players hit the shuttlecock back and forth several times before one side scores a point.

Fitness and Multi-Skills

Keyword	Definition
Speed	The ability to move the whole body or body parts quickly. Uses 'fast twitch muscle fibres.
Strength	The ability to apply force against an object or resistance. Use 'fast twitch' muscle fibres.
Power	The ability to apply strength/force quickly. Uses 'fast twitch' muscle fibres. Calculate by measuring 'force x speed'.
Endurance	The ability to maintain high levels of exercise for a sustained period of time.
Cardio-vascular	A combination of heart and lungs. Cardio-vascular fitness is the ability to sustain low/moderate exercise intensity by supplying oxygen to the muscles.
Skill	The ability to preform movements and techniques with control and precision.
Agility	The ability to change direction of the whole body or body parts with speed.
Balance	The ability to maintain the 'centre of gravity' within the base of support without falling over or stumbling.
Co-ordination	The ability to control one or more body parts at the same time.
Reaction Time	The speed with which a person can react to a stimulus or situation.

Physical Education – BTEC Sports : Unit 1

Physical Fitness

Aerobic Endurance
The ability of the cardiorespiratory system to work efficiently, supplying nutrients to the working muscles.
This is needed for long distance events.
What is the cardiorespiratory system?
✓Uptakes oxygen from air breathed in
✓Transports oxygen around body to working muscles
✓Removes waste products such as carbon dioxide

Muscular Endurance
The ability of muscles to work repeatedly against a light to moderate load without getting tired.

Speed
Accelerative speed: This is the speed generated in order for a performer to be at their top speed. Eg- long jump run up
Pure speed: This is needed for events that are won by achieving the quickest time. Eg- 100m sprint
Speed endurance: This is an athlete's ability to sustain speed over a long period of time with short recovery periods. Eg- a footballer

SPEED (m/s) = DISTANCE TRAVELLED / TIME TAKEN

AEROBIC- in the presence of **oxygen** (long distance events)
ANAEROBIC- **without oxygen** (short distance or power events)

Muscular Strength
The maximum force that can be generated by a muscle or group of muscles. Weights will be heavy and therefore repetitions are low.

Body Composition
This is the combination of muscle, fat and bone.

EcTomorph- **T**all and **T**hin
EnDomorph- Short and **D**umpy
Mesomorph- **M**uscular

Flexibility
The ability to move a joint fluidly through a complete range of movement.
Some sports require all round flexibility whereas some sports require flexibility at specific joints.

Coordination
The ability to use body parts together accurately.
This is needed in most sports.
HAND-EYE coordination
FOOT-EYE coordination
HAND-HAND coordination

Unit 1 Learning Aim A- Components of Fitness

@LWarnerPE

Components of physical fitness	Components of skill related fitness
Aerobic endurance	Agility
Muscular endurance	Balance
Flexibility	Coordination
Speed	Power
Muscular strength	Reaction time
Body composition	

Skill-Related Fitness

POWER = STRENGTH x SPEED

Power
The ability to use strength at speed. Therefore the faster or stronger a motion, the more powerful it will be.

Agility
The ability to change direction quickly.
Eg- rugby players

Balance
The ability to maintain the centre of mass over a base of support.
STATIC BALANCE- maintaining a balance whilst stationary. *Eg- handstand*
DYNAMIC BALANCE- maintaining a balance whilst in motion.
Eg- cartwheel

Reaction time
The time taken for a performer to respond to a stimulus. *Eg- sprinter*

Physical Education – BTEC Sports : Keywords

Unit 1 - Exam Command words

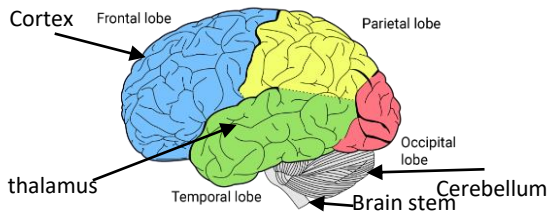
Word	Definition
Assess	Requires reasoned argument of factors to reach a judgement regarding their importance/relevance to the question context. For example, 'Assess the relative importance of….'
Analyse	Break something down into its component parts; this could be in relation to movement analysis.
Calculate	Requires computation in relation to fitness data.
Classify	Requires to group or place on a scale based on characteristics/analysis of characteristics.
Complete	Required to add information based on a stimulus/resource. This could be to complete a table, graph, chart or missing word/phrase from a sentence/statement.
Define	Required to give the meaning or definition of a word/term.
Describe	Give an account of something without explanation. Short factual answer.
Discuss	Requires to explore the issue/situation/problem that is being assessed in the question context, articulating different or contrasting viewpoints, for example, advantages and disadvantages.
Examine	Requires a justification/exemplification of a point based on some analysis or evaluation within the response. For example, 'Examine the role of the first class lever system….
Explain	Requires a justification/exemplification of a point. The answer must contain some linked reasoning. For example, the format of the response may be 'fact… because… therefore….'

Unit 2 – Practical Sport

Key Word	Definition
Responsibility	the state or fact of having a duty to deal with something or of having control over someone.
Regulations	a rule or directive made and maintained by an authority.
Competitive	relating to or characterized by competition.
Communication	the imparting or exchanging of information by speaking, writing, or using some other medium.
Discrete skills	A skill containing a single unit of activity with a definite beginning and end.
Continuous skills	Continuous skills have no obvious beginning or end.
Serial skills	Serial Skills are a group of discrete skills strung together to make a new and complex movement.
Decision Making	the action or process of making important decisions.
Positioning	put or arrange (someone or something) in a particular place or way.
Technique	a way of carrying out a particular task, especially the execution or performance of a sporting activity.

Psychology - Development

Early brain development



Brain stem: connects brain to spinal cord and controls autonomic functions eg breathing.
Cerebellum: co-ordinates sensory and motor; one of the last parts of brain to reach maturity.
Thalamus: located deep inside brain; acts as information hub, receives and sends signals around brain.
Cortex: outer layer of brain divided into 4 lobes; thinking and processing happens here.

Brain development in the womb

Week 3 – neural plate becomes tube
Week 4 – neural tubes begin to divide
Week 15 – cerebellum has formed
6 months – brain is fully formed

Piaget Theory

Changes in thinking over time. Children think differently to adults. Different kinds of logical thinking occur at over time.

Sensorimotor stage: 0-2 years. Learn to co-ordinate sensory and motor skills. Object permanence develops

Pre-operational stage: 2-7 years. Can't think in a consistently logical way. Egocentric and lack conservation.

Concrete operational: 7-11 years. Most children can conserve at 7 and show less ego centrism.

Formal operational: 11+ years. Children can draw conclusions about abstract concepts and form arguments.

Key Terms

Schema	Mental structures containing knowledge, schemas develop further through accommodation and assimilation.
Assimilation	Add new information to an existing schema.
Accommodation	Receiving new information that changes our understanding so a new schema is formed.
Conservation	The ability to understand that although appearance of material changes the quantity stays the same.
Egocentrism	Seeing the world from one's own point of view and not being able to see it from others.

Role of nature vs nurture

Nature characteristics and behaviour are are inherited.

Nurture our characteristics and behaviour are influenced by environment.

Brain forms due to nature but environment has big influence on its development.

Smoking during pregnancy can decrease size of babies' brains.
Infections in the womb can lead to hearing loss.
Babies in womb learn to recognise mother's voice.

Twin studies used to provide evidence for both sides of debate – identical twins share same DNA , similarities will be down to nature, differences nurture.
E.g IQ study.

Nature evidence – babies can recognise faces and cry from birth implies nature.

Key studies testing Piaget

Hughes – Policeman Doll Study
Aim: To see if children are egocentric earlier than Piaget suggested.
Method: 3½ - 5 year old children asked to hide a boy doll from two policeman dolls using partition walls. Practised with one doll first.
Results: 90% were able to hide the doll away.
Conclusion: Children can conserve earlier than the age of 7. Piaget underestimated the abilities of children.

+ three mountains task research supports their findings
+
-Task involved hiding from policeman lacks ecological validity
-Children in unfamiliar setting and with unfamiliar adults

McGarrigle and Donaldson – Naughty Teddy
Aim: To see if children can conserve at an earlier stage than Piaget found if change is accidental.
Method: Children aged 4- 6 years shown two rows of counters. Teddy messes up one row of them. Child asked if the rows were the same.
Results: 62% of children stated the rows were same. Only 16% did in Piaget's experiment
Conclusion: if the change to materials seems accidental children under the age of 7 can conserve.

+ other researchers findings also supports
+ shows that children can covserve earlier than Piaget said
-- sample only used children from one primary school
- Results in other research not as high as they found

Dweck's mindset theory

Growth mindset: belief that ability comes from hard work and can increase.

Fixed mindset: belief that ability is genetic and unchanging.

Our assumptions affect our success. Success it is due to effort not talent. When faced with a challenge fixed mindset give up quickly, growth mindset keep trying. Fixed mindset sees failure as lack of talent, growth mindset sees failure as an opportunity to learn.

Role of praise: **Person** focuses on the ability. **Process** focuses on effort. Students who get person praise feel that success is beyond their control.
Role of self-efficacy: understanding your own abilities. Higher self efficacy results in greater effort, performance and resilience. Self efficacy increases or decreases future success.

Evaluation: + Research support for her theory
+ Real world application e.g. in sports seeing failure as a lack of effort rather than talent motivates future effort
- Praising effort can still lead to completing task for approval, and discourages independent behaviour.

Application to education

Individual learning: children go through stages at different rates, allow child to discover the answers themselves

Readiness: Can only teach something when child biologically ready.

Real world objects: Children must be given actual objects to allow discovery.

Learning styles

Verbaliser: focus on words. Processing by hearing or reading words and talking about it.

Visualiser: focus on pictures. Processing by seeing, use of diagrams, maps and think using pictures.

- Too many learning styles
- No supporting evidence

Willingham's learning theory
Criticises learning styles theories as they aren't evidence based. Teaching and learning can be improved through the following ways
Praise: praising effort should be unexpected. Praise before a task led to less motivation.
Memory and forgetting: forgetting happens because of lack of cues, practising retrieving information from memory
Self-regulation: self control (delay gratification)
Neuroscience: brainwaves in dyslexia are different. Earlier intervention would increase progress.

Religious Studies - Religion, crime and punishment

Good & evil actions and intentions

Some people suggest that those who commit the worst crimes are evil.

But where does evil come from?

Christianity: Evil is seen as the abuse of the **free will** God gave to humans. In order to be able to appreciate good, then evil has to exist. Most Christians believe in a figure called **the devil** or Satan. So, evil is a combination of internal and external factors.

Islam: The **Qur'an** says there is a devil who was an angel. Iblis was expelled from paradise because he refused to bow to Adam. Iblis continually tempts and punishes humans to be wicked. Evil is a mix of powerful evil being and the weakness of humans.

3 aims of punishment

Retribution: is the least positive of the 3 aims of punishment. It means that society, on behalf of the victim, is getting its own back on the offender. In the Old Testament it is referred to as *lex talionis* (the law of retaliation). **"An eye for an eye, a tooth for a tooth"**

Deterrence: This is the belief that if offenders are seen to be punished for wrongdoing, then this may 'put off' others from committing that offence. The offender themselves might also be put off from reoffending.

Reformation: This is the aim of punishment most Christians prefer because it seeks to help offenders by working with them to help them understand that their behaviour is harming society. It is hoped that offenders will change their attitudes and become responsible, law-abiding members of the community.

Reasons for crime & types of crime

Causes of crime include: *upbringing, mental illness, poverty, opposition to existing laws, greed/hate, or addiction.*

There are 3 key **types** of crimes: *Crimes against the **person** (e.g. murder); Crimes against **property** (e.g. burglary); Crimes against the **state** (e.g. terrorism).*

***St Paul** tells Christians to "obey the laws of the land"*

Suffering

For many people, suffering is an unfortunate part of living. It may be caused by something natural, such as an illness, or it may be due to how people have behaved. Whatever the cause, Christians believe they should try to help others who are suffering. Christians feel that they should follow the example of Jesus, who helped many whom he saw were suffering, and who taught that those who believe in God should help those who suffer.

Heller Keller was a Christian writer and activist who became deaf and blind when she was only 19 months old. She said *"We are never really happy until we try to brighten the lives of others".*

Treatment of criminals

Christians do not disagree with discipline. They see a positive need for it: ***"He who spares the rod hates their children, but the one who loves their children is careful to discipline them".*** However, they may question the method used since Jesus' teachings on love and caring for people rule out any physical punishment. Instead, Christians focus on positive sanctions that help offenders to realise the error of their ways and reform. Jesus always treated people with respect, and Christians believe they should follow his example.

Corporal punishment: to punish the offender by causing physical pain. It is illegal in the UK but allowed in some other parts of the world. For example some Muslim countries such as Iran and Saudi Arabia allow caning as punishment for offences such as gambling and sexual promiscuity.

Community service: offers offenders a chance to make up for what they have done and receive help in reforming their behaviour. Christians are in general agreement that it is a suitable punishment for fairly minor offences.

"Mutual respect for and tolerance of those with different faiths and beliefs, and for those without faith"

The death penalty

Abolished in the UK in 1965 and is now illegal in many EU countries.

The Principle of Utility = an action is right if it promotes the maximum happiness for the maximum number of people.

The sanctity of life = God gave life, so only He has the right to take it away.

For	Against
• It is a justifiable retribution for serious crimes • It is a deterrent • It gives the victim's family a sense of justice	• Only God has the right to take life • Jesus taught a message of love and forgiveness • It is hypocritical

Forgiveness

Forgiveness is a core Christian belief and one Jesus emphasised in his teachings.

Christians are expected to be forgiving towards those who wrong them, if they expect to be forgiven themselves: ***"Forgive us our sins, as we forgive those who sin against us."***

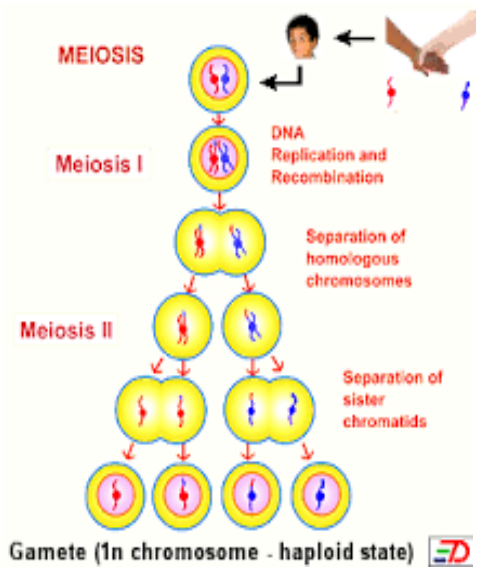
Many Christians would argue that forgiveness is not a replacement for punishment.

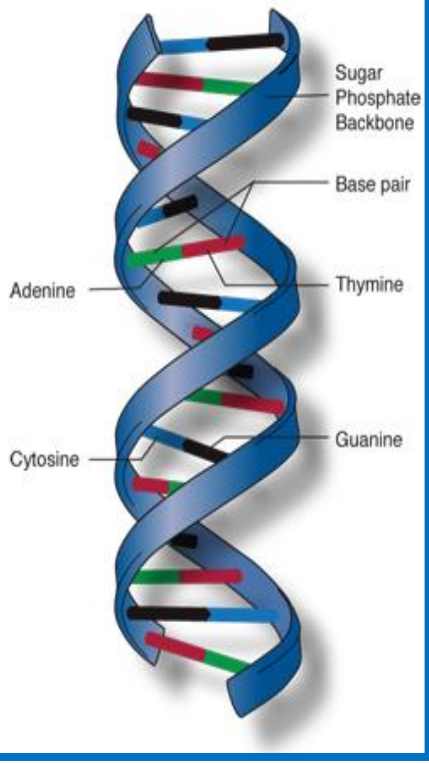
During his ministry Jesus was asked how many times you should forgive someone who wrongs you and he replied ***"I tell you not seven times, but seventy-seven times"***

Science - Inheritance, Variation and Evolution

Key Terms	Definitions
Asexual reproduction	Reproduction involving one parent, giving genetically identical offspring
Binary fission	The asexual reproduction of bacteria
Selective breeding	A process by which humans have chosen organisms to breed together to develop desirable characteristics
Artificial selection	Another name for selective breeding
Self-pollination	When pollen from one plant fertilises ova from the same plant
Cross-pollination	When pollen from one plant fertilises ova from a different plant
Meiosis	Cell replication that produces four non-identical haploid cells from one diploid cell
Menstruating	Having a period as part of the menstrual cycle
Genome	One copy of all DNA found in your diploid body cells
DNA fingerprinting	The analysis of differences in DNA to identify individuals
Evolution	The theory first proposed by Charles Darwin that the different species found today formed as a result of the accumulation of small advantages that were passed on through generations
Double helix	The characteristic spiral structure of DNA
Nucleotide	A DNA base together with a sugar and a phosphate molecule that make up the backbone of the double helix
Transcription	The process of making an RNA copy of a gene sequence of DNA
Translation	The process of making a protein from an RNA copy of a gene sequence of DNA
Mutation	A permanent change to the DNA, which may be advantages, disadvantageous or have no effect
Ionising radiation	UV rays, x-rays and gamma rays that can cause mutations to DNA

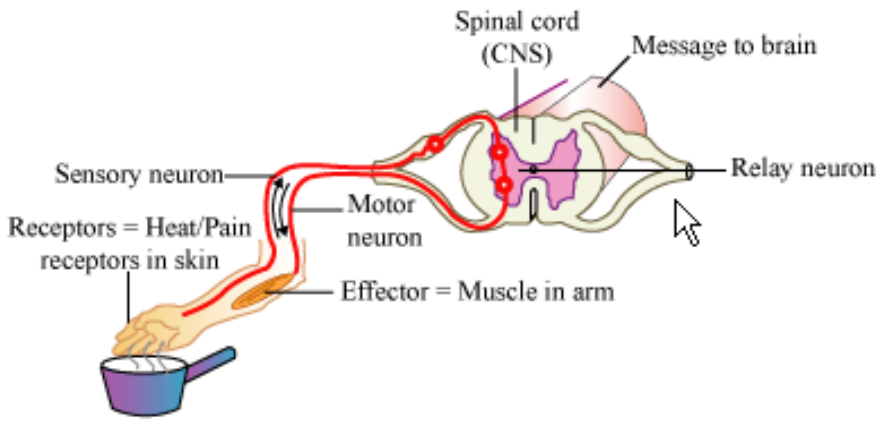
Alleles	Two versions of the same gene, one from each parent
Genotype	The genetic make-up of an organism represented by letters
Phenotype	The physical characteristics of an organism
Punnett Square	A grid that used for determining the chance of inheritance
Cystic Fibrosis (CF)	A genetic disorder in which sufferers inherit recessive alleles from both parents and have excess mucus in their lungs





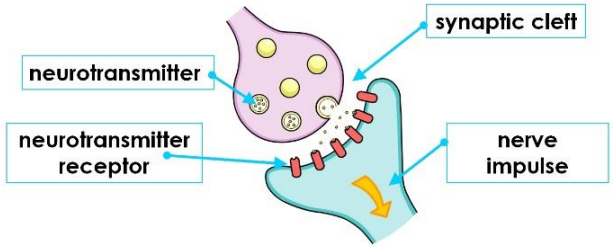
Science - Homeostasis and Response (1 of 3)

Key Terms	Definitions
Homeostasis	The maintenance of a constant internal environment.
Central nervous system (CNS)	The brain and spinal cord. Sometimes referred to as the coordinator.
Neurones	Nerve cells – they link receptors and effectors to the CNS. Sensory neurons carry impulses from receptors to the CNS, relay neurons carry an impulse within the CNS and motor neurons carry the impulse from the CNS to an effector.
Receptor	A cell or group of cells that detect a change and generate a nervous impulse.
Effector	A muscle or gland that brings about a response.
Synapse	A gap between neurons.
Neurotransmitters	Chemicals which diffuse across the synapse and initiate a nervous impulse in the next neurone.
Reflex response	An automatic response that you do not think about.
Reflex Arc	The pathway of neurons in a reflex arc.



3. DIFFUSION AND NERVES IMPULSES

A **synapse** is a junction between two neurones across which electrical signals must pass.

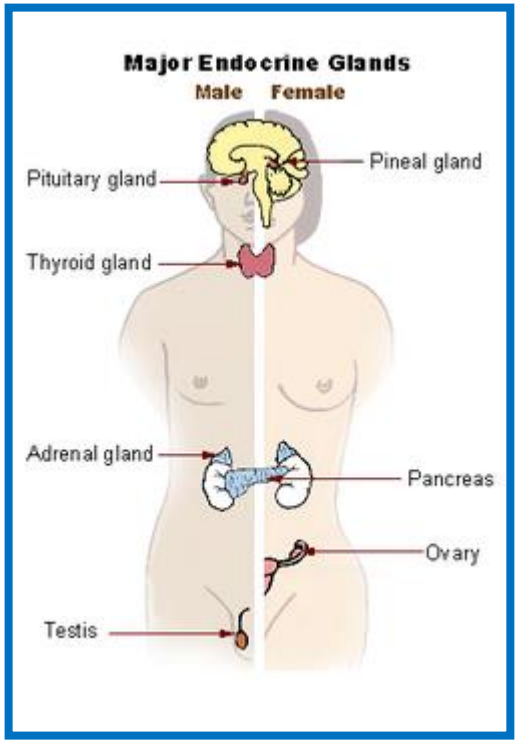


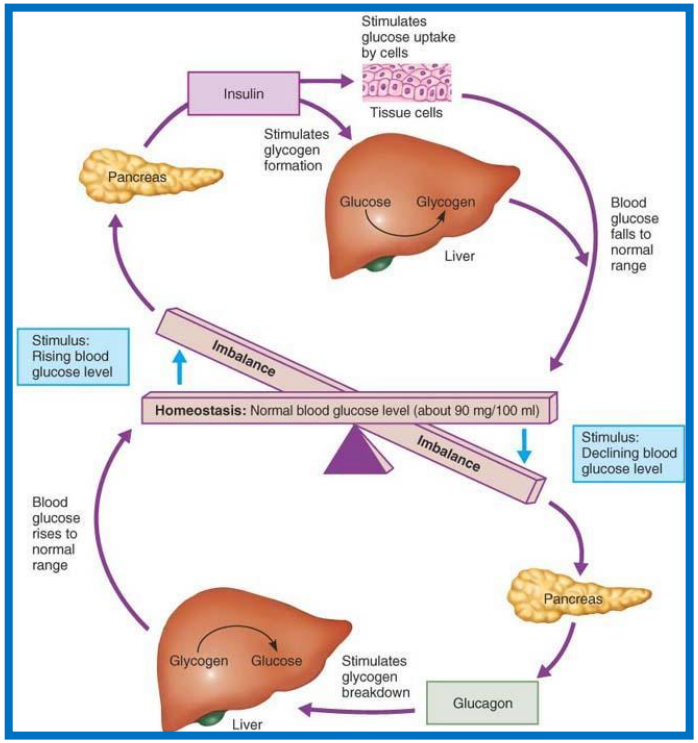
Neurotransmitter molecules diffuse from vesicles towards the neurotransmitter receptors, moving from an area of high concentration to low concentration.

Stimulus → Receptor → Sensory neurone → Relay neurone → Motor neurone → Effector → Response

Science - Homeostasis and Response (2 of 3)

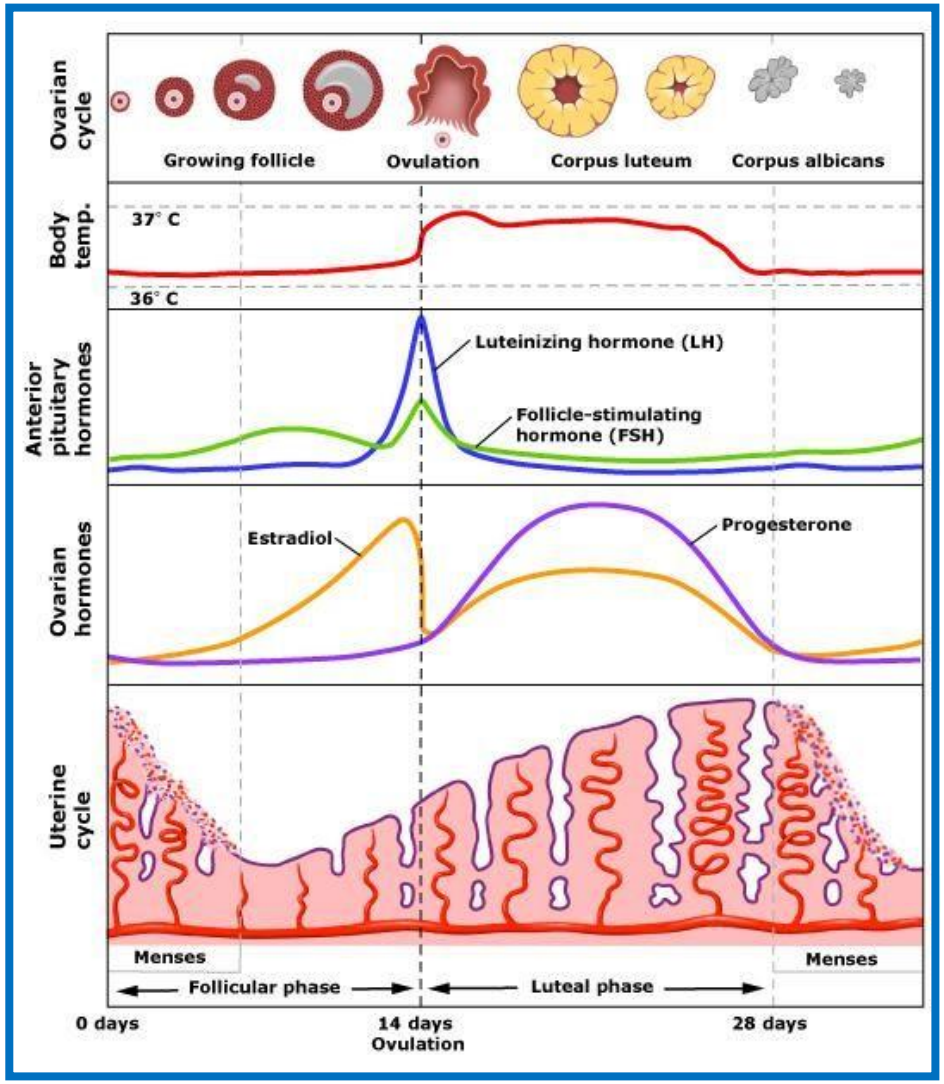
Key Terms	Definitions
Gland	A structure in the body that produces hormones
Pituitary Gland	The master gland in your brain that produces a number of hormones, including TSH, FSH and LH
Insulin	A hormone produced in your pancreas that lowers blood glucose by converting it into glycogen and storing it in the liver
Glycogen	An insoluble molecule made from many glucose molecules
Glucagon	A hormone produced in the pancreas that raises blood glucose by breaking down glycogen stored in the liver
Negative feedback	A homeostatic mechanism by which the body detects a change and makes an adjustment to return itself to normal
Type I Diabetes	A medical condition that usually develops in younger people, preventing the production of insulin
Type II Diabetes	A medical condition that usually develops in later life, preventing the person producing enough insulin or preventing cells from responding to insulin





Science - Homeostasis and Response (3 of 3)

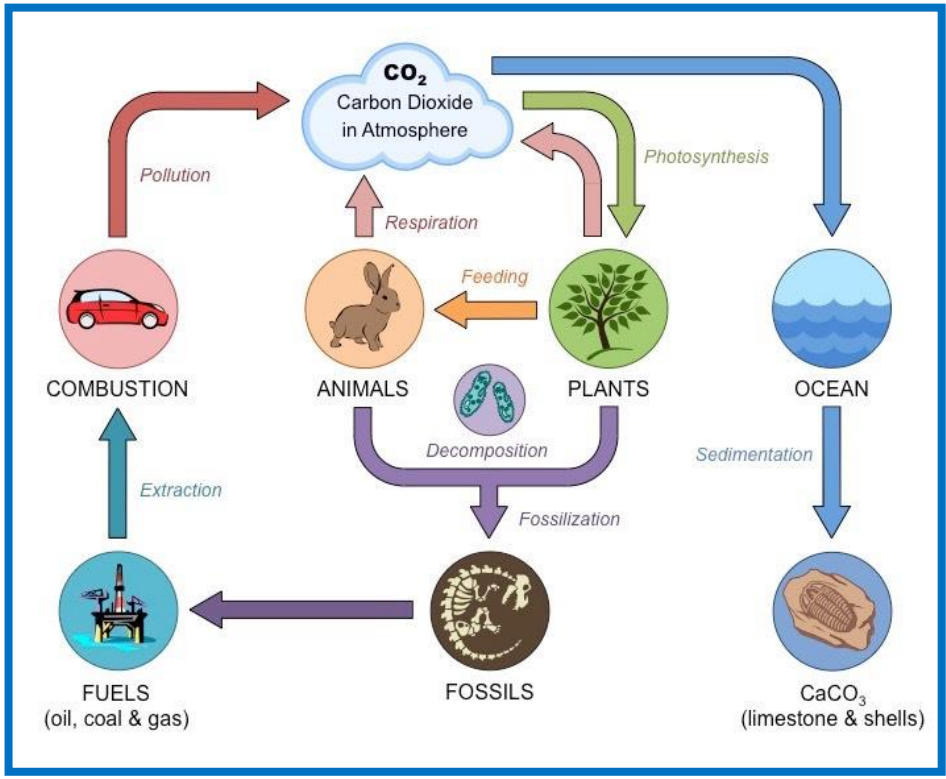
Key Terms	Definitions
Oestrogen	A female sex hormone produced in the ovaries that controls puberty and prepares the uterus for pregnancy.
Progesterone	A female sex hormone produced in the ovaries that prepares the uterus for pregnancy.
Testosterone	A male sex hormone produced in the testes that controls puberty.
Menopause	The point in a woman's life , usually between 45 and 55, when she stops menstruating and therefore cannot become pregnant.
Follicle stimulating hormone (FSH)	A hormone produced by the pituitary gland that causes an ovum to mature in an ovary and the production of oestrogen.
Follicle	A structure in an ovary in which an ovum (egg) matures.
Lutenising hormone (LH)	A hormone produced by the pituitary gland that stimulates ovulation.
Corpus luteum	After ovulation the empty follicle turns into this and releases progesterone.
Vasectomy	A contraceptive medical procedure during which a man's sperm ducts are blocked or cut.
Tubal ligation	A contraceptive medical procedure during which a woman's fallopian tubes are blocked or cut.



Science - Ecology

Key Terms	Definitions
Population	The total number of organisms of the same species in an area.
Community	Populations of different species living in the same area.
Competition	The contest between organisms for resources.
Interdependence	All the organisms in a community depend upon each other.
Abiotic	The non-living parts of the environment.
Biotic	The living parts of the environment.
Invasive species	An organism that is not native and causes negative effects.
Ecosystem	The interaction of a community of living organisms and the non-living parts of the environment.
Structural adaptation	An advantage to an organism as a result of the way it is formed eg streamlining.
Behavioural adaptation	An advantage to an organism as a result of its behaviour.
Functional adaptation	An advantage to an organism as a result of a process eg venom.
Extreme environment	A location in which it is challenging for most organisms to live.
Extremophile	An organism that lives in an extreme environment.
Sampling	Recording a small amount of information to make wider conclusions.
Quadrat	A square frame used in sampling.
Transect	A line along which systematic sampling occurs.
Producer	An organism that photosynthesises eg plant.
Biomass	A resource made from living organisms.
Consumer	An organism which eats other organisms. Primary consumers eat plants, secondary consumers eat herbivores, tertiary consumers eat carnivores.

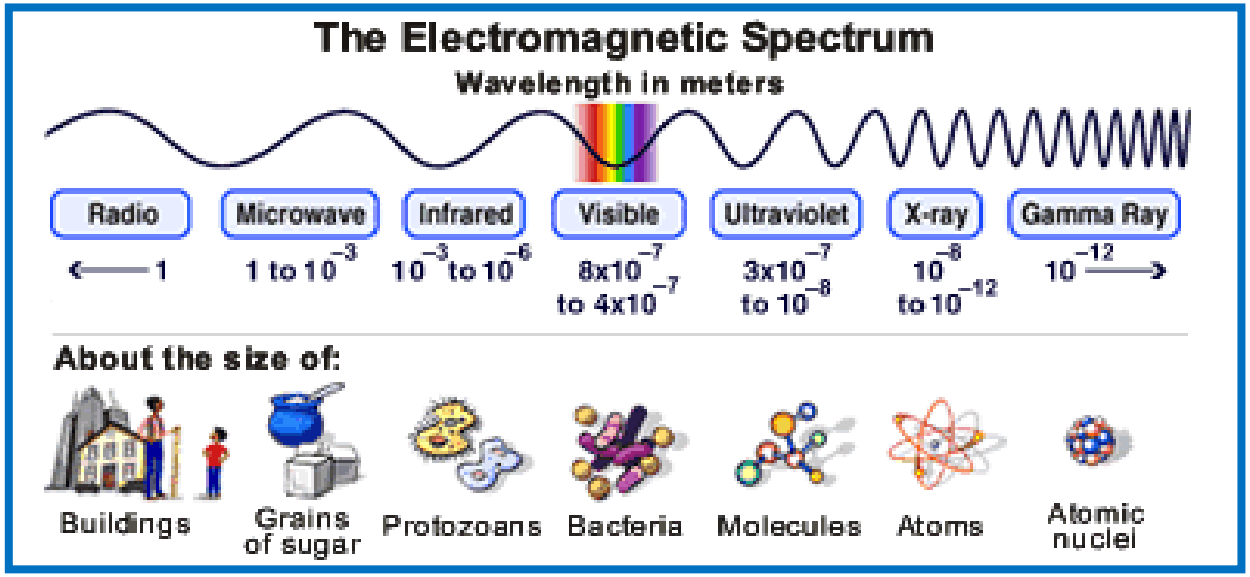
Biodiversity	A measure of the different species present in a community.
Incomplete combustion	Burning of a fuel without enough oxygen leading to carbon monoxide production.
Recycle	Changing a waste product into new raw materials to make another product.
Sustainable	An activity that can continue without damaging the environment.
Deforestation	Cutting trees down to use the land for something else.
Conservation	Protecting an ecosystem or species from reduced numbers and often extinction.

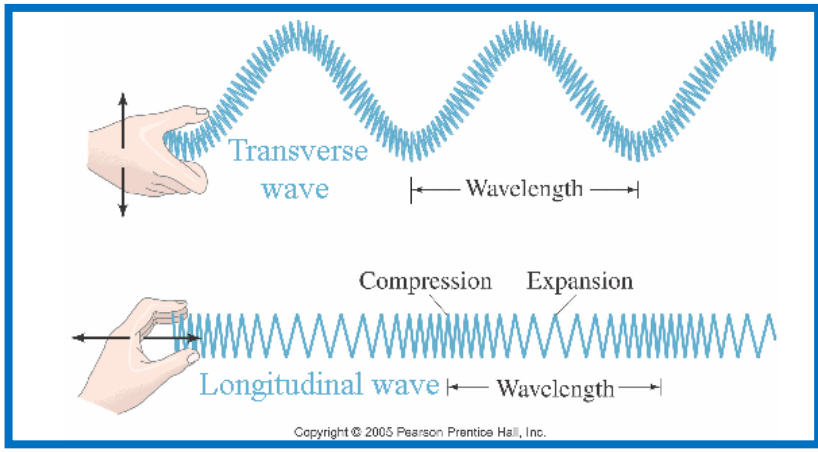


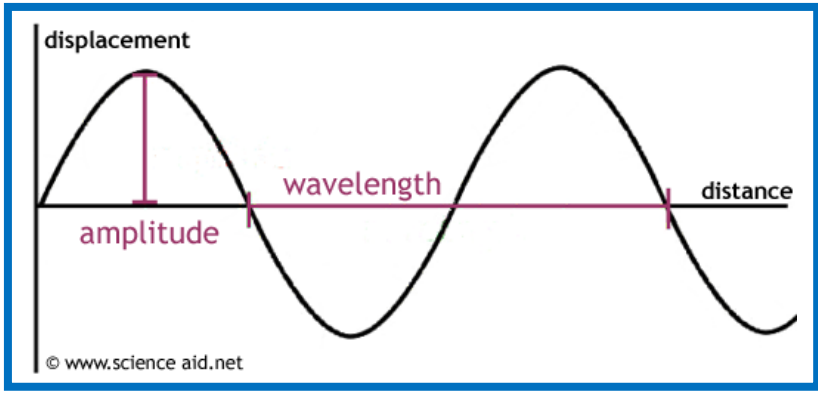
Science - Waves

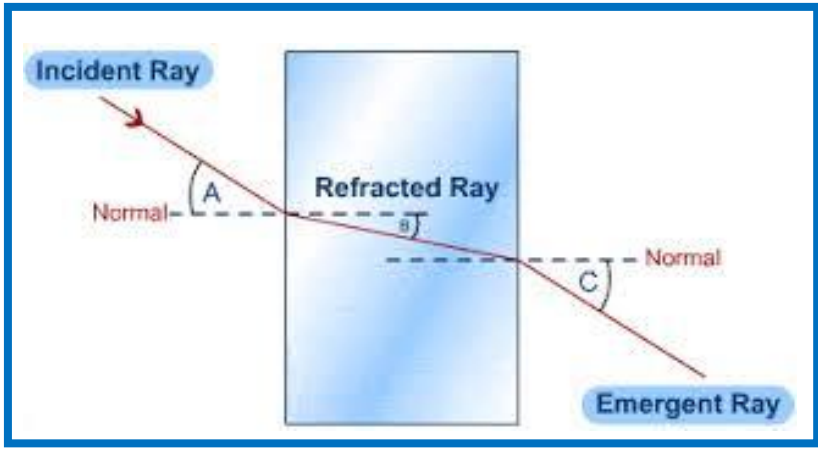
Key Terms	Definitions
Transverse wave	A wave in which the vibration causing the wave is at right angles to the direction of energy transfer.
Longitudinal wave	A wave in which the vibration causing the wave is parallel to the direction of energy transfer.
Amplitude	The height of the wave measured from the middle (the undisturbed position of the water).
Wavelength	The distance from a point on one wave to the equivalent point on the next wave.
Frequency	The number of waves produced each second. It is also the number of waves passing a point each second.
Period	The time taken to produce one wave.
Angle of refraction	The angle between the refracted ray and the normal.

$v = f \times \lambda$. velocity = frequency x wavelength.



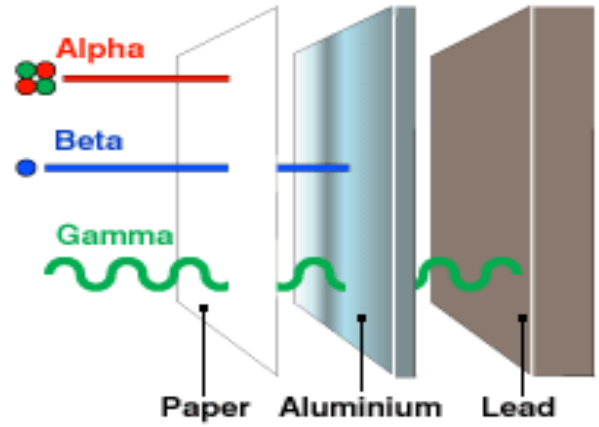






Science - Radiation (Atomic Structure)

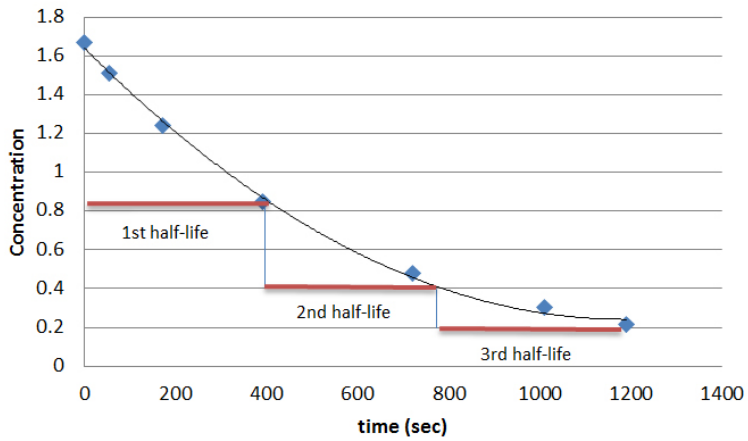
Key Terms	Definitions
Proton	A positively charged particle found in the nucleus of an atom.
Neutron	A neutral particle found in the nucleus of an atom.
Electron	Negatively charged particles found on energy levels (shells) surrounding the nucleus inside atoms.
Atomic number	Number of protons in an atom.
Mass number	Number of protons plus neutrons in an atom.
Isotope	Atoms with the same number of protons but a different number of neutrons.
Alpha particle	A particle formed from two protons and two neutrons.
Beta particle	A fast moving electron.
Gamma ray	An electromagnetic wave.
Geiger-Müller (GM) tube	A device which detects ionizing radiation. An electronic counter can record the number of particles entering the tube.
Half-life	The time taken for the number of nuclei in a radioactive isotope to halve. In one half-life the activity or count rate of a radioactive sample also halves.
1 Becquerel (1Bq)	An emission of 1 particle per second.



$^{235}_{92}U \xrightarrow[\text{an alpha particle}]{\text{decay by releasing}} {}^{4}_{2}\alpha + {}^{231}_{90}Th$

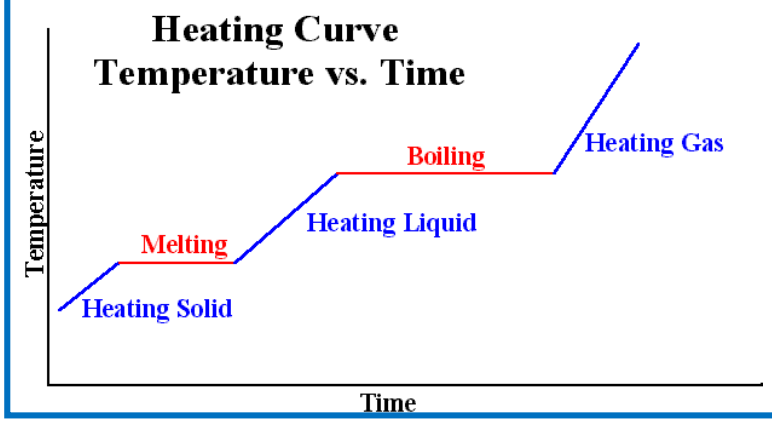
$^{14}_{6}C \xrightarrow[\text{an beta particle}]{\text{decay by releasing}} {}^{0}_{-1}\beta + {}^{14}_{7}N$

$^{235}_{92}U \xrightarrow[\text{a gamma wave}]{\text{decay by releasing}} {}^{0}_{0}\gamma + {}^{235}_{92}U$



Science – Particle Model of Matter

Key Terms	Definitions
Model	A way of thinking about or explaining a concept.
Physical change	A reversible change of state
Pressure	Force/area

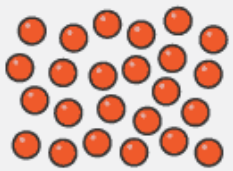


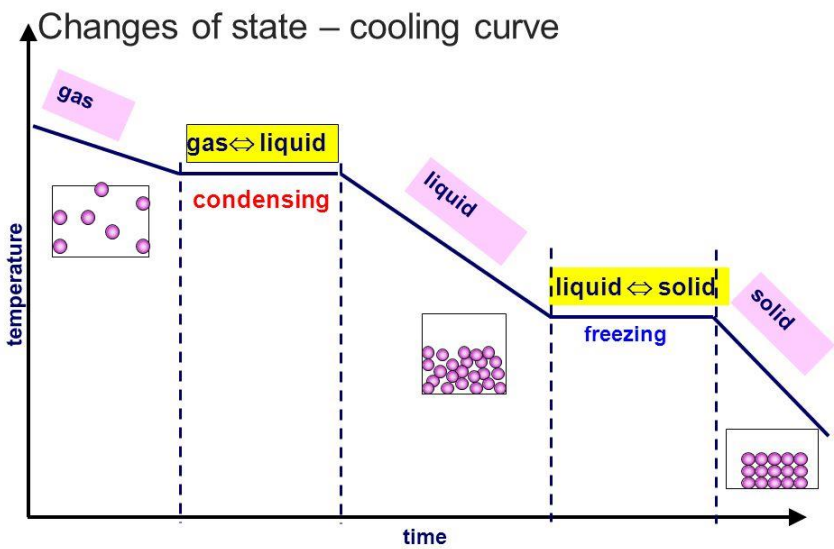
Equations

$\rho = \frac{m}{V}$ Density = mass ÷ volume

$\Delta E = mc\,\Delta\theta$ Change in thermal energy = mass x specific heat capacity x temperature change

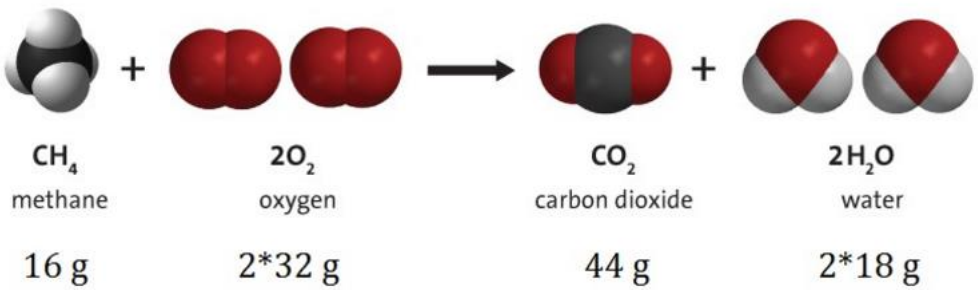
$E = mL$ Energy required to change state = mass x specific latent heat

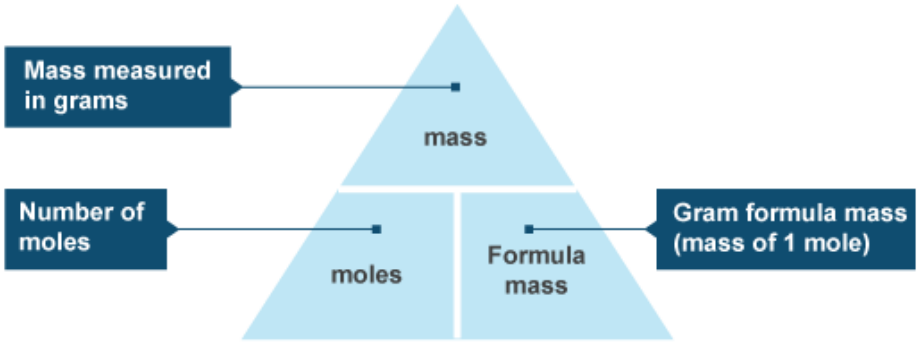
	Solid	Liquid	Gas
Arrangement of particles	Close together Regular pattern	Close together Random arrangement	Far apart Random arrangement
Movement of particles	Vibrate on the spot	Move around each other	Move quickly in all directions
Diagram			



Science – Quantitative Chemistry

Key Terms	Definitions
Relative atomic mass	The average mass of atoms of an element, taking into account the mass and the amount of each isotope it contains.
Relative formula mass	The sum of the relative atomic masses of all the atoms in the formula.
Mole	Measurement of the amount of a substance.
Avogadro constant	The number of atoms, molecules or ions in one mole of a given substance (6.02×10^{23}).
Thermal decomposition	Reaction where high temperature causes a substance to break down into simpler substances.
Excess	When the amount of a reactant is greater than the mount that can react.
Limiting reactant	The reactant in a reaction that determines the amount of products formed. Any other reagents are all in excess and will not react.

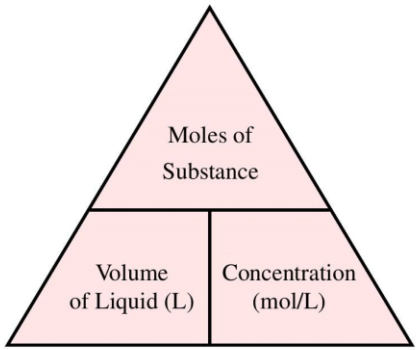


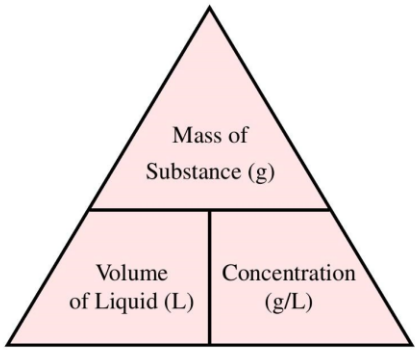


carbon	+	oxygen	→	carbon dioxide
C	**+**	**O_2**	**→**	**CO_2**
12	+	2 x 16	→	12+(2 x 16)
12g		32g		44g

So we need 32g of oxygen to react with 12g of carbon and 44g of carbon dioxide is formed in the reaction.

revisionworld

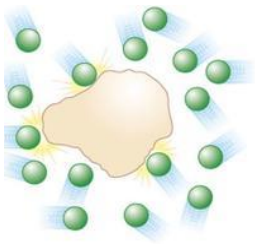




Science – The Rate and Extent of Chemical Change

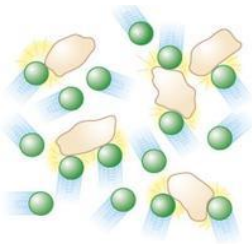
Key Terms	Definitions
Rate of reaction	The speed at which a reaction takes place. This can be worked out in two ways: Mean rate of reaction = quantity of reactant used ÷ time Mean rate of reaction = quantity of product formed ÷ time
Activation energy	The minimum energy particles must have to react
Catalyst	A substance that speeds up a chemical reaction by lowering the activation energy
Enzymes	Molecules that act as catalysts in biological systems
Closed system	A system where no substances can get in or out
Dynamic equilibrium	System where both the forward and reverse reactions are taking place simultaneously and at the same rate

Low surface area



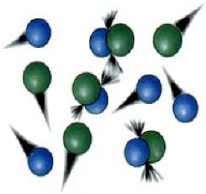
one big lump (slow reaction)

High surface area

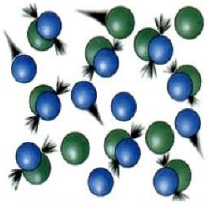


several small lumps (fast reaction)

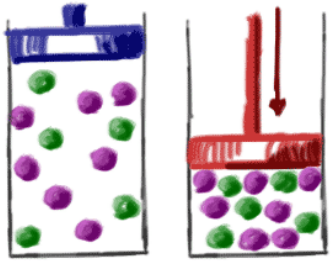
Factors affecting rates of reaction



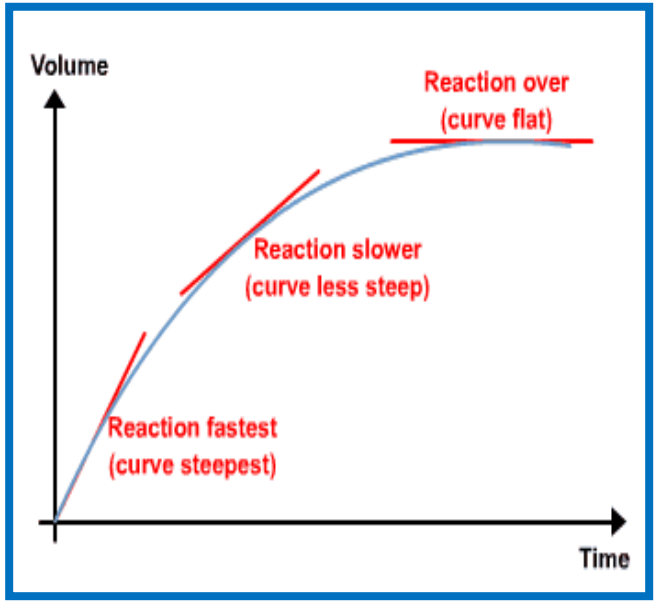
Low concentration = Few collisions

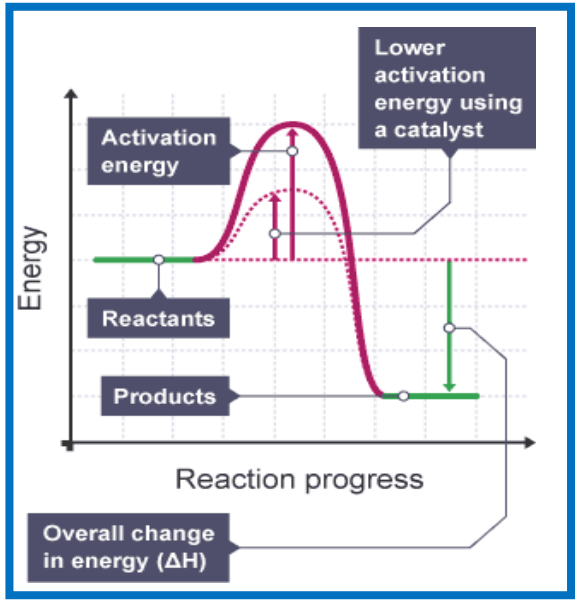


High concentration = More collisions



AS PRESSURE INCREASES, THE GAS MOLECULES CAN HAVE MORE COLLISIONS.





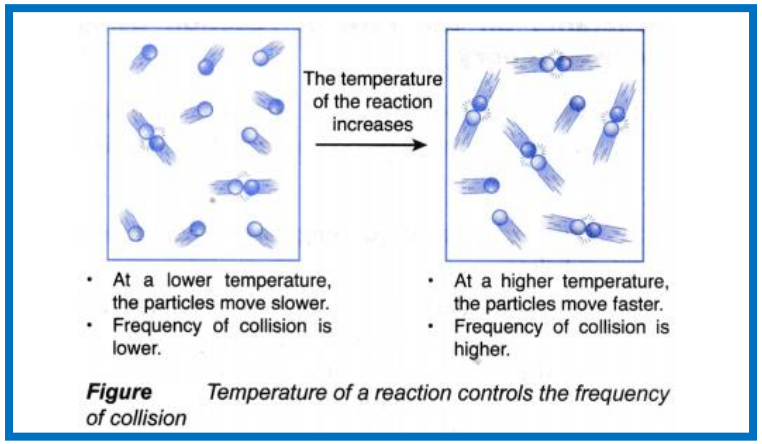
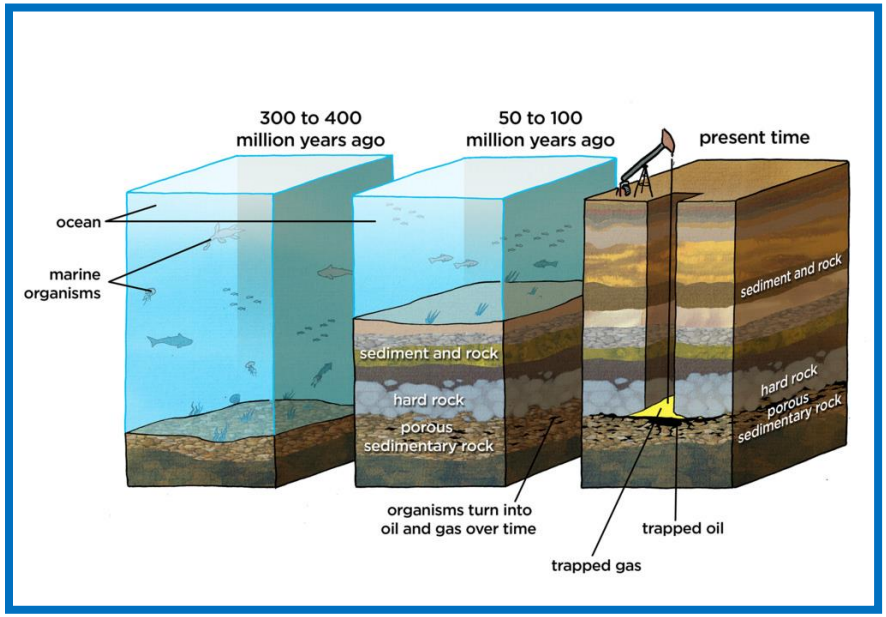
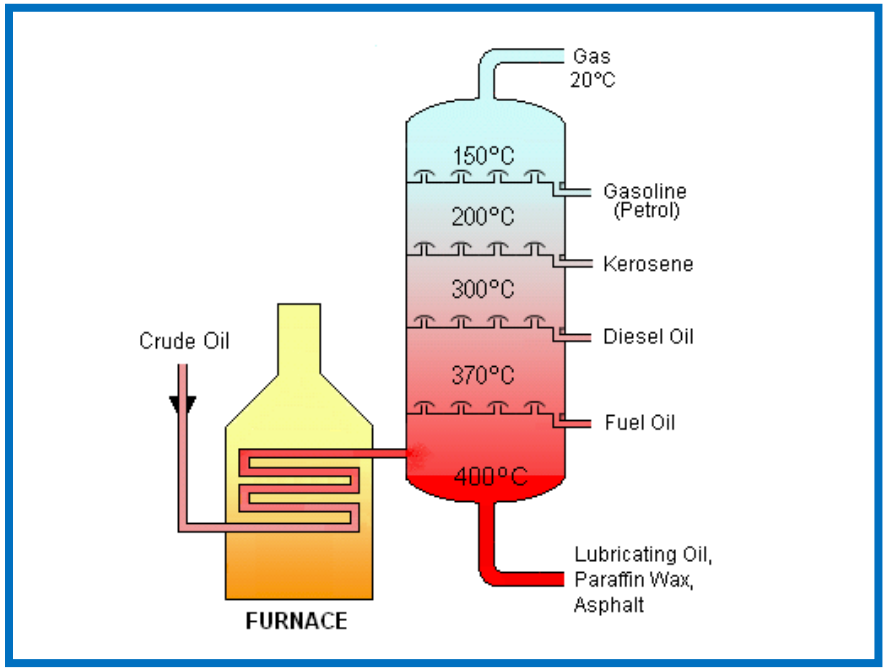


Figure *Temperature of a reaction controls the frequency of collision*

Science - Organic Chemistry

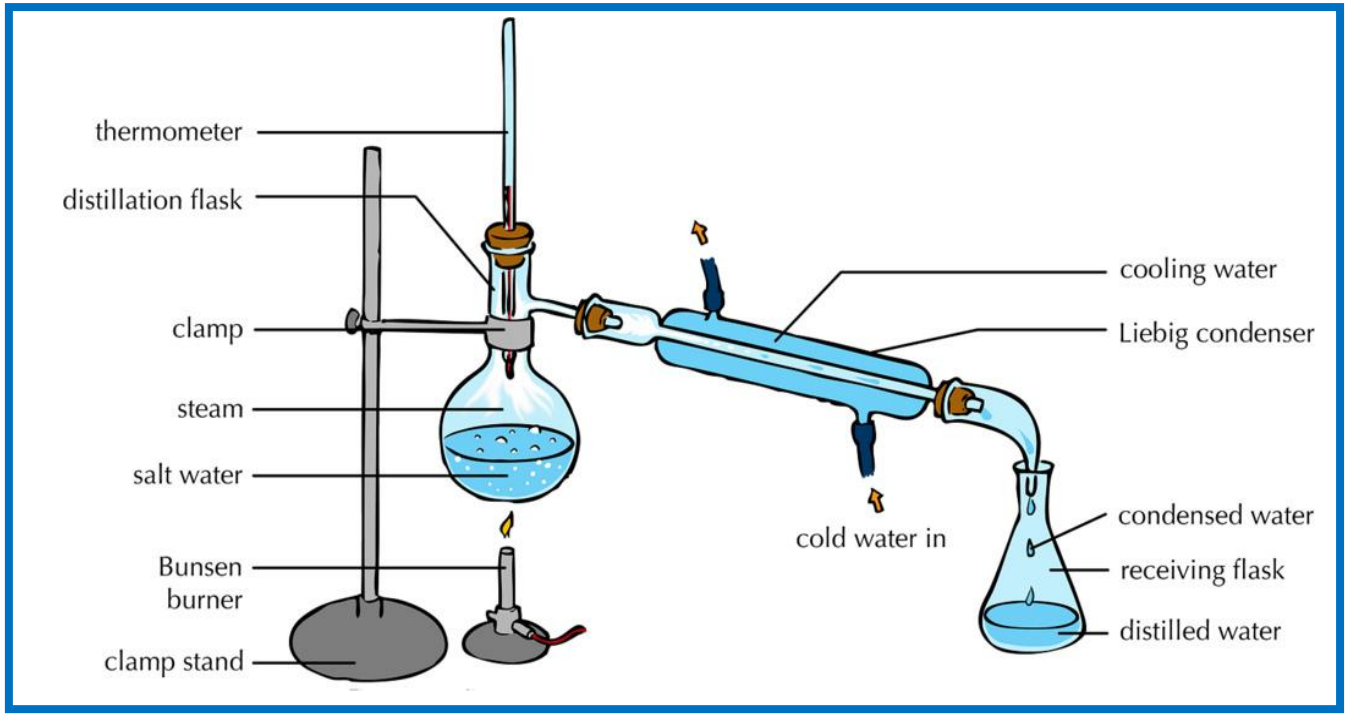
Key Terms	Definitions
Biomass	A resource made from living or recently living organisms.
Hydrocarbon	A compound containing hydrogen and oxygen only.
Alkanes	A homologous series of saturated hydrocarbons with the general formula C_nH_{2n+2}.
Saturated	A molecule that only contains single covalent bonds. It contains no double covalent bonds.
Displayed Formula	Drawing of a molecule showing all atoms and bonds.
Homologous Series	A family of compounds with the same general formula and similar chemical properties.
Fractional Distillation	A method used to separate miscible liquids with different boiling points.
Fraction	A mixture of molecules with similar boiling points.
Complete Combustion	When a substance burns with a good supply of oxygen.
Flammability	How easily a substance catches fire; the more flammable, the more easily it catches fire.
Viscosity	How easily a liquid flows; the higher the viscosity the less easily it flows.
Alkenes	A homologous series of unsaturated hydrocarbons with the general formula C_nH_{2n}.
Unsaturated	A molecule that contains one or more double covalent bonds.
Polymer	A long chain molecule in which lots of small molecules (monomers) are joined together.





Science – Using Resources

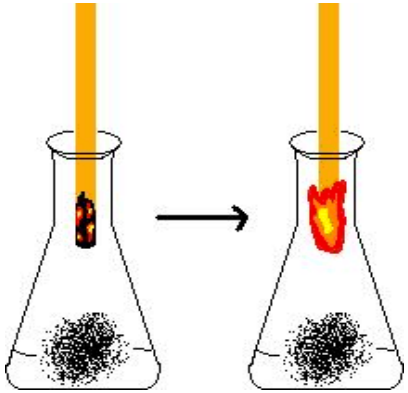
Key Terms	Definitions
Finite resource	A resource that cannot be replaced once it has been used.
Renewable resource	A resource that we can replace once we have used it.
Sustainable development	Using resources to meet the needs of people today without preventing people in the future from meeting theirs.
Life cycle assessment	An examination of the impact of a product on the environment throughout its life.
Value judgement	An assessment of a situation that may be subjective, based on a persons opinion and / or values.
Desalination	Process to remove dissolved substances from sea water.
Ore	A rock from which a metal can be extracted for profit.
Phytomining	The use of plants to absorb metal compounds from soil as part of metal extraction.
Bioleaching	The use of dilute acid to produce soluble metal compounds from insoluble metal compounds.
Leachate	A solution produced by leaching or bioleaching.

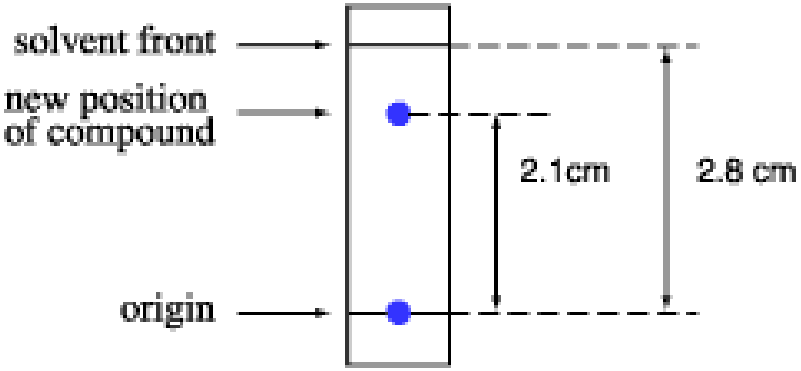


Science - Chemical Analysis

Key Terms	Definitions
Pure substance	A single element or compound that is not mixed with any other substance.
Formulation	A mixture that has been designed as a useful product.
Chromatography	A technique that can be used to separate mixtures and then identify substances.

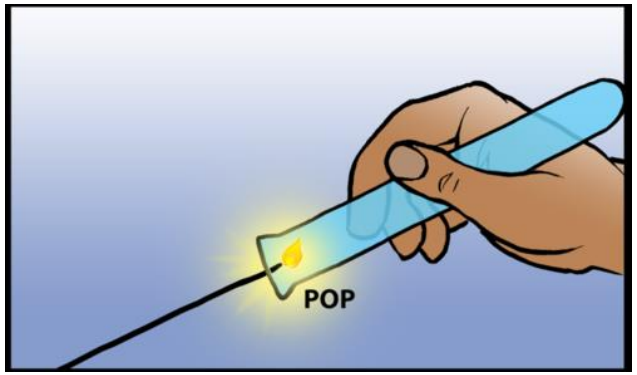
Testing for oxygen



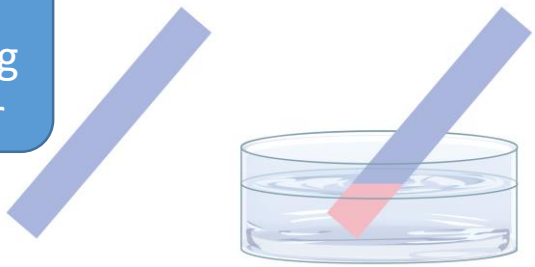


$$R_f = \frac{2.1}{2.8} = 0.75$$

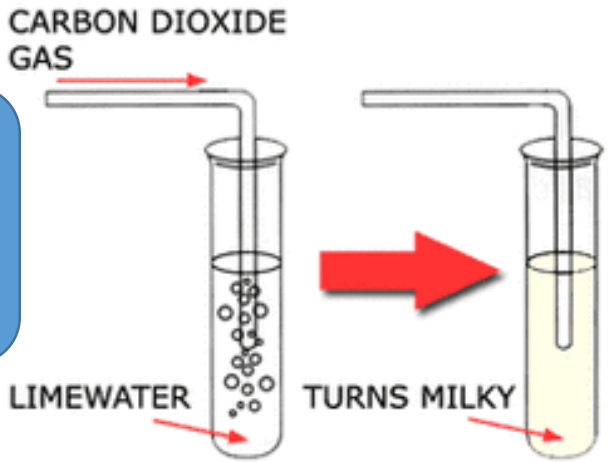
Testing for hydrogen



Testing for chlorine using litmus paper



Testing for CO_2



My Diary :

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	07/09/2020	08/09/2020	09/09/2020	10/09/2020	11/09/2020	12/09/2020	13/09/2020
2	14/09/2020	15/09/2020	16/09/2020	17/09/2020	18/09/2020	19/09/2020	20/09/2020
3	21/09/2020	22/09/2020	23/09/2020	24/09/2020	25/09/2020	26/09/2020	27/09/2020
4	28/09/2020	29/09/2020	30/09/2020	01/10/2020	02/10/2020	03/10/2020	04/10/2020
5	04/10/2020	05/10/2020	06/10/2020	07/10/2020	08/10/2020	09/10/2020	10/10/2020
6	11/10/2020	12/10/2020	13/10/2020	14/10/2020	15/10/2020	16/10/2020	17/10/2020
7	18/10/2020	19/10/2020	20/10/2020	21/10/2020	22/10/2020	23/10/2020	24/10/2020

My Homework

Week						
07/09						
14/09						
21/09						
28/09						
04/10						
11/10						
18/10						

Home Contact

Knowledge, Notes and Quizzes