



Cedar Mount Academy

BRIGHT FUTURES EDUCATIONAL TRUST

Knowledge Organiser

YEAR GROUP: 9 TERM: 3

NAME

FORM

“Education opens our eyes, our ears, tells us where delights are lurking, convinces us that there is only one freedom of any importance whatsoever, that of the mind, and gives us the assurance – the confidence – to walk the path our mind, our educated mind, offers.” – Iris Murdoch

How to use your knowledge organiser

You are expected to bring your knowledge organiser to the academy every day

This knowledge organiser contains all the key knowledge that you need to know for your learning this term. You should spend at least 30 minutes every evening using the knowledge organiser to complete a learning homework. You should record the subject or subjects on the learning homework page and show this to your form tutor on a weekly basis.

You will be tested in lessons on your learning from this knowledge organiser.

In some lessons, your teacher will ask you to learn specific sections of the knowledge organiser, but otherwise you should work through each subject independently, trying to memorise the information in the booklet. The more you can remember, the more useful it will be for your lessons.

How to learn using a knowledge organiser

The best way to use a knowledge organiser is to revise the information so that you can recall it when you are asked. The best methods to do this are:

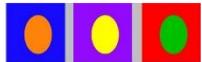
- Look, cover, write and check the key words and knowledge lists
- Ask a family or friend member to test you on the knowledge
- Create a mind map to remember the information in each section
- Write down on a blank piece of paper as much as you can remember from the organiser
- Use the knowledge organiser to help you complete work in school and at home

Primary Colours are the 3 main colours. They cannot be made but are used to make other colours.

Secondary Colours are made by mixing 2 primary colours together.

Complementary Colours are opposite on the colour wheel.

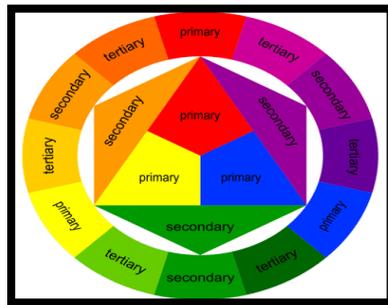
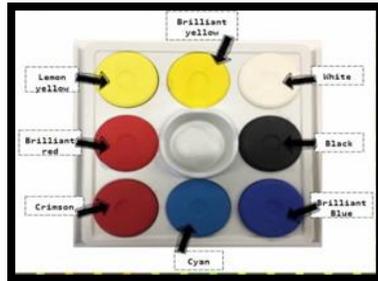
Harmonious Colours are next to each other on the colour wheel.



Tint – when you add white to a colour to make it lighter.

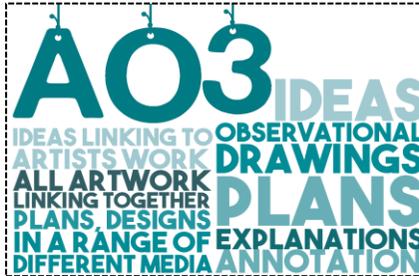
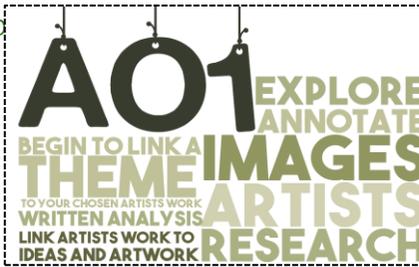


Shade – when you add black to make the colour darker.



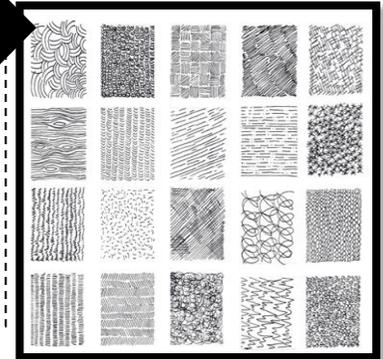
Making Objects Look 3 Dimensional

To prevent your drawings from looking flat, you should use a range of tones and marks. Pressing harder and lighter and layering with your pencil creates different tones. Use the direction of your pencil to help enhance the 2D surface and you can include shadows which will also help objects appear 3 dimensional.



Mark Making

To make your drawings look more realistic, you should try to use different marks to show textures and surfaces. You can do this by changing the direction, pressure or length of your marks.



Art Formal Elements

Colour/Line/Tone/Texture/
Shape/Pattern/Form

Art Techniques Key Words	
Media/Medium	The materials and tools used by the artist to create a piece of art.
Technique	The way an artist uses tools and materials to create a piece of art,
Composition	Where you place objects on a page.
Highlight	The bright and reflective area on an object or piece of art.
Shadow/shade	The darker areas within a piece of art or object.
Proportion	The size relationship between different parts - e.g. Height compared to width.

Business Studies

What students need to learn

- breakeven level of output
- margin of safety.

Interpretation of breakeven diagrams:

- the impact of changes in revenue and costs
- breakeven level of output
- margin of safety
- profit and loss.

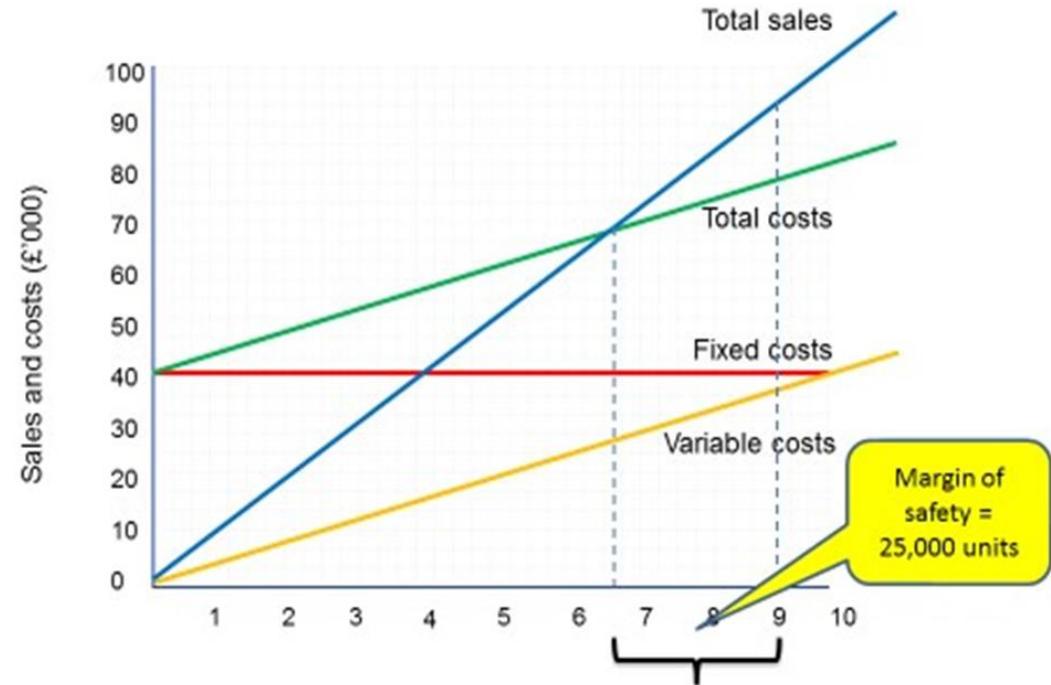
Calculating break even without using a graph.

Break even charts can be time *consuming* to make so often a formula is used instead:

$$\text{BREAKEVEN} = \frac{\text{FIXED COSTS}}{(\text{Selling price} - \text{Variable cost per unit})}$$

BREAKEVEN

The point at which sales revenue = total costs. At this point the business is neither making a profit nor a loss.



MARGIN OF SAFETY =

The difference between the breakeven level of output and actual level output.

$$\text{MOS} = \text{CURRENT OUTPUT} - \text{BREAKEVEN OUTPUT}$$

In this example = 90,000 – 65,000 = 25,000 units



Business Studies

<p><u>What students need to learn</u></p> <p>The importance of cash to a business:</p> <ul style="list-style-type: none"> ▪ to pay suppliers, overheads and employees ▪ to prevent business failure (insolvency) ▪ the difference between cash and profit. <p>Calculation and interpretation of cash-flow forecasts:</p> <ul style="list-style-type: none"> ▪ cash inflows ▪ cash outflows ▪ net cash flow ▪ opening and closing balances. 	<p><u>Key Definitions:</u></p> <p>Cash: The money a firm holds in notes and coins and in its bank account.</p> <p>Cash Flow: The movement of money in and out of the business.</p> <p>Cash Flow forecast: Estimating the likely flows of cash over the coming months – therefore showing the state of a business’s bank balance</p>
<p><u>Cash Flow</u></p> <p>Cash flow is the money that flows into and out of the business on a day to day basis</p> <p>Money that flows INTO the business are known as CASH INFLOWS</p> <p>Money that flows OUT of the business are known as CASH OUTFLOWS</p>	<p><u>Why is cash important?</u></p> <p>Cash is like air; profit is like food. You need cash all the time but you can survive for a while without profit.</p> <p>Cash is needed to:</p> <ul style="list-style-type: none"> ▪ Pay suppliers ▪ Overheads eg rent ▪ Employee wages <p>CASH and PROFIT are <i>different</i> – you need to remember this and understand the reasons why</p> <p>If a business does not have enough cash to pay for these things it is likely they will fail as they will have become insolvent. (Not enough cash to pay their debts)</p>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>IN</p> <ul style="list-style-type: none"> •Sales •Loans from banks •Interest on money in the bank (savings) •Sale of an asset (like a Lorry) •Money invested by a businesses owners •Grants from governments </div> <div style="width: 10%; text-align: center;">  </div> <div style="width: 45%;"> <p>OUT</p> <ul style="list-style-type: none"> •Purchase of stock/raw materials •Wages/salaries •Interest on loans •Bills (electricity) •Rent/mortgage •Taxes •Business rates •Start up costs </div> </div>	<p><u>Cash flow forecast</u></p> <ul style="list-style-type: none"> ▪ Cash IN ▪ Cash OUT ▪ Net cash flow – the difference between cash in (inflows) and cash out (outflows). You want this to be in CREDIT ▪ Opening balance – a business’s cash position at the start of the month (Use last month’s closing balance) ▪ Closing balance – how much a business has at the end of the month. It is calculated by adding the net cash flow and the opening balance. This figure then becomes the opening balance for next month

Citizenship

Key words	Theme A
<ol style="list-style-type: none"> 1. Hate Crime: any crime committed against someone because of their religious belief, race, sexual orientation, gender, and disability (etc.) 2. Ignorance: A lack of information or knowledge which can lead to negative consequences 3. Riot: a violent disturbance of the peace by a crowd 4. Anarchy: an absence of government or authority 5. Community Cohesion: creating a community where there is a sense of belonging for all communities and people’s different backgrounds are valued 6. Integration: bringing different groups of people together in society 7. Magna Carta: a charter of rights which the English barons forced King John to sign in 1215 8. Councillor: a member of a local council, elected by people in the area. 9. Election: selection of one or more people in the area. 10. Member of Parliament: a person who has been elected to represent a part of the country in Parliament. 11. Act: a law passed by Parliament 12. Legal right: a right that is protected by the law. 13. National Living Wage: the minimum amount to be paid to an employee over the age of 25 14. National Minimum Wage: the minimum amount to be paid to an employee 15. Trade Unions: organisations that look after the interests of a group of people. 16. Contract of Employment: a document that details an employee’s and employer’s responsibilities for a particular job 	<ol style="list-style-type: none"> 17. Citizens Advice Bureau (CAB): an organisation that offers free advice on consumer and other legal matters 18. Consumer: a person who buys goods or services for their own use 19. Office of Fair Trading: a government office that can take action against traders who break the law 20. Trading Standards Department: official body that enforces consumer-based law 21. Moral Right: the responsibility of people to behave in a moral way towards others 22. Responsibility: something it is your duty to do or to look after 23. Propaganda: information which might be biased or misleading, used to promote a political cause or point of view 24. Council: a group of people who are elected to look after the affairs of a town, district or county. 25. Manifesto: a published statement of the aims and policies of a political party 26. Polling station: a place where votes are cast; often a school, library or village hall. 27. Ward: an area that forms a separate part of a local council 28. Cabinet: the main decision making body of the council 29. Majority: the party with a majority has won a bigger proportion of the votes than the others. 30. Mayor: a member of the council who is selected to be its representative on ceremonial occasions; in some areas they are also the elected leader. 31. Business rates: a form of tax paid by all the businesses in an area. The amount a business pays depends on the rent that could be charged for its premises. 32. Council tax: a tax paid by everyone who lives in an area. It is based on the value of their house
<p>Key information</p> <ol style="list-style-type: none"> 33. Community cohesion is important because it allows everyone to play their part in society and live together happily without friction. Learning English, understanding the country’s history and the features of everyday life are all parts of being a UK citizen and help with community cohesion. 34. The Magna Carta was signed by King John in 1215 and meant for the first time in England people were equal before the law and that no could be imprisoned without a fair trial. The signing of the Magna Carta was the beginning of Parliament. 35. Human rights are what every human is entitled too. It was created after WW2 by the United Nations. There are 30 human rights for adults aged above 18. Human rights make sure everyone is treated fairly with dignity and respect. 36. The Convention of the Rights of the Child was created in 1989 and requires all countries to protect children under the age of 18. Every country apart from America has ratified the convention. 37. We can vote for people in power at three different levels, locally (counsellor), nationally (MP) and internationally (Member of European Parliament). We all have the right to vote as long as you are over the age of 18. You can also stand for an election when you turn 18. 	<p>Theme A</p>

Citizenship

38. When the law protects a human right, it becomes a legal right. An example of this is education. Everyone has the right to education but if you do not attend school, the parents/carers can be prosecuted. This is to make sure the right to education is being practised.
39. Employment laws protect the rights of employees and make sure businesses carry out their responsibilities towards their staff. All staff have signed a contract and this states their rate of pay, date of starting, whether or not they get sick pay and their holiday entitlements.
40. Trade unions help employees if they are ever in a situation where they are not getting the correct pay, working in unsafe conditions or being mistreated at work. They help to make sure employees are happy and safe in their work.
41. The Consumer Rights Act 2015 was introduced to protect people who buy and sell products. The law now states that we should be provided with clear and honest information, we get what we pay for, the products are fit for purpose and faults should be put right free of charge or a replacement should be provided.
42. All of your rights come with responsibility. You have the responsibility to make sure you are not harming anyone else's rights. There are laws about where you can and cannot smoke for an example but parents have a responsibility to make sure their children have the moral rights of being brought up in a smoke free environment.
43. The local council is made up of local people who make decisions about local services. Each area that is represented by one councillor is known as a ward. Councils produce manifestos in the same way MPs do and you vote for your councillor at a polling station, the same way we vote for an MP.
44. The structure of the council is; the leader, the cabinet (each member is responsible for one local issue), council and then the committees. Committees make recommendations to the council on improvements that need making in the local areas.
45. The council gets its money from; business rates, government grants, council tax, tax surplus from last year. The council spend the money on; social services, fire and police, planning and transport, leisure, housing and education.

Source work

Things to consider when looking at sources:

- Does the writer have an opinion or bias? If so, what is it?
- What do you know on the topic that is related to the story?
- If the information is about a country other than England, compare it with what happens in England.
- What is your opinion on the story? Do you agree or disagree with it? Why?
- In your opinion, how trustworthy is this source? Why

ISIS fighter Jihadi Jack is stripped of his UK passport sparking furious diplomatic row with Canada where he has joint citizenship

- EXCLUSIVE: Jihadi Jack, an IS fighter, has been stripped of his British citizenship
- Muslim convert Jack Letts, 24, fled his Oxfordshire home to fight in Syria.
- Move has sparked a row between the UK and Canada, as he is a dual citizen.

By HARRY COLE FOR THE MAIL ON SUNDAY PUBLISHED: 22:01, 17 August 2019 | UPDATED: 23:20, 17 August 2019

The IS fighter known as Jihadi Jack has been stripped of his British citizenship, sparking a furious diplomatic row with Canada. Muslim convert Jack Letts, 24, had held dual UK and Canadian citizenship but declared himself an 'enemy of Britain' after fleeing his Oxfordshire home to fight in Syria. After being captured by Kurdish authorities, he begged to be allowed back to the UK and, despite previously saying he wanted to be a suicide bomber, insisted he had 'no intention of blowing up' Britons. But The Mail on Sunday can reveal that the Home Office has torn up his British passport, making him the responsibility of the Canadian government.

The decision has sparked fury in Ottawa, with fears of a public spat when Canadian PM Justin Trudeau meets Boris Johnson at the G7 summit in France next weekend. Whitehall officials suspect the row may also explain the recent hardline stance taken by the Canadians over a post-Brexit trade deal with the UK.

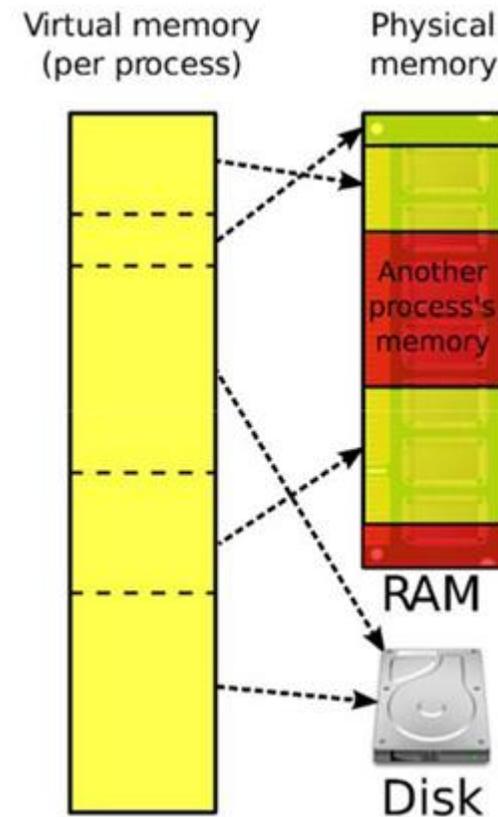
Letts is among more than 120 dual nationals who have been stripped of their British citizenship since 2016. International law prevents the Government from making people 'stateless' so the move can only be taken against those with two passports.

Computer Science – CPU and Memory

Key vocabulary	
Primary Memory	Memory used to store data and instructions that are required by the CPU.
RAM	Random Access Memory is volatile memory used to store data and instructions which are needed by the CPU. Also referred to as main memory.
Dynamic RAM	Contains 1 transistor and capacitor that hold charge briefly. This needs to be refreshed every few milliseconds.
Static RAM	Uses 5 transistors which are wired together to represent each bit. No need to be refreshed. More wiring per bit.
ROM	Read only memory. Used to store the boot sequence as this should never be changed. This memory is non-volatile.
Bootstrap loader	A small program that loads the operating system. Once the operating system is loaded it takes care of the rest.
Flash Memory	Electrons are forced into a layer between two barriers which hold the charge by using a high electric current.
Virtual Memory	When RAM is full, a section of the hard drive can be used to store programs and instructions.
Volatile	Storage which needs to have power to store data. If power is lost, data is lost.
Non-Volatile	Storage which does not lose its contents when the power is lost.



RAM vs ROM	
RAM	ROM
Volatile memory	Non-volatile memory
Stores the user data / programs / part of the operating system that is currently in use.	Used to store the BIOS / bootstrap loader.
Memory can be written to or read from.	Memory can only be read from and not written to.



Computer Science

Key vocabulary	
Secondary Storage	A non-volatile storage medium which stores files and programs. Examples include the hard drive (HDD) and solid-state drives (SSD).
Magnetic devices	Magnetic disks are read and written to with a moving head inside the disk drive. They often contain moving parts and are susceptible to damage. Magnetic devices can be either internal or portable.
Solid State devices	SSD has no moving parts. It retains an electronic charge using logic gates. Examples include SD cards and USB memory sticks. Also referred to as flash storage.
Optical devices	Optical media includes CD, DVD and Blu-Ray disks. Lasers are used to read and write data to a disk. Data is stored on tracks around the disk as a series of pits which represent binary code.
Cloud storage	Cloud storage refers to saving data in an off-site location maintained by another party. Examples include Dropbox, Google and Microsoft. This relies on having an internet connection to be able to upload and download files from a cloud server.

Comparing secondary storage	
Capacity	The amount of space that is available to store files. Generally measured in GB.
Speed	How quickly a computer can read and write data from a storage device.
Portability	How easy a device is to be transported. Some devices may be permanent hardware, others may be easier to transport.
Durability	Will the device withstand a certain amount of damage without corrupting files?
Reliability	The length of time that a device is expected to last for, how long will it retain functionality?
Cost	The cost of a device is compared in terms of cost per GB.

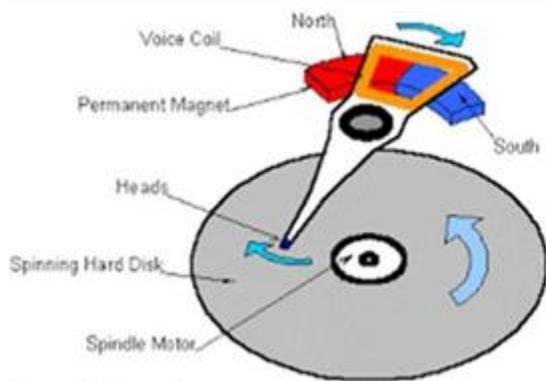


Figure 1 – Magnetic storage

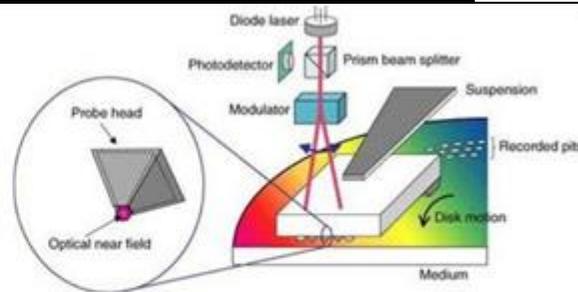


Figure 2 - Optical storage

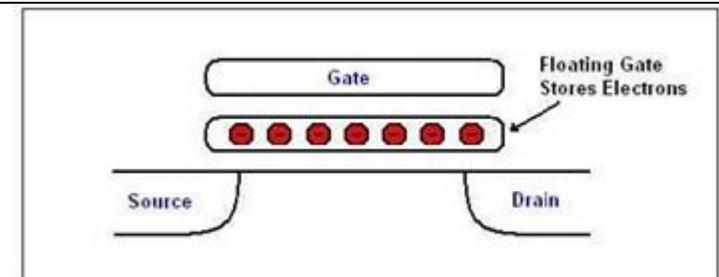


Figure 3 - Solid State storage

English – Persuasive writing

<p>THE ARISTOTELIAN TRIAD: Strategies to appeal to an audience</p>		<p>ANNOTATED EXAMPLE OF SPEECH: ‘I Have A Dream’ speech by Martin Luther King</p>		
<p>Ethos</p>  <p>Logos</p>  <p>Pathos</p> 	<p>Appeal of personality or character. Establishes the author’s credibility.</p> <ul style="list-style-type: none"> ▪ Good will ▪ Good character ▪ Expertise <p>Appeal to reason. Establishes a logic argument.</p> <ul style="list-style-type: none"> ▪ Statistics/Facts ▪ Citing authority ▪ Data ▪ Benefits <p>Appeal to the emotions of the author’s audience.</p> <ul style="list-style-type: none"> ▪ Fear ▪ Duty ▪ Hope ▪ Patriotism 	<p>Anaphora: the repetition of a word or phrase at the beginning of multiple sentences. This helps Martin Luther King stress the point he is trying to make, creating a sense of urgency. Change must happen now or it will not happen at all.</p> <p><i>Now is the time to make real the promises of democracy.</i> <i>Now is the time to rise from the dark and desolate valley of segregation to the sunlit path of racial justice. Now is the time to lift our nation from the quicksands of racial injustice to the solid rock of brotherhood.</i></p> <p>Pathos created through King’s use of direct address. He is appealing to the audience’s sense of duty. They all have a part to play in helping their country end racism and segregation forever.</p>	<p>Metaphor: Segregation is compared to a ‘dark and desolate valley’ to make it sound bleak. ‘Dark’ suggests negativity and ‘desolate’ implies there is a lack of hope.</p> <p>Metaphor is used here to compare ‘brotherhood’ to a solid rock. A rock is strong and stable, a foundation for Martin Luther King’s dream of a ‘brotherhood’, a community of people who are not divided.</p>	
<p>RHETORICAL METHODS</p> <ul style="list-style-type: none"> ▪ Anaphora - The repetition of a word or phrase at the beginning of multiple sentences. ▪ Direct Address - Addressing a person or a group of people directly through use of name or personal pronouns. ▪ Hyperbole - Exaggerated statements or claims that are not meant to be taken literally. ▪ Imperatives - A command. ▪ Metaphor - A comparison which says one thing is the other. ▪ Rhetorical Questions - A question which does not require an answer 		<p>STRUCTURING PERSUASIVE WRITING</p>  <pre> graph TD A[Introduction • Introduce your argument to your audience.] --> B[Ethos • Establish your ethos. Why are you the best person to present this argument?] B --> C[Argument #1: Logos • Present and explain the first point of your argument. Use logos to make your argument clear.] C --> D[Counterargument • Consider what the opposing side would say and explain why their point of view is wrong.] D --> E[Argument #2: Pathos • Present and explain the second point of your argument. Use pathos to make your audience feel a particular emotion.] E --> F[Conclusion • Conclude your argument using logos, pathos and ethos for the final time.] </pre>		<p>VOCABULARY</p> <ul style="list-style-type: none"> Analogy Anecdote Maxim Rhetoric Sophists Theme Tone

English

Vocabulary- for reading		Vocabulary – for creative writing	Make your word choices sophisticated and ambitious.
Analytical verbs- use these instead of “shows/suggests” to create another level of analysis in reading responses.	Evokes, highlights, implies, reiterates, amplifies, insinuates, intensifies, heightens, hints, exposes, explores, reveals, symbolises, alludes to, depicts.	Verbs	Blocked, towered, rattled, bustling, buzzing, sprayed, huddles, nestled, glistening, burst, wriggling, bathed, littered, boomed, teeming.
Modal verb- use these to show tentative analysis or the strength of your opinion.	Might, Should, Could, May, Will, Must, Ought to	Emotions	Sad: Hollow, misery, choked, sobs, despair Happy: elated, pulse racing, animated, radiant Concentrating: resolved, gritted teeth, furrowed Caring: warm, patient, soft, silky voice, squeeze Relieved: eased, tingled, uttered, relaxed Angry: vicious, furious, clenched, hammered Cold: cunning, sinister, venomous, squinted
Sentence structures		Spellings	Know your errors and weak words and learn them.
Simple- sentence which makes sense on its own and contains a verb and a subject.	The dog sat in his bed.	Homophones	Here/hear there/their/they’re your/you’re see/sea To/two/too which/witch weather/whether Were/we’re where/wear
Compound- where two complete sentences are joined together using and, but, or	The dog sat in his bed but he wanted to go for a walk.	Punctuation	
Complex- where there is one complete sentence with at least one <i>subordinate clause</i> , which will not make sense on its own.	The dog, <i>who was very fat</i> , sat in his bed. The dog sat in his bed, <i>whilst chewing</i> a bone. <i>After eating some toast</i> , the girl was full. <i>Consequently</i> , he knew he had to leave. <i>Running away quickly</i> , the mouse survived.	Get the basic 100% right: . , ? ‘ !	A sentence must end with ? . or ! Commas: use to separate items in a list; use to mark clauses in complex sentences. Apostrophes: use to show missing words when joining two words together e.g. do not- don’t; use to show possession e.g. The flower’s petals were beautiful.
Varying sentence starters	Connectives to show links between ideas: In addition, however, conversely, as well as, moreover Verbs ending in -ing: cycling, crying, laughing Adverbs and adverbial phrases: Carefully, Slowly Prepositional phrases: Across the road... Before I could think... Feelings: Happily, dejectedly, rudely,	Added extras: : ; ... - ()	Colon to introduce a list of items. Semi-solon to separate items in a longer complex list or to show close relationship between two complete sentences. Ellipsis to create a pause and build tension Dashes to add extra detail to a sentence Brackets to add extra detail within a sentence. Works well as voice of narrator or sarcasm.

Food and nutrition – Food sustainability

Sustainable food

- Sustainable is food that is safe and healthy.
- It's produced without hazardous pesticides and chemicals, non-essential antibiotics
- **Nutrition** is also playing an increasing role in defining sustainable foods. There's a growing movement towards plant-based foods.
- **Sustainable food isn't only about the food itself.** It's a combination of factors including how the food is produced, how it's distributed, how it's packaged and how it's consumed.

Food miles

- Food miles, or how far a food has travelled, plays a large role.
- The rise in food miles has led to increases in the environmental, social and economic burdens associated with transport. These include carbon dioxide emissions, air pollution, congestion, accidents and noise.
- Resource usage, environmental impact and animal agriculture all affect sustainability. As do health considerations and social and economic impact.

SUSTAINABLE FARMING PRACTICES

- **Food production** needs to be profitable. Otherwise, farmers and producers would go out of business. But this doesn't have to mean mass scale food production that's bad news for animals and the environment.
- Sustainable farming aims to maintain or increase output, while increasing the environmental benefits.
- Such farming requires an understanding of the surrounding ecosystem. This means it will protect the diversity of our native plants and animals while meeting the needs of the farm and its production system.
- Farming that aims to be sustainable has to protect biodiversity. It has to be beneficial to plants, animals and the environment. Sustainable farming also has to protect soil fertility for future food production.
- Thankfully an increased number of farms and farmers are moving to more sustainable farming practices.

- **Sustainable agriculture** supports organic and low carbon food production. It also avoids the use of artificial fertilisers and pesticides as well as genetically modified organisms.
- Farms that are sustainable also make use of better farming practices.. These include crop rotation and avoiding the use of monocrops.
- Planting varied crops helps with soil fertility and biodiversity. They also tend to manage pests with natural predators, grow their fields less and integrate crops and livestock.

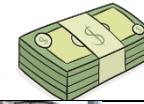
LOW ENVIRONMENTAL IMPACT

- **Sustainable food** aims to avoid damaging or wasting natural resources. It also minimises its contribution to climate change throughout the whole production process.
- The use of the earth's finite resources is also considered. This includes the use of energy in transportation and storage.
- The impact on the surrounding flora and fauna, waterways, air and sound quality is also considered. Ideally any negative impact is minimised while aiming to produce food in the most efficient and cost-effective way possible.



Health and Social Care – Human Lifespan Developments

<p><u>Understand human growth and development across life stages and the factors that affect it</u></p> <p><i>How do people grow and develop throughout their lives? How can factors such as lifestyle choices, relationships affect this? Understanding these processes is essential knowledge and understanding for health and social care practitioners.</i></p>						
<p><u>A1 Growth and development across life stages</u></p>		<p><u>A2 Factors affecting growth and development</u></p>				
<p><u>Lifestages</u></p> <ol style="list-style-type: none"> 1. Infancy (0 – 2 years) 2. Early childhood (3 – 8 years) 3. Adolescence (9 – 18 years) 4. Early adulthood (19 – 45 years) 5. Middle adulthood (46 – 65 years) 6. Later adulthood (65+ years) 	<p><u>Holistic Development</u></p> <ol style="list-style-type: none"> 1. Physical development – Physical growth and physiological change 2. Intellectual development – Developing thinking and language skill and common activities that promote learning and development 3. Emotional development – Developing feelings about self and other 4. Social development – Forming relationships 	<table border="1"> <tr> <td> <p><u>1. Physical factors</u></p> <ol style="list-style-type: none"> a) Genetic inheritance b) Diet and lifestyle choices c) Experience of illness and disease d) Appearance </td> <td> <p><u>2. Economic factors</u></p> <ol style="list-style-type: none"> a) Income/ wealth b) Material possessions </td> </tr> <tr> <td colspan="2"> <p><u>3. Social, Cultural and emotional factors</u></p> <ol style="list-style-type: none"> a) Educational experiences b) Culture, e.g. community involvement, religion, gender c) Influence of role models d) Influence of social isolation e) Personal relationship with friends and family  </td> </tr> </table>	<p><u>1. Physical factors</u></p> <ol style="list-style-type: none"> a) Genetic inheritance b) Diet and lifestyle choices c) Experience of illness and disease d) Appearance 	<p><u>2. Economic factors</u></p> <ol style="list-style-type: none"> a) Income/ wealth b) Material possessions 	<p><u>3. Social, Cultural and emotional factors</u></p> <ol style="list-style-type: none"> a) Educational experiences b) Culture, e.g. community involvement, religion, gender c) Influence of role models d) Influence of social isolation e) Personal relationship with friends and family 	
<p><u>1. Physical factors</u></p> <ol style="list-style-type: none"> a) Genetic inheritance b) Diet and lifestyle choices c) Experience of illness and disease d) Appearance 	<p><u>2. Economic factors</u></p> <ol style="list-style-type: none"> a) Income/ wealth b) Material possessions 					
<p><u>3. Social, Cultural and emotional factors</u></p> <ol style="list-style-type: none"> a) Educational experiences b) Culture, e.g. community involvement, religion, gender c) Influence of role models d) Influence of social isolation e) Personal relationship with friends and family 						
<p>Learning Aim B: Investigate how individuals deal with life events</p>						
<p><u>B1 Different types of life event</u></p>		<p><u>B2 Coping with change caused by life events</u></p>				
<p><u>1. Physical events</u></p> <ol style="list-style-type: none"> a) Accident/ injury b) Ill health 	<p><u>3. Life circumstances</u></p> <ol style="list-style-type: none"> a) Moving house, school or job b) Exclusion from education c) Redundancy d) Imprisonment e) Retirement 	<p><u>1. How individuals adapt to these changes</u></p> <p><u>2. Sources of support</u></p> <ol style="list-style-type: none"> a) Family, friends, partners b) Professional carers and services c) Community groups, voluntary and faith-based organisations 				
<p><u>2. Relationship changes</u></p> <ol style="list-style-type: none"> a) Entering a relationship b) Marriage c) Divorce d) Parenthood e) Bereavement 		<p><u>3. Types of support</u></p> <ol style="list-style-type: none"> a) Emotional b) Information advice c) Practical help, e.g. financial assistance, childcare, transport 				



Geography – Manchester

Social—people

Economic—money and jobs

Environmental—natural world

Key words

- Brownfield site** - a site that has previously been used.
- Dereliction** - abandoned buildings and wasteland.
- Greenfield** - a site that has never been built on before.
- Regeneration** - improving and upgrading the environment.
- Social deprivation** - a lack of services, decent housing and adequate income.
- Urban greening** - increasing and preserving open space such as parks.



Why is Manchester an important city?

- The Greater Manchester area is the second most populous urban area in the UK.
- Known as the 'Capital of the North'.
- Cottonopolis – world's first industrial city.
- Airport - busiest airport outside of London.
- Commonwealth games in 2002
- Three Universities

	Opportunities	Challenges
S	<p>Cultural diversity Trafford centre - over 200 shops and 30 million visitors a year. Integrated transport - more trams, free bus travel for 16-18s contactless payment on Metrolink.</p>	<p>Deprivation and inequality Moss side and Didsbury Life expectancy 74 and 80 GCSE in maths and English 25% and 60%</p>
Ec	<p>Employment – Tertiary, IT and finance sectors have grown significantly. Salford Quays has seen huge investment.</p>	<p>Low skilled work in poorer areas. The poorest residents are being left behind as they often do not have the education to apply for the high paying jobs.</p>
En	<p>The Greening Manchester programme is a quest to become Britain's Greenest City. St. Peter's Square regeneration - 42 mature trees planted. Bridgewater basin floating ecosystems - introduction of 200m2 of floating plant islands.</p>	<p>Dereliction - Run down industrial buildings in city centre. Building on brownfield/ Greenfield - Brownfield sites fulfil less than half of the identified housing need Urban sprawl Waste - half a million tonnes of waste per year.</p>

Salford Quays: regeneration scheme

Why?

- After the docks closed, over 30% of people in the area were left unemployed.
- The area was so undesirable, house prices fell to £10,000 in some areas.
- By the early 1990s £280 million of government and private funding had been invested in the area.

What?

- In 2011 the BBC began a move from London to MediaCityUK.
- Lowry theatre and shopping mall.
- Imperial war museum.

Results?

- There are now more people employed in Salford Quays than when the docks were at their busiest.
- The sector is worth £3.1bn to Greater Manchester's economy.
- Social exclusion

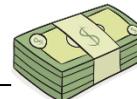


Geography – Living world

Social—people



Economic—money and jobs



Environmental—natural world

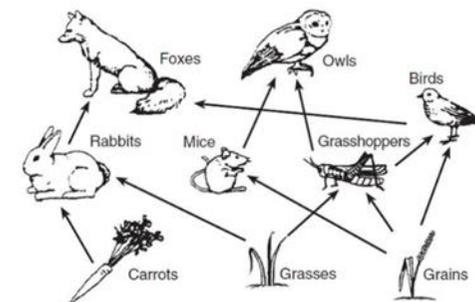


Key words

- Consumer**- organism that eats herbivores and/or plant matter.
- Ecosystem** - community of plants and animals that interact with each other.
- Ecotourism** -responsible travel that does not harm the environment.
- Irrigation** - artificially watering the land.
- Leaching** - the washing away of nutrients from the soil.
- Sustainability** – meeting the needs of the present without compromising future generations.

Ecosystems

Ecosystems take thousands of years to develop. If there is a change to one of the components there will be knock on effects for the whole ecosystem.



Tropical rainforest

- Located on or near to the equator.
- 2000mm of rainfall annually because of low pressure and air rising quickly.
- High and constant temperature all year round.
- Soils are surprisingly infertile because of the leaching of nutrients.
- High levels of biodiversity - over 50% of plant and animals live here.
- Plants have adapted to the conditions by having drip tip leaves, buttress roots, smooth bark and growing up to 50m to reach sunlight.

Hot deserts

- Located near the Tropics between 30N and 30S.
- Less than 250mm of rainfall annually because of high pressure and sinking air.
- Very high temperatures in the day but often below freezing at night.
- Soils are sandy or stony with little organic matter.
- Many animals are nocturnal
- Vegetation is low growing and sparse. Adaptations include small or spikey leaves to reduce water loss, long tap roots to reach water and growing slowly.

Deforestation in Malaysia

Causes	Effects
<ul style="list-style-type: none"> ▪ Logging – World’s largest exporter of tropical wood in the 1980s. ▪ Commercial farming – Largest exporter of palm oil. ▪ Energy development – The Bakun Dam flooded over 700km of forest. 	<ul style="list-style-type: none"> ▪ Loss of unique biodiversity. ▪ Contribution to climate change. ▪ Soil erosion. ▪ Economic gains – 600,000 jobs created in the palm oil industry. ▪ Improved infrastructure.

The Thar Desert

Opportunities	Challenges
<ul style="list-style-type: none"> ▪ Tourism - camel safaris. ▪ Energy – Jaisalmer Wind Park is the largest in India. ▪ Mineral extraction – Gypsum and limestone exported to parts of India and all over the world. 	<ul style="list-style-type: none"> ▪ Extreme temperatures. ▪ Water shortages due to population growth. ▪ Accessibility – limited road network.

How can we manage rainforests sustainably?



- Selective logging and replanting
- Conservation and education
- Ecotourism
- International agreements
- Debt reduction

Desertification – land becomes drier and less fertile.

Causes of Desertification

- Deforestation
- Over cultivation
- Lack of rainfall



Management strategies

- Africa’s Green Wall
- National Parks
- Soil management

History

<p><u>HER-Story</u></p> <p>This terms work focuses on the role of women in History, with particular focus on Queen Elizabeth I. The start of the study will be a Historical Dinner Party, where you become an influential woman from History. Below are some examples of possible guests. Research and find out more about them.</p>			<p><u>The Tudors</u></p>			
<p><u>Jane Austen (1775 – 1817)</u></p> <p>Defined an entire literary genre with her social observations and humour. Born into a family of eight children in England, Austen started writing her now classic novels, such as Pride and Prejudice and Sense and Sensibility, in her teens.</p>	<p><u>Anne Frank (1929 – 1945)</u></p> <p>Jewish girl famous for her diary that she wrote whilst her family hid in a secret annex with four other people throughout WW2 but were discovered and sent to concentration camps in 1944. Out of the Frank family, only Anne’s father survived, and he made the decision to publish Anne’s diary.</p>	<p><u>Maya Angelou (1928 – 2014)</u></p> <p>One of the most influential women in American history and was a poet, singer, memoirist, and civil rights activist, whose award-winning memoir I Know Why the Caged Bird Sings made literary history as the first non-fiction best-seller by an African-American woman.</p>	<p>Henry VI</p> 	<p>I ruled from 1485-1509</p>	<p>I married Elizabeth of York and had 4 children: Arthur, Henry, Margret and Mary.</p>	<p>I was the first Tudor monarch. I fought in the War of the Roses.</p>
<p><u>Rosa Parks (1913 – 2005)</u></p> <p>Rosa Parks was on a bus in Montgomery, Alabama, USA in 1955, when the bus driver asked her to stand up and give her seat to a white man. Parks, a black seamstress, refused and in doing so sparked an entire civil rights movement in America.</p>	<p><u>Malala Yousafzai (1997 -)</u></p> <p>In 2012, at the age of 15, Malala publicly spoke out on women’s rights to education and against the Taliban and as a result, a gunman boarded her school bus and shot the young activist in the head. She survived, moved to the UK and became the youngest ever recipient of the Nobel Peace Prize in 2014, at 17 years old.</p>	<p><u>Marie Curie (1867 – 1934)</u></p> <p>She was the first person (not woman) who has won two separate Noble Prizes, one for physics and another for chemistry, and to this day Curie is the only person, regardless of gender, to receive Noble prizes for two different sciences.</p>	<p>Henry VIII</p> 	<p>I ruled from 1509-1547</p>	<p>My father was Henry VII. I married 6 times and had 3 children, Mary, Elizabeth and Edward.</p>	<p>I broker with the roman Catholic Church and had Parliament declare me supreme head of the Church of England, starting the English reformation</p>
			<p>Edward VI</p> 	<p>I ruled from 1547-1553</p>	<p>My father was Henry VIII and my mother was Jane Seymour. I never married.</p>	<p>I was crowned king when I was only 9 years old. I was a very sick child and died when I was 15.</p>
			<p>Lady Jane Grey</p> 	<p>I only ruled for 9 days in 1553</p>	<p>My great-great grandfather was Henry VII. I was married to Lord Guildford Dudley but I had no children.</p>	<p>I was only Queen for 9 day. Mary locked me in the Tower of London and I was beheaded</p>
			<p>Mary I</p> 	<p>I ruled from 1553-1558</p>	<p>My mother was Catherin of Aragon. I married the King of Spain, Philip II, but we had no children</p>	<p>I was known as ‘Bloody Mary’ as I killed so many people at the stake because of their religion. I was Catholic.</p>
			<p>Elizabeth I</p> 	<p>I ruled from 1558-1603</p>	<p>My mother was Anne Boleyn and Henry VIII was my father. I never married.</p>	<p>My reign lasted 45 years and was known as the ‘golden age’. I kept very clean by having one bath every month. I was Protestant.</p>
<p>Want to find out more? This website tells you about 100 women who changed the world https://www.historyextra.com/100-women/100-women-results-what-the-experts-say/</p>						

History (Who was Queen Elizabeth and what problems did she face?)

Elizabeth's background and character

- She had been 3rd in line to the throne behind Edward VI and Mary I
- Due to being female, as well as illegitimate (*born outside of marriage*), Elizabeth was not expected to become Queen
- Illegitimate children were not allowed to inherit, so it weakened her claim to the throne and some thought Mary, Queen of Scots had more rights to it.

The Elizabethan Court

- The 'Court' was the centre of Elizabethan social life. They travelled with her, and political power relied on direct access to the Queen. She had her favourites such as Robert Dudley who she made Earl of Leicester, and may have considered marrying.
- She used patronage (*gave people land or titles*) to ensure loyalty and stability. This helped ensure political stability as all members of the elite felt like they had a chance to be rewarded off the Queen.

The Elizabethan Government

- The Privy Council was in charge of the day to day running of the country. It was led by the Secretary of State. The Queen had the most power, and didn't have to follow their advice if she did not want.
- William Cecil was her closest advisor, and served as Secretary of State twice. It was said at times, she would listen to no one except Cecil. He had a key role in developing the Poor Laws and religious policies.
- Sir Francis Walsingham also served as Secretary of State, and was known as her 'spymaster', with 'eyes and ears everywhere'. He helped establish the navy and also had a role in Mary's execution.
- Other parts of the government included Parliament, Lord Lieutenants and Justices of the Peace.
- Sometimes Parliament didn't agree with Elizabeth and would try and force her to change her mind by threatening to refuse taxation, but Elizabeth never gave in and used the Privy Council and her own skills to manage the situation.

What was life like in Elizabethan England? Was it a 'Golden Age'?**Elizabethan Theatres**

- At the start of her reign there were no theatres, but this was ended up being a 'Golden Age' for theatre.
- They were available for rich and poor. A famous theatre, the Globe held 3000 people. People were positioned according to their status - groundlings at the bottom, and rich were higher up – The 'Great Chain of Being'
- Shakespeare wrote tragedies (Romeo and Juliet), historical (Richard III) and comedies (Midsummers Night Dream')
- The Theatre faced some opposition, such as the Puritans who felt it was sinful. Puritans were very strict Protestants.

Elizabethan Sailors and Exploration

- Explorers were attracted by economic opportunities – they wanted to get rich!
- Exploring the World led to slavery, colonisation, conflict with Spain.
- Famous explorers included John Hawkins, Sir Francis Drake and Sir Walter Raleigh.
- Profits were shared with Elizabeth. This helped Elizabeth get rich and also led to new foods such as tomatoes and potatoes.
- Exploration was not always successful. Bad weather could blow ships off course, whilst Raleigh's attempt to colonise Virginia was unsuccessful.

Poverty

- Religious changes meant there was less support for the poor. Between 1536-41, Henry VIII had closed down England's monasteries who had provided care and support for the sick.
- England's population had grown from 3 to 4 million during Elizabeth's reign. However there were also food shortages and competition for land, so prices went up, forcing people into poverty.
- There were developments in agriculture – enclosures – that led to many leaving farms to live in towns, causing more problems in the cities.

Elizabeth's response to the Problems of Poverty

- From the 1560's Poor Laws were introduced which placed a tax to raise money. Further Poor Laws passed in 1597 and 1601. These Poor Laws remained for the next 300 years!
- This money was used to provide, hospitals, housing and apprenticeships to the 'deserving poor'
- The 'Underserving Poor' were whipped and sent back to their home parish, or even arrested.

Want to find out more? This is a great overview of Queen Elizabeth I with information to read, videos and tests <https://www.bbc.co.uk/bitesize/guides/zcn4jxs/revision/1>

I-Media

<p>Mood Board</p> <p>Purpose:</p> <ul style="list-style-type: none"> To generate visual ideas about how the campaign or product could look. To develop a feel for the Campaign/Product style. To show the client the fonts, images, colours to be used in the campaign. Can be Digital (created on computer) or Physical. <p>Audience: Client, Design team</p> <p>Do's and Don't</p> <p>Don't Layout in a Grid / table. Do Group images into themes or concept (Water images together, Fire images together) Do Add Tag Lines.</p> <p>Content:</p> <p>Title, Fonts, Text Boxes, Pictures (Drawings/images) Logo, Colours. (NEVER JUST SAY "TEXT")</p> <p>Web site or Web advert</p> <p>Movies, Sounds</p> <p>TV Advert/Movie/animation</p> <p>Costume Ideas Location Ideas</p> <p>Video Game</p> <p>Costume Ideas Location Game Play</p>	<p>Story Board</p> <p>Purpose: Breaks down a film/animation into separate scene. It will have a flow of scenes that follow a timeline. Allows the Editor to piece together the different scenes into the correct order,</p> <p>Audience: Film Crew, helps them plan out the scenes or Editor helps them put the movie together (Not Production team)</p> <p>WHAT TO INCLUDE ON STORYBOARD?</p> <table border="1"> <tr> <td>Numbered Scenes</td> <td>Short Description</td> </tr> <tr> <td>Camera Angles Camera Movement Timings</td> <td>Locations Camera Type Transition</td> </tr> <tr> <td>Lighting</td> <td>Scene Sketch</td> </tr> <tr> <td>Sounds (dialogue, effects)</td> <td>Transitions Colouring</td> </tr> </table> <p>Even a short movie may be shot out of order, a story board means different film crews can work on different scenes and know what each one is doing. Afterwards the editing team can put the scenes together in the correct order</p>	Numbered Scenes	Short Description	Camera Angles Camera Movement Timings	Locations Camera Type Transition	Lighting	Scene Sketch	Sounds (dialogue, effects)	Transitions Colouring	<p>Script</p> <p>Purpose:</p> <p>Provide lines for characters so they know what to say Provide details about expressions or actions Provide stage directions for actors and production crew If the scene is set inside (Interior) or outside (Exterior) the specific location, and the time of day.</p> <p>Audience: Film Crew, Actors, Director</p> <p>Content of a Script</p> <ul style="list-style-type: none"> Location: Set / Slug line (INT / EXT) Direction (Tells the actors what to do, you cannot direct an animal) Character names (centred) Speech / Dialogue between characters(centred) Sound and sound effects (for actions, events) Shot type (close up, mid, long, over shoulder, two shot) Camera movement (pan, tilt, zoom) 	<p>File Types</p> <table border="1"> <thead> <tr> <th>File</th> <th>Characteristics and Properties</th> </tr> </thead> <tbody> <tr> <td>Tiff</td> <td>High resolution graphic that can produce high quality prints</td> </tr> <tr> <td>JPG</td> <td>Uses lossy compression to reduce its file size so quick to upload</td> </tr> <tr> <td>PSD</td> <td>Proprietary format for Adobe software applications</td> </tr> <tr> <td>PNG</td> <td>Keeps transparencies so it can be used on different coloured backgrounds.</td> </tr> <tr> <td>GIF</td> <td>Can be animated and loads quickly</td> </tr> <tr> <td>SVG</td> <td>Vector graphic that can be scaled without losing quality. (Not for Photographs)</td> </tr> </tbody> </table>	File	Characteristics and Properties	Tiff	High resolution graphic that can produce high quality prints	JPG	Uses lossy compression to reduce its file size so quick to upload	PSD	Proprietary format for Adobe software applications	PNG	Keeps transparencies so it can be used on different coloured backgrounds.	GIF	Can be animated and loads quickly	SVG	Vector graphic that can be scaled without losing quality. (Not for Photographs)
Numbered Scenes	Short Description																								
Camera Angles Camera Movement Timings	Locations Camera Type Transition																								
Lighting	Scene Sketch																								
Sounds (dialogue, effects)	Transitions Colouring																								
File	Characteristics and Properties																								
Tiff	High resolution graphic that can produce high quality prints																								
JPG	Uses lossy compression to reduce its file size so quick to upload																								
PSD	Proprietary format for Adobe software applications																								
PNG	Keeps transparencies so it can be used on different coloured backgrounds.																								
GIF	Can be animated and loads quickly																								
SVG	Vector graphic that can be scaled without losing quality. (Not for Photographs)																								
<p>Mind Map</p> <p>Purpose: Quickly generate outline ideas and to Link or connect aspects of ideas. Based on Central Idea (Hub) and has Branches off for different aspect using Sub-Nodes</p> <p>Audience: Design team</p> <p>Content</p> <p>Central Idea (Hub) Lines (arrows) to link the Nodes and Sub nodes Linked to related ideas (Sub node) The idea in a sub node should be directly linked to the Node.</p> <p>Video file formats</p> <table border="1"> <thead> <tr> <th>File</th> <th>Properties</th> </tr> </thead> <tbody> <tr> <td>.mp4</td> <td>Compressed format for good quality/small file size video</td> </tr> <tr> <td>.mov</td> <td>Apple QuickTime movie format</td> </tr> <tr> <td>.wav</td> <td>Windows media video format for playback on computer</td> </tr> </tbody> </table>	File	Properties	.mp4	Compressed format for good quality/small file size video	.mov	Apple QuickTime movie format	.wav	Windows media video format for playback on computer	<p>Work Plan</p> <p>Provide timescales so you don't spend too long on one thing. Allow projects to meet deadline using checkpoints to stay on track</p> <p>Advantages:</p> <p>Allows team leader to track all member's tasks are being done on time. Different team members know what to do to help them finish project</p>	<p>Unexpected events</p> <p>Equipment failure Health & Safety concerns Conditions not correct for filming Content: Tasks, Activities, Duration, Deadlines, Milestones; Contingencies, Resources, Budget Contingency - extra time built in (plus extra costs)</p>	<p>Legislation</p> <p>Trademark ™ : When a company has licenced their Name/ Logo so they own it. Other companies must ask for permission to use the name. The Trademark Owner can sell the rights to use the name / Logo. (Lego has bought the Trademark Rights to Star Wars) Copyright: © A company or individual can register an image, song, idea or product. Another company would have to contact the copyright holder and ask for permission to use it. Creative Common: Ability to use a person's work while following a set of clear rules. (Cannot make money, cannot alter original)</p>														
File	Properties																								
.mp4	Compressed format for good quality/small file size video																								
.mov	Apple QuickTime movie format																								
.wav	Windows media video format for playback on computer																								
<p>Visualisation</p> <p>Purpose: A Hand Drawn Design that will plan the layout of a still image in a visual manner. Show how the finished item may look. Magazine cover, website, multimedia product.</p> <p>Audience: the designer or developer of the final product.</p> <p>Content</p> <table border="1"> <tr> <td>Images</td> <td>Annotations</td> </tr> <tr> <td>Logos Fonts</td> <td>Colour scheme</td> </tr> <tr> <td>Quotes</td> <td>Dimensions</td> </tr> </table>	Images	Annotations	Logos Fonts	Colour scheme	Quotes	Dimensions	<p>Target audience</p> <p>There are many ways to break down the audience of a product. But these are the six you must know and use.</p> <ul style="list-style-type: none"> Income: target an audience that can afford your Product Age: different ages appeal e.g. children different from adults (consider colour, language etc.) Gender: male and female Location: Audience live a certain distance from store or campaign. Ethnicity/Race/Religion: This will affect a person's attitudes and outlook Accessibility/Disability: the Campaign/Product is accessible to as many people as possible 	<p>Client requirements</p> <p>Also known as brief or specification. Must meet their requirements otherwise your work will not be fit for purpose.</p> <p>Done by:</p> <ul style="list-style-type: none"> Face to face discussion Script <p>Specification Written brief</p> <ul style="list-style-type: none"> Content (look at brief and use words given): Purpose Timescale Target audience Budget Content (information / images) Theme / style / genre Colour scheme (use house style for consistency) 																	
Images	Annotations																								
Logos Fonts	Colour scheme																								
Quotes	Dimensions																								

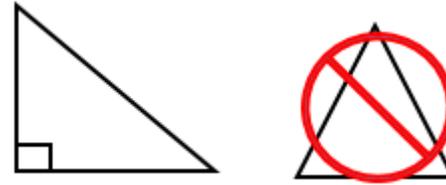
Performing Arts - Drama

PERFORMANCE:	TECHNICAL SKILLS:	KEYWORDS:	
Emphasis	Status	Stimulus	Your starting point and approach to a performance piece
Projection	Staging – choosing and using the appropriate staging	Social skills	Compromise, share ideas etc
Focus	Character/ use of both vocal and physical characteristics	Research	Independent research to bring to rehearsal
Accurate interpretation	Using the space/ physical contact/movement/ Spatial awareness/audience	Lighting	Create an atmosphere for your performance
Use of space	Coordination	Sound	Sound effects -Live & Pre-recorded
Appreciation of sound accompaniment	Voice – manipulation/ pitch/tone/rhythm/pace/volume/choral/ soundscapes	Health & Safety	Rehearsal space & performance space
Musicality	Blocking/Choral work	Set Design	Backdrops & props
Facial expression	Stamina	Advertising	Promoting your performance eg media
Quality	Emotional Engagement	Costume	Selecting appropriate performance clothing
Timing	Stage Combat/ safely performing physical actions.	Staging	Types of stages and performance space
Body Language	The ability to reproduce movement accurately	Rehearsal Schedules	Planning & working to deadline
	Whole body participation and/or isolation	Professional Conduct	Punctuality, attendance, working effectively with others
	Gestures or traits to a character.	STYLES AND PRACTITIONERS:	
	Awareness of, and relationship to other characters and performers / proxemics	Naturalism	Stanislavski, emotion memory
		Epic Theatre	Bertolt Brecht, alienation devices
		Physical Theatre	DV8, Gecko theatre companies

Pythagoras' Theorem

Pythagoras' Theorem is a relationship between sides of a triangle

Pythagoras' Theorem **only** applies to right angled triangles

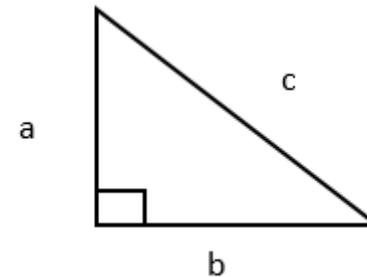


Pythagoras theorem states that

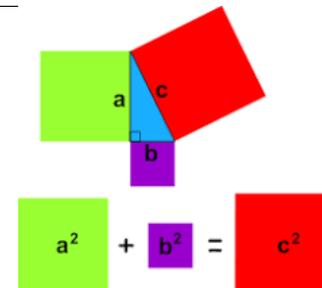
$$a^2 + b^2 = c^2$$

Where:

c must be the longest side (called the Hypotenuse).
 a and b can be either of the two remaining sides



Pythagoras' Theorem can be represented in many different ways – including using the area of squares on each side of the triangle



Maths

Fractions, Decimals & Percentages

To convert **decimals to fractions**:

- Write the number as a decimal divided by 1, then multiply by 10 until you get a whole number

$$\begin{array}{c} \times 100 \\ \longrightarrow \\ \frac{0.75}{1} = \frac{75}{100} \\ \longrightarrow \\ \times 100 \end{array}$$

- Simplify

$$\begin{array}{c} \div 5 \quad \div 5 \\ \rightarrow \quad \rightarrow \\ \frac{75}{100} = \frac{15}{25} = \frac{3}{5} \\ \div 5 \quad \div 5 \\ \rightarrow \quad \rightarrow \end{array}$$

To convert **fractions to decimals** we can use the bus stop method

$$\frac{3}{4} = 4 \overline{) 3.300}$$

$$\frac{3}{4} = 4 \overline{) 3.3020}$$

$$\frac{3}{4} = 4 \overline{) 3.3020}$$

Fraction	Percentage	Decimal
1	100%	1
$\frac{1}{2}$	50%	0.5
$\frac{1}{3}$	33.3%	0.333 = 0.$\dot{3}$
$\frac{1}{4}$	25%	0.25
$\frac{1}{5}$	20%	0.2
$\frac{1}{6}$	16.67%	0.166.. = 0.1$\dot{6}$
$\frac{1}{8}$	12.5%	0.125
$\frac{1}{10}$	10%	0.1
$\frac{1}{12}$	8.33%	0.833 = 0.8$\dot{3}$

To convert **decimals to percentages**, multiply by 100

To convert **percentage to decimals**, divide by 100

Performing Arts – Dance: A Linha Curva

<u>A Linha Curva – Key information</u>	
Choreographer	Itzik Galili
Date	12th May 2009
Company	Rambert Dance Company
Dance Style	Samba, Capoeira and Contemporary
Stimulus	Brazilian culture. The title <i>A Linha Curva</i> which means <i>A Curved Line</i> in Portuguese
Dancers	28 (15 male/13 female)
Duration	23 minutes
Performance Environment	End Stage
Choreographic Approach	Created through improvisation work where dancers choreographed a short solo each of their favourite moves that stayed within the boundaries of their allocated space on a chequer grid board and these then became the motifs
Accompaniment	The music is written by Percossa, a percussion group based in Holland. The music, which includes vocal sounds, is played live by four percussionists and is influenced by Brazilian samba music. The dancers also contribute to the vocal sounds.
Structure	Distinct parts to the piece that are made up of big ensemble dance sections interspersed with scenes that have more of a sense of narrative and character. The big ensemble dance sections involve the dancers performing a series of repeated phrases in a number of different formations that are dictated by the grid-like, multi-coloured lighting. The more narrative scenes do not feature the grid lighting effect and it is during these sections that Galili explores the competitive nature of the males and how they relate to the women.
Choreographic Intention	Simply to have fun with a few contradictions as touched upon in the title. Large ensemble sections of vibrant Brazilian inspired movement are performed in regimental straight lines, creating a sense of samba parade. There are also a number of narrative sections that through the choreography present observations of how Brazilian men communicate with women, for example men in tribes hunting the girls as well as showing off and competing with each other.

Performing Arts – Dance: Performance and Interpretative skills:

<u>Physical/Technical skills</u>		<u>Performance/Interpretative skills</u>	
Focus & control	Concentrating on executing the movement accurately with full control of the body	Interaction with other performers	How effectively you communicate with others on stage
Expression	How much emotion and feeling you apply to the movement	Focus	Use of the eyes to enhance performance or interpretative qualities
Posture	The way the body is held	Confidence	Being certain of your abilities and evidencing this in your performance
Balance and Coordination	The ability to hold a steady position and to use a combination of parts of the body together efficiently	Energy and Stamina	Performing to the best of your physical ability and keeping this consistent throughout
Extension	The lengthening of body parts outwards. E.g. Straight arms and pointed toes	Awareness and appreciation of sound accompaniment/ musicality	The ability to make the unique qualities of the music evident in performance. Having an awareness of the beats and highlights within the music and complimenting/contrasting this with your movement.
Energy	How much physical effort you put into the dance	Rhythm and timing	Performing the correct movements at the correct time to compliment the music.
Dynamic range	Noticing and applying the correct quality to each movement. For example: sharp, soft, fluid etc.	Emphasis	The accents provided by the dancer at different moments throughout the dance
Accuracy	Performing the movements in the correct order with technical accuracy	Stage Presence	The ability to command the attention of a theatre audience
Alignment	Correct placement of body parts in relation to each other	Facial expression	Animating the face to engage with your audience/communicate the theme of your performance.
Flexibility	Projecting your movements outwards into the space with appropriate energy.	Use of space	How much space you use when dancing.
Rhythm	A strong, regular repeated pattern of movement	Awareness of the performance space and audience	Showing effective consideration of the space you are performing in as well as the target audience and where they are situated.
Facial expression	Animating the face to engage with your audience/communicate the theme of your performance.	Projection	The energy a dancer uses to connect with and draw in the audience.
Projection	Projecting your movements outwards into the space with appropriate energy.	Energy and commitment	Committing your full mental and physical ability to the dance consistently for the whole performance.
Stamina	Ability to maintain physical and mental energy over periods of time.		
Spatial Awareness	Being aware of the space around you as well as the shape, size, level and direction of the movement.		
Movement memory	Your ability to remember movement		

Performing Arts – Music

Key words and definitions		Key words and definitions	
Musical key words	Definition	Musical Key Words	Definition
Polyrhythm	Lots of rhythms playing at the same time	Form	How a piece of music is split into sections and organised
Ostinato	Repeated rhythmic pattern	Concerto	A piece of music written for a particular main instrument which is accompanied by the orchestra
Call and Response	Interaction between one group or person and one group. The first group or person will call or sing a phrase, and the second group will respond.	Symphony	A long piece of composed orchestral music which can last between 90 minutes and 2 hours long.

Polyrhythms
When you combine different rhythms and play them at the same time they become polyrhythms and can create really interesting and exciting musical patterns

	1	2	3	4	5	6	7	8
Beat 1	●		●	●		●		●
Beat 2		●	●		●	●		●
Beat 3	●	●		●			●	
Beat 4								



Performing Arts – Music

Classical – 1730 - 1820

Famous Classical pieces:

Tocatta and Fugue in D minor
Moonlight Sonata
Nutcracker Suite

Famous Classical composer:

Johann Sebastian Bach
Amadeus Mozart
Ludwig Van Beethoven

Instrumentation:

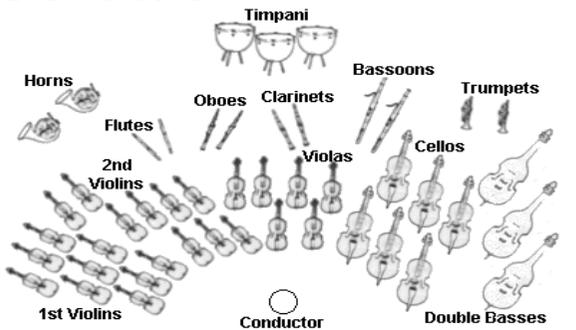
Instruments of the orchestra

Famous for:

Symphonies
Concerto
Sonata

Different Forms:

AB Binary Form
ABA Ternary Form
ABACA Rondo Form



Romantic – 1830 – 1900

Famous Romantic Pieces:

Nocturne
Clair De Lune
Three romances for violin and piano

Famous Classical composer:

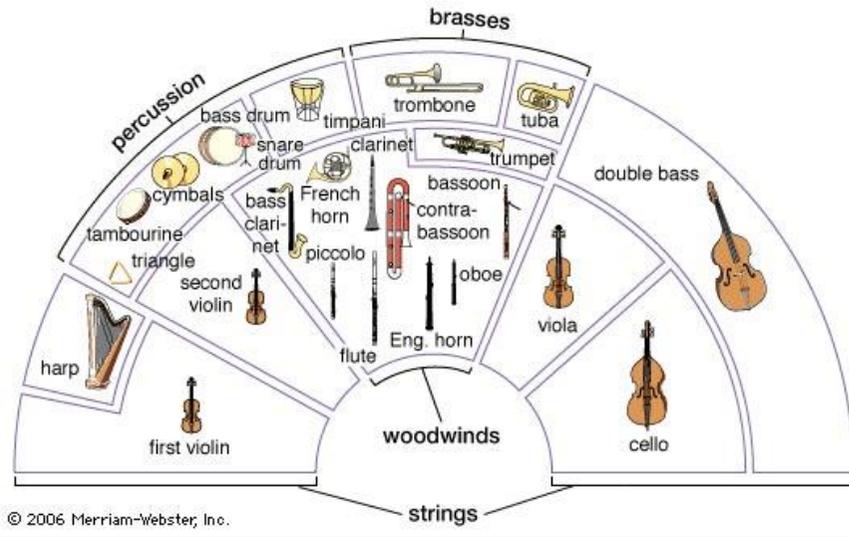
Frederic Chopin
Claude Debussy
Clara Schumann

Instrumentation:

Instruments of the orchestra

Famous for:

Dramatic orchestration
Programmatic - based on narrative and story telling.



© 2006 Merriam-Webster, Inc.

African Drumming

Famous African songs:

Teacher Don't Teacher me
nonsense
Ai Du
M'Bife

Famous Classical composer:

Fela Kuti
Ali Farka Toure
Amadou and Mariam

Instrumentation:

Djembe
Kora
Ngoni
Mbira
Shekere
Kalimba
Famous for:
Polyrhythms
Bass, Tone, Slap
Ostinato
Call and Response



Figure 1 A Kora

Physical Education

<p><u>Shotput</u></p> <table border="1"> <thead> <tr> <th><u>Rules</u></th> <th><u>Skills & Teaching Points</u></th> </tr> </thead> <tbody> <tr> <td> <ol style="list-style-type: none"> Shot must be placed close to the neck resting on the shoulder Shot must be released above shoulder height You must not step out of the circle. </td> <td> <ol style="list-style-type: none"> Clean palm, dirty neck Weight over back leg, slight bend in the knee 'Chin, knee, toe, twist and throw' </td> </tr> </tbody> </table>		<u>Rules</u>	<u>Skills & Teaching Points</u>	<ol style="list-style-type: none"> Shot must be placed close to the neck resting on the shoulder Shot must be released above shoulder height You must not step out of the circle. 	<ol style="list-style-type: none"> Clean palm, dirty neck Weight over back leg, slight bend in the knee 'Chin, knee, toe, twist and throw' 	<p><u>Track</u></p> <table border="1"> <thead> <tr> <th><u>Rules</u></th> <th><u>Skills & Teaching Points</u></th> </tr> </thead> <tbody> <tr> <td> <ol style="list-style-type: none"> Stay low when accelerating Head in a neutral position Run on balls of feet Arms move from lip to hip Knees come in line with hips </td> <td> <ol style="list-style-type: none"> Maintain your speed Control your breathing Save some energy for a burst at the end of the race </td> </tr> </tbody> </table>		<u>Rules</u>	<u>Skills & Teaching Points</u>	<ol style="list-style-type: none"> Stay low when accelerating Head in a neutral position Run on balls of feet Arms move from lip to hip Knees come in line with hips 	<ol style="list-style-type: none"> Maintain your speed Control your breathing Save some energy for a burst at the end of the race 	<p><u>Relay</u></p> <table border="1"> <thead> <tr> <th><u>Rules</u></th> <th><u>Skills & Teaching Points</u></th> </tr> </thead> <tbody> <tr> <td> <ol style="list-style-type: none"> You must not set off before the starter pistol has sounded You cannot drop the baton The changeover must take place within the 20m zone </td> <td> <ol style="list-style-type: none"> Runners carry the baton at the bottom end runner holds the baton vertically with an extended arm when nearing the receiving runner The receiving runner standing start position and with their hands </td> </tr> </tbody> </table>		<u>Rules</u>	<u>Skills & Teaching Points</u>	<ol style="list-style-type: none"> You must not set off before the starter pistol has sounded You cannot drop the baton The changeover must take place within the 20m zone 	<ol style="list-style-type: none"> Runners carry the baton at the bottom end runner holds the baton vertically with an extended arm when nearing the receiving runner The receiving runner standing start position and with their hands
<u>Rules</u>	<u>Skills & Teaching Points</u>																
<ol style="list-style-type: none"> Shot must be placed close to the neck resting on the shoulder Shot must be released above shoulder height You must not step out of the circle. 	<ol style="list-style-type: none"> Clean palm, dirty neck Weight over back leg, slight bend in the knee 'Chin, knee, toe, twist and throw' 																
<u>Rules</u>	<u>Skills & Teaching Points</u>																
<ol style="list-style-type: none"> Stay low when accelerating Head in a neutral position Run on balls of feet Arms move from lip to hip Knees come in line with hips 	<ol style="list-style-type: none"> Maintain your speed Control your breathing Save some energy for a burst at the end of the race 																
<u>Rules</u>	<u>Skills & Teaching Points</u>																
<ol style="list-style-type: none"> You must not set off before the starter pistol has sounded You cannot drop the baton The changeover must take place within the 20m zone 	<ol style="list-style-type: none"> Runners carry the baton at the bottom end runner holds the baton vertically with an extended arm when nearing the receiving runner The receiving runner standing start position and with their hands 																
<p><u>Javelin</u></p> <table border="1"> <thead> <tr> <th><u>Rules</u></th> <th><u>Skills & Teaching Points</u></th> </tr> </thead> <tbody> <tr> <td> <ol style="list-style-type: none"> You must hold the Javelin at the grip The tip must hit the ground first You must not step over the line during and after your throw </td> <td> <ol style="list-style-type: none"> Feet slightly wider than shoulder width apart Throwing arm straight parallel to the body. Elbow stays high, aim to throw the javelin over your head </td> </tr> </tbody> </table>		<u>Rules</u>	<u>Skills & Teaching Points</u>	<ol style="list-style-type: none"> You must hold the Javelin at the grip The tip must hit the ground first You must not step over the line during and after your throw 	<ol style="list-style-type: none"> Feet slightly wider than shoulder width apart Throwing arm straight parallel to the body. Elbow stays high, aim to throw the javelin over your head 	<p><u>Discus</u></p> <table border="1"> <thead> <tr> <th><u>Rules</u></th> <th><u>Skills & Teaching Points</u></th> </tr> </thead> <tbody> <tr> <td> <ol style="list-style-type: none"> An athlete cannot touch the ground outside of the circle Disc must land inside the boundary, The circle must have a diameter of 2.5m </td> <td> <ol style="list-style-type: none"> Loose grip, discus resting in fingertips Weight over back leg with slight bend in the knee Palm faces down, arm straight, release discus at 45-degree angle </td> </tr> </tbody> </table>		<u>Rules</u>	<u>Skills & Teaching Points</u>	<ol style="list-style-type: none"> An athlete cannot touch the ground outside of the circle Disc must land inside the boundary, The circle must have a diameter of 2.5m 	<ol style="list-style-type: none"> Loose grip, discus resting in fingertips Weight over back leg with slight bend in the knee Palm faces down, arm straight, release discus at 45-degree angle 	<p><u>High Jump</u></p> <table border="1"> <thead> <tr> <th><u>Rules</u></th> <th><u>Skills & Teaching Points</u></th> </tr> </thead> <tbody> <tr> <td> <ol style="list-style-type: none"> You must take off using one foot only If the bar is dislodged the jump will not count If you fail 3 jumps at the same height you will be disqualified </td> <td> <ol style="list-style-type: none"> Take a curved run up in the shape of a J Jump off your outside leg Kick your other leg like you're kicking a football </td> </tr> </tbody> </table>		<u>Rules</u>	<u>Skills & Teaching Points</u>	<ol style="list-style-type: none"> You must take off using one foot only If the bar is dislodged the jump will not count If you fail 3 jumps at the same height you will be disqualified 	<ol style="list-style-type: none"> Take a curved run up in the shape of a J Jump off your outside leg Kick your other leg like you're kicking a football
<u>Rules</u>	<u>Skills & Teaching Points</u>																
<ol style="list-style-type: none"> You must hold the Javelin at the grip The tip must hit the ground first You must not step over the line during and after your throw 	<ol style="list-style-type: none"> Feet slightly wider than shoulder width apart Throwing arm straight parallel to the body. Elbow stays high, aim to throw the javelin over your head 																
<u>Rules</u>	<u>Skills & Teaching Points</u>																
<ol style="list-style-type: none"> An athlete cannot touch the ground outside of the circle Disc must land inside the boundary, The circle must have a diameter of 2.5m 	<ol style="list-style-type: none"> Loose grip, discus resting in fingertips Weight over back leg with slight bend in the knee Palm faces down, arm straight, release discus at 45-degree angle 																
<u>Rules</u>	<u>Skills & Teaching Points</u>																
<ol style="list-style-type: none"> You must take off using one foot only If the bar is dislodged the jump will not count If you fail 3 jumps at the same height you will be disqualified 	<ol style="list-style-type: none"> Take a curved run up in the shape of a J Jump off your outside leg Kick your other leg like you're kicking a football 																

Physical Education

<p><u>Leadership Responsibilities</u></p> <p>Knowledge of activity Leaders must have good knowledge of the rules of the sport they are coaching. They should also understand the tactics and coaching points for the different skills required in the sport</p> <p>Enthusiasm for activity A sports leader has to show an appropriate amount of enthusiasm and motivation for the activity they are leading.</p> <p>Knowledge of safety Leaders should have knowledge of how to keep equipment safe, treat injuries and have risk assessments for all activities.</p> <p>Knowledge of child protection issues Safeguarding, or protecting children from harm, is a major consideration for any sporting leader.</p> <p>Knowledge of basic first aid Sports leaders have often attended first aid awareness training to enable them to use basic first aid in the event of someone getting injured.</p>	<p><u>Leadership styles</u></p> <p>Autocratic</p> <ul style="list-style-type: none"> ▪ Sole leader and make all of the decisions ▪ Particularly useful when there are safety concerns if the activity is dangerous <p>Democratic</p> <ul style="list-style-type: none"> ▪ Consult the group when making decisions ▪ Look for consensus and are willing to listen to others' views ▪ Take into others' opinions before making a decision <p>Laissez-faire</p> <ul style="list-style-type: none"> ▪ Leader does not intervene and allows the activity to follow its own, natural course. ▪ The leader may do nothing at all and feel relaxed about what is happening at that specific time.
<p><u>Sports leadership roles</u></p> <p>Captains Managers Teachers Coaches Expedition leaders Role models</p>	

PHSE & Citizenship

Key words**I Matter**

1. **Emotional Health:** People who are in control of their emotions and their behaviour. They are able to handle life's challenges, build strong relationships, and recover from setbacks. But just as it requires effort to build or maintain physical health, so it is with mental and emotional health.
2. **Sexting:** send (someone) sexually explicit photographs or messages using a mobile phone
3. **Pressure:** the use of persuasion or intimidation to make someone do something
4. **STI:** sexually transmitted infection
5. **Sexuality:** a person's sexual orientation or preference
6. **Non-binary:** not relating to or involved with two things (gender)
7. **Relationship:** the way in which two or more people or things are connected.
8. **Healthy:** in a good physical or mental condition; in good health.
9. **Exploitation:** the action or fact of treating someone unfairly in order to benefit from their work.

Key knowledge

10. Emotional health includes a) being able to adapt and deal with daily challenges (resilient), b) being happy and confident and not anxious or depressed, c) the ability to have good relationships with others, d) to have some control of your life, to problem-solve, manage emotions and experience empathy.
11. By sending or having a sexual picture/video of a person under 18 on your device you are breaking the law.
12. If anybody has a rude/sexual image of an under 18 year they could be prosecuted and end up on the Sex Offenders Register.
13. Some of the consequences of sexting include a) pressure to send more pictures, b) bullying from friends/people at school, c) being bribed for money, d) feelings of shame or embarrassment, e) depression, f) suicide.
14. Condoms can only be used once. If someone has sex more than once, they should use a new condom.
15. If a condom breaks people should go to Brook sexual health clinic. If the female is having sex with a male then she could be pregnant.
16. At birth a doctor will name the sex of a baby into a male or female, this is based on the baby's genitals. When the person grows up they might feel that their sex does not match how they feel about themselves. This is most often known as transgender or sometimes gender dysphoria.
17. If you are ever worried about yourself or others being exploited it is important that you talk to someone about it, like a teacher, school nurse or APL.

PHSE & Citizenship

Key wordsGlobal Community

1. **Global warming:** a gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect
2. **Greenhouse Effect:** the trapping of the sun's warmth in the planet's atmosphere caused by increased levels of carbon dioxide, CFCs, and other pollutants
3. **Factory farming:** a system of bringing up livestock using highly intensive methods where they are kept indoors under strictly controlled conditions.
4. **Animal rights:** the rights of animals to live free from human exploitation and abuse.
5. **Animal testing:** scientific experiment in which a live animal is forced to undergo something that is likely to cause them pain to test the safety of a product for humans.
6. **Stewardship:** taking care of the environment and improving it for the next generation
7. **Advocacy:** supporting and enabling people to express their views and concerns, access information and services, and defend and promote their rights and responsibilities.

Key knowledge

8. The four main consequences of global warming are a) the rise in temperature causes the ice to melt, which causes the sea level to rise. This means that there will be flooding and people can die, b) desertification because the land dries up as there is no moisture because of the heat. This means that people will not be able to grow food on the land so will starve, or will die from dehydration, c) extreme weather, for example, hurricanes which are created from the warm air and water meeting, d) some plants and animals will become extinct because they cannot adapt to the temperature change, which means future generations will miss out on seeing certain species and can have a knock on effect on the food chain.
9. PETA is an example of an animal rights charity.
10. Many people are against animal testing because a) they believe it is wrong to treat animals cruelly, b) some testing may be useless as animals don't necessarily react the same way as humans, meaning animals are killed or harmed for no reason, c) alternative methods of testing products are available.
11. Negatives of factory farming include a) animal cruelty, b) antibiotic resistant germs, c) massive pollution, d) destroyed communities, e) mad cow disease, f) dangerous working conditions, g) manure in the meat.
12. Religious people believe they should look after the planet because a) they believe the world and everything in it is a gift from God, b) climate change effects the world's poorest people and they have a duty to look after them, c)
13. Greta Thunberg is an example of a young activist who is fighting to end the causes of climate change

Religious Studies

Keywords

Philosophy

1. Wahy: Arabic word for revelation that occurs through angels
2. Special revelation: a direct communication or specific event that affects individuals and provides knowledge about God
3. General revelation: an experience that is available to everyone and enables them to recognise God
4. Hallucination: seeing something that is not actually present
5. Ru'ya: Arabic word for vision
6. Vision: seeing something that is unlike normal experience and provides knowledge from or about God
7. Miracle: an extraordinary event that cannot be explained by scientific or natural laws and is therefore believed to have happened through a divine being.
8. Ayah: both a verse and also a sign. So, for Muslims, every verse of the Qur'an is a miracle.
9. Fir'awn: Pharaoh
10. Numinous experience: when a person experiences awe in feeling the beauty of God's creation.
11. Philosophy: the study of the nature of knowledge and existence, including questions about how we should live.
12. Religious Experience: an event where a person, or people, believe they have come into contact with God or have felt his presence.
13. Teleological argument (design argument): the argument that God designed the universe because it could not have happened by chance.
14. Philosopher: a person who offers views or theories about matters of existence and ethics.
15. Rabb Al'Alamin: one of Allah's 99 names meaning 'Lord of the Worlds'.

Religious Studies

Key knowledge

Crime and Punishment

16. Examples of religious experience: a) miracles, b) visions, c) revelation, d) numinous experiences.
17. Allah reveals himself to humans through a) nature, b) scripture, c) worship, d) prophets, e) miracles, f) conversion, g) conscience.
18. Some prophets experienced more wahy than others, but special revelations are not restricted to them. The Qur'an says the mothers of both Musa (Moses) and Isa (Jesus) received messages from God too.
19. Many Muslims believe that all revelation stopped after Prophet Muhammad because Allah sent his last message, the Qur'an, to him through the angel Jibril.
20. Other Muslims believe that revelation continues today because Allah's characteristics are eternal. Part of his nature is to speak. If he spoke before, he should still speak now.
21. Corporeal visions are when the physical appearance of other people or beings, such as prophets or angels, which occur when people are awake, e.g. Jibril appearing to Prophet Muhammad.
22. Imaginative visions include the presence of something divine. They can occur in dreams and carry important messages from God, e.g. vision Prophet Muhammad at the Sacred Mosque in Mecca.
23. Examples of miracles: a) Musa parting the Red Sea, b) Prophet Muhammad splitting the moon, c) the Qur'an.
24. Non-religious responses to religious experiences: a) Psychological factors: Sigmund Freud – religion is an illusion and religious experiences take place because people want to experience them, b) Physiological factors: Result of physical changes in the body e.g. epilepsy causes seizures and hallucinations, c) Sociological factors: Karl Marx – religion is a form of social control that makes believers behave in a certain way that distracts them from reality.

Source of wisdom and authority - SOWA

"It is not granted to any mortal that Allah should speak to him except through revelation or from behind a veil, or by sending a messenger to reveal by His command what He will." Surah 42:51

"For those who believe and are conscious of God, for them there is good news in this life and in the Hereafter." Surah 10: 63-64

"We have made Our signs clear enough to those who have solid faith." Surah 2: 118

Science - Biology

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

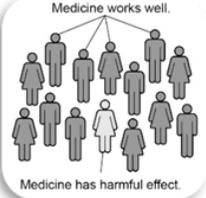
Communicable diseases can be passed from person to person.

Non-communicable diseases cannot be passed from person to person.

Body defences	Function
	Mucus sticks to pathogens trying to enter the body.
	Mucus sticks to pathogens. Cilia moves mucus and dust away from the lungs.
	Destroys pathogens.
	Hard to penetrate physical barrier

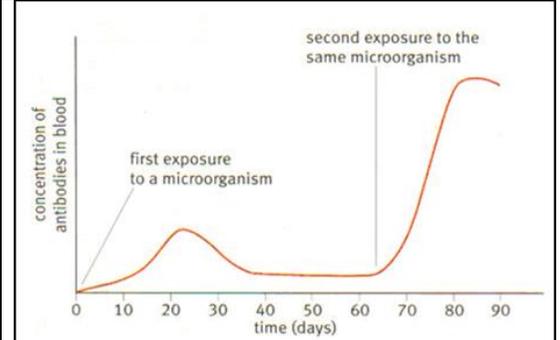
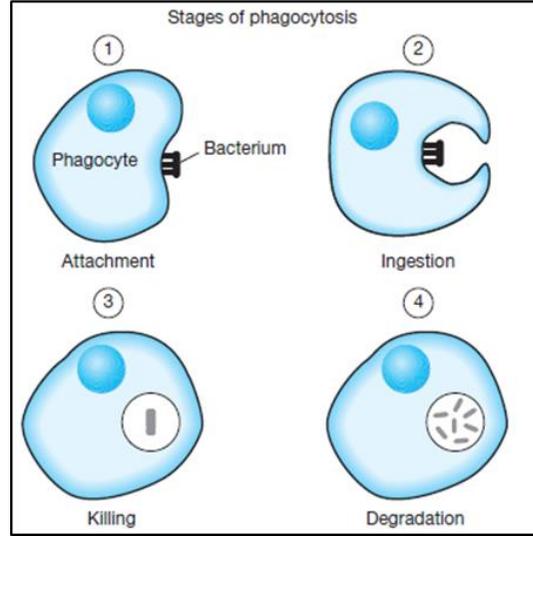
Development of drugs



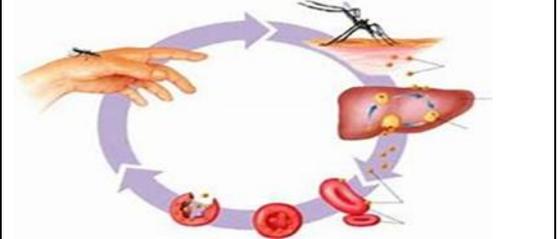


After testing on cells and animals, very low doses of the drug are given to check it is not toxic and safe for humans. If it is safe, it is given to more people to find the optimum

Epidemic is a widespread outbreak in a community.
Pandemic is a worldwide outbreak of a disease



Protist
 Membrane bound organelles. Usually single celled. e.g. malaria



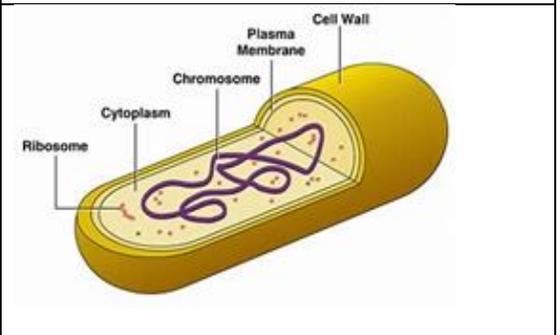
Fungi
 Membrane bound organelles, cell wall. e.g. rose black spot

Efficacy makes sure the drug works.
Toxicity checks that the drug is not poisonous.
Optimum dose is the most effective amount to take.

Virus
 DNA or RNA surrounded by a protein coat.
 e.g. HIV tobacco mosaic virus, influenza



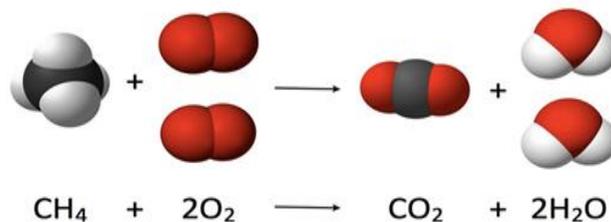
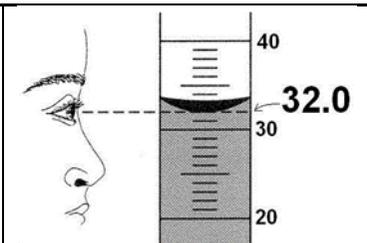
Bacteria
 No membrane bound organelles (no chloroplasts, mitochondria or nucleus). Cell wall.
 Single celled organisms
 e.g. salmonella, gonorrhoea, tuberculosis (TB)



Science – Chemistry

Relative formula mass (M_r) is the sum of **relative atomic masses (A_r)** of atoms in the formula

Uncertainty of a set of measurements is half the range of values.

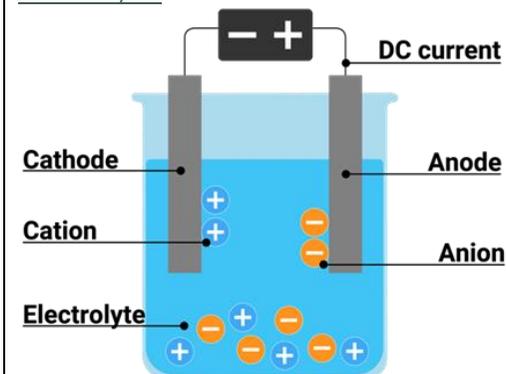


Conservation of mass states:
mass of products = mass of reactants

Oxidation Is Loss (of electrons)
Reduction Is Gain (of electrons)

Reactions
Metal + Oxygen \rightarrow Metal Oxide
Metal + Acid \rightarrow Salt + Hydrogen
Acid + Alkali \rightarrow Salt + Water
Acid + Metal Oxide \rightarrow Salt + Water
Acid + Metal Carbonate \rightarrow Salt + Water + Carbon Dioxide

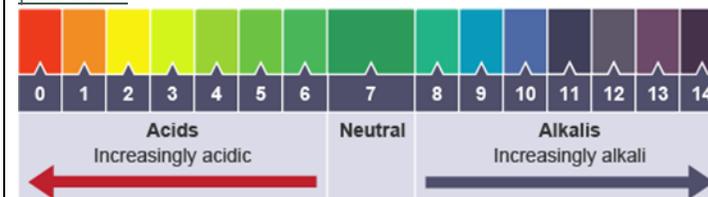
Electrolysis



Reactivity series

Most reactive			Least reactive	
Potassium				K
Sodium				Na
Lithium				Li
Calcium				Ca
Magnesium				Mg
Aluminium				Al
Carbon				C
Zinc				Zn
Iron				Fe
Hydrogen				H
Copper				Cu
Silver				Ag
Gold				Au

pH Scale



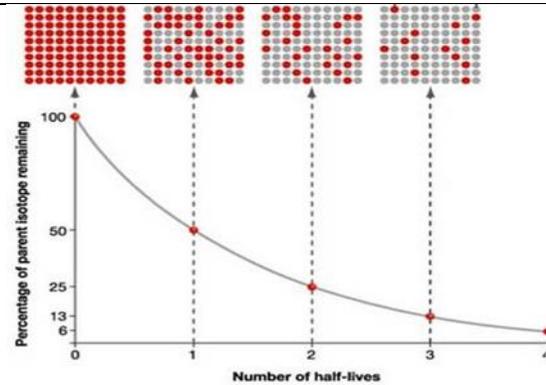
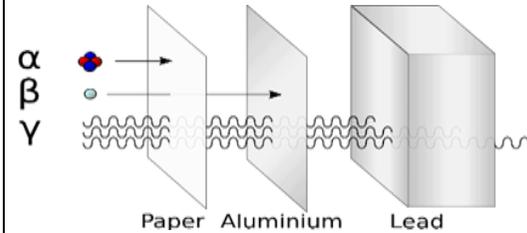
$$\text{Moles} = \frac{\text{Mass}}{M_r}$$

$$\% \text{ Yield} = \frac{\text{Actual mass of product}}{\text{Theoretical mass of product}} \times 100$$

$$\text{Atom economy} = \frac{M_r \text{ of desired product}}{\text{Sum of } M_r \text{ of reactants}} \times 100$$

Science – Physics

Contamination	Unwanted presence of radioactive atoms
Irradiation	Person is exposed to radioactive source



Half-life – The time taken to lose half of its initial radioactivity

Atom	Same number of protons and electrons
Ion	Unequal number of electrons to protons
Mass number	Number of protons <u>and</u> neutrons
Atomic number	Number of protons

Equations

$$\text{Density} = \frac{\text{Mass}}{\text{Volume}}$$

$$\text{Change in thermal energy} = \text{mass} \times \text{Specific heat capacity} \times \text{temp. change}$$

$$\text{Energy needed} = \text{mass} \times \text{specific latent heat}$$

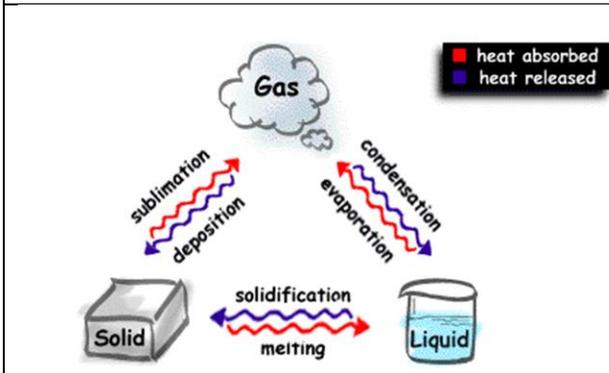
State	Particle arrangement	Properties	Diagram
Solid	Packed in a regular structure. Strong forces hold in place so cannot move.	Difficult to change shape.	
Liquid	Close together, forces keep contact but can move about.	Can change shape but difficult to compress.	
Gas	Separated by large distances. Weak forces so constantly randomly moving.	Can expand to fill a space, easy to compress.	

Density of an irregular shape – Required Practical

- Measure mass (m)
- Submerge object in water
- Measure volume of water displaced (V)
- Calculate density (ρ)

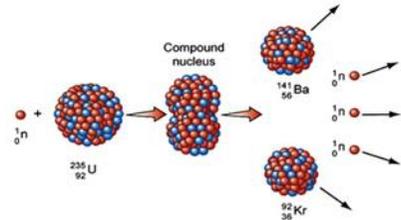
$$\rho = \frac{m}{V}$$

Example: mass = 82.3 g



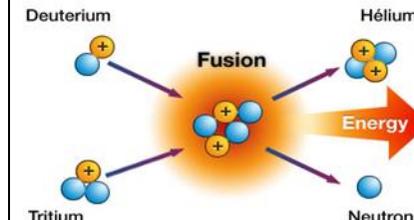
Nuclear Fission

One large unstable nucleus splits to make two smaller nuclei



Nuclear Fusion

Two small nuclei join to make one larger nucleus



Travel and Tourism

<p><u>Sustainable Tourism</u></p> <p>Sustainable tourism: meets the needs of tourists and local communities while protecting the natural historical and cultural environment for the future.</p> <p>Eco-tourism: resorts that have been developed in a sustainable way.</p> <p>Conserve: protect from harm or destruction</p> <p>4 principles of sustainable tourism</p> <ul style="list-style-type: none"> ▪ Minimise negative environmental impacts in a destination ▪ Create economic benefits, including future employment, for local people. ▪ Conserve local culture ▪ Promote links and respects between tourists and local communities. 	<p><u>Types of Tourism</u></p> <p>Domestic tourism Whenever you go on holiday in the country in which you live or go on a day trip to another town or place of interest</p> <p>Outbound tourism Anyone who travels from the UK to another country for a holiday (or other type of visit).</p> <p>Inbound tourism People who travel to the UK for tourism purposes are inbound tourists.</p>	<p><u>Importance of the travel and tourism sector to the UK economy</u></p> <p>Employment The Travel and Tourism sector provides jobs. Direct employment: jobs that are in direct contact with tourists (e.g. hotel desk clerk, airline pilot). Indirect employment: jobs that supply the direct employment (e.g. aircraft suppliers, hotel laundry supplier).</p> <p>Infrastructure Development Growing infrastructure to attract tourists Example: an efficient and easily accessible airport.</p> <p>Economic Multiplier Effect Definition: the additional income or employment created in an area as a result of spending on tourism. Example: Staying at a hotel, a tourist pays for room and food. The hotel uses its income to buy more supplies of food, to pay for laundry and maintenance. Staff will receive wages which they can then spend.</p>
	<p><u>Types of Travel</u></p> <p>Leisure travel Pleasure is the usual motivation for leisure travel. It includes day trips, short breaks, holidays, visiting friends and relatives, staycations and special events.</p> <p>Business travel Travel for business reasons such as attend meetings, conferences and events</p>	

Travel and Tourism

<p><u>Factors influencing Tourism</u></p> <p>Economic Recession/boom - affect the amount of money people can spend on holidays Levels of employment – changes in exchange rates and fuel costs.</p> <p>Political Laws and legislation Passport & visa requirements Trade and airport taxes Political instability (eg, civil war)</p> <p>Media Positive and negative media publicity. Social media, newspapers, TV & blogs.</p> <p>Natural disasters Earthquakes, volcanoes & tsunamis Extreme weather (eg, flooding, fires, snowstorms, droughts)</p> <p>Health Infectious diseases and illnesses (eg, malaria, cholera, coronavirus) Precautions – vaccinations, insurance & hygiene</p>	<p><u>Impact of Tourism</u></p> <p>Social Impacts effecting peoples and their lives. Negative: Crime, loss of culture, disruption Positive: Facilities, transport & services</p> <p>Economic Negative: increased cost of living, low paid and seasonal jobs Positive: More jobs, multiplier effect</p> <p>Environmental Negative: Loss of habitats & wildlife, pollution, overcrowding, erosion Positive: conservation, regeneration</p>	<p><u>Key Terms</u></p> <p>Sustainable tourism: meets the needs of tourists and local communities while protecting the natural historical and cultural environment for the future.</p> <p>Eco-tourism: resorts that have been developed in a sustainable way.</p> <p>Multiplier effect: Income created by tourism in an area which boosts and improves the development of an area</p> <p>Response to factors</p> <ul style="list-style-type: none"> ▪ Travel Organisations (adapt destinations, services, prices) ▪ Government (travel restrictions, improving security & image) ▪ Voluntary organisations (promoting sustainability, conservation, ethical and environmental tourism)
	<p><u>Managing impacts</u></p> <p>Sustainability Social: Improved education, infrastructure and community projects Economic: Employment and training opportunities for local people. Encourage spending on local companies and businesses. Environmental: Traffic and visitor restrictions. Conservation and protection. Education, legislation & ecotourism</p>	

World Languages - French

<p>La nourriture et les boissons</p> <p>du beurre/du fromage du lait/du pain du poisson/du poulet du yaourt de la confiture de la glace de la viande de l'eau (f) des bananes/des fraises des œufs/des pêches des poires/des pommes des pommes de terre</p>	<p>Food and drink</p> <p>butter/cheese milk/bread fish/chicken yoghurt jam ice cream meat water bananas/strawberries eggs/peaches pears/apples potatoes</p>	<p>CONSEILS POUR UN MODE DE VIE SAIN</p> <table border="1"> <tr> <td> MOINS DE VIANDE</td> <td>PLUS DE LÉGUMES </td> </tr> <tr> <td> MOINS DE SUCRE</td> <td>PLUS DE FRUITS </td> </tr> <tr> <td> MOINS DE SODA</td> <td>PLUS D'EAU </td> </tr> <tr> <td> MOINS D'ALCOOL</td> <td>PLUS DE THÉ </td> </tr> <tr> <td> MOINS DE TÉLÉ</td> <td>PLUS DE SPORT </td> </tr> <tr> <td> MOINS DE STRESS</td> <td>PLUS DE REPOS </td> </tr> <tr> <td> MOINS DE COLÈRE</td> <td>PLUS DE RIRE </td> </tr> </table> <p>HEALTHY STUDENT</p>	MOINS DE VIANDE	PLUS DE LÉGUMES	MOINS DE SUCRE	PLUS DE FRUITS	MOINS DE SODA	PLUS D'EAU	MOINS D'ALCOOL	PLUS DE THÉ	MOINS DE TÉLÉ	PLUS DE SPORT	MOINS DE STRESS	PLUS DE REPOS	MOINS DE COLÈRE	PLUS DE RIRE																										
MOINS DE VIANDE	PLUS DE LÉGUMES																																									
MOINS DE SUCRE	PLUS DE FRUITS																																									
MOINS DE SODA	PLUS D'EAU																																									
MOINS D'ALCOOL	PLUS DE THÉ																																									
MOINS DE TÉLÉ	PLUS DE SPORT																																									
MOINS DE STRESS	PLUS DE REPOS																																									
MOINS DE COLÈRE	PLUS DE RIRE																																									
<p>Les repas</p> <p>Qu'est-ce que tu prends pour le petit-déjeuner? Qu'est-ce que tu manges à midi? Qu'est-ce que tu manges comme casse-croûte? Qu'est-ce que tu manges le soir? Qu'est-ce que tu bois? Pour le petit-déjeuner, ... À midi, ... Comme casse-croûte, ... Le soir, ... Comme dessert, ...</p>	<p>Meals</p> <p>What do you have for breakfast? What do you eat at lunchtime? What do you have as a snack? What do you eat in the evening? What do you drink? For breakfast ... At lunchtime ... As a snack ... In the evening ... For dessert ...</p>	<p>G The present and near future tenses</p> <table border="1"> <tr> <td>Use the present tense to say what you normally or usually do.</td> <td>Use the near future tense to say what you are going to do.</td> </tr> <tr> <td><i>Je mange/danse (etc.)</i></td> <td><i>Je vais manger/danser (etc.)</i></td> </tr> <tr> <td><i>On mange/danse (etc.)</i></td> <td><i>On va manger/danser (etc.)</i></td> </tr> </table>	Use the present tense to say what you normally or usually do .	Use the near future tense to say what you are going to do .	<i>Je mange/danse (etc.)</i>	<i>Je vais manger/danser (etc.)</i>	<i>On mange/danse (etc.)</i>	<i>On va manger/danser (etc.)</i>																																		
Use the present tense to say what you normally or usually do .	Use the near future tense to say what you are going to do .																																									
<i>Je mange/danse (etc.)</i>	<i>Je vais manger/danser (etc.)</i>																																									
<i>On mange/danse (etc.)</i>	<i>On va manger/danser (etc.)</i>																																									
<p>Je prends/je mange ... des céréales du pain grillé un sandwich des chips/des biscuits des pâtes de la salade de la glace au chocolat Je bois du jus d'orange.</p>	<p><i>I have/I eat ...</i> cereal toast a sandwich crisps/biscuits pasta salad chocolate ice cream <i>I drink orange juice.</i></p>	<table border="1"> <tr> <td>Un repas spécial</td> <td>A special meal</td> <td></td> <td></td> </tr> <tr> <td>Je vais/On va apporter ...</td> <td>I am/We are going to bring ...</td> <td>une laitue</td> <td>a lettuce</td> </tr> <tr> <td>du jambon/du pâté</td> <td>ham/pâté</td> <td>des tomates/des oignons</td> <td>tomatoes/onions</td> </tr> <tr> <td>du saucisson</td> <td>salami</td> <td>des poivrons</td> <td>peppers</td> </tr> <tr> <td>des baguettes</td> <td>baguettes</td> <td>des champignons</td> <td>mushrooms</td> </tr> <tr> <td>des biftecks</td> <td>steaks</td> <td>des abricots</td> <td>apricots</td> </tr> <tr> <td>des saucisses</td> <td>sausages</td> <td>des framboises</td> <td>raspberries</td> </tr> <tr> <td>des salades composées</td> <td>mixed salads</td> <td>du raisin</td> <td>grapes</td> </tr> <tr> <td>une salade de riz</td> <td>a rice salad</td> <td>des mini-gâteaux</td> <td>mini-cakes</td> </tr> <tr> <td>du concombre</td> <td>cucumber</td> <td>une tarte aux fruits</td> <td>a fruit tart</td> </tr> </table>	Un repas spécial	A special meal			Je vais/On va apporter ...	I am/We are going to bring ...	une laitue	a lettuce	du jambon/du pâté	ham/pâté	des tomates/des oignons	tomatoes/onions	du saucisson	salami	des poivrons	peppers	des baguettes	baguettes	des champignons	mushrooms	des biftecks	steaks	des abricots	apricots	des saucisses	sausages	des framboises	raspberries	des salades composées	mixed salads	du raisin	grapes	une salade de riz	a rice salad	des mini-gâteaux	mini-cakes	du concombre	cucumber	une tarte aux fruits	a fruit tart
Un repas spécial	A special meal																																									
Je vais/On va apporter ...	I am/We are going to bring ...	une laitue	a lettuce																																							
du jambon/du pâté	ham/pâté	des tomates/des oignons	tomatoes/onions																																							
du saucisson	salami	des poivrons	peppers																																							
des baguettes	baguettes	des champignons	mushrooms																																							
des biftecks	steaks	des abricots	apricots																																							
des saucisses	sausages	des framboises	raspberries																																							
des salades composées	mixed salads	du raisin	grapes																																							
une salade de riz	a rice salad	des mini-gâteaux	mini-cakes																																							
du concombre	cucumber	une tarte aux fruits	a fruit tart																																							

World Languages - French

<p>Quel temps fait-il?</p> <p> Il fait beau.</p> <p> Il fait mauvais.</p> <p> Il fait chaud.</p> <p> Il fait froid.</p> <p> Il y a du soleil.</p> <p> Il y a du brouillard.</p> <p> Il y a du vent.</p> <p> Il y a un orage.</p> <p> Il pleut.</p> <p> Il neige.</p>	<p>Les activités en vacances</p> <p>Je fais de la planche à voile. Je fais de la voile. Je fais de l'accrobranche. Je fais du ski. Je visite les musées. Je visite les monuments. Je vais à la pêche. Je vais à la plage.</p> <p>Holiday activities</p> <p>I go windsurfing. I go sailing. I do a tree-top adventure. I go skiing. I visit the museums. I visit the monuments. I go fishing. I go to the beach.</p> <p>Je joue à la pétanque. Je me baigne. Je me promène. Je me repose. Je me lève (tôt/tard). Je m'habille. Je ne m'ennuie pas. Je sors au restaurant.</p> <p><i>I play French bowls. I swim (in the sea). I go for a walk. I rest. I get up (early/late). I get dressed. I don't get bored. I go out to a restaurant.</i></p>	<p>Les vacances</p> <p>Où vas-tu en vacances? Je vais ... en France au pays de Galles aux États-Unis</p> <p>Comment voyages-tu? Je voyage ... en avion/en bateau en car/en train en voiture à vélo</p> <p>Où loges-tu? Je loge dans ... un camping un hôtel</p> <p>Holidays</p> <p>Where do you go on holiday? I go ... to France to Wales to the USA</p> <p>How do you travel? I travel ... by plane/by boat by coach/by train by car by bike</p> <p>Where do you stay? I stay in/on ... a campsite a hotel</p>	<p>Qu'est-ce qu'il y a dans ta région?</p> <p>Dans ma région, il y a ... un lac un port de pêche une rivière/un fleuve des champs des collines des fermes des forêts des stations de ski des vignobles</p> <p>En Bretagne, il y a ... un beau château une belle cathédrale des villes historiques de vieilles maisons de vieux bâtiments</p> <p>On peut ... faire de la voile faire des randonnées à vélo</p>	<p>What is there in your region?</p> <p>In my region there is/are ... a lake a fishing port a river fields hills farms forests ski resorts vineyards</p> <p>In Brittany there is/are ... a beautiful castle a beautiful cathedral historical towns old houses old buildings</p> <p>You can ... go sailing go for bike rides</p>
<p>C'est le drapeau de quel pays? Écrivez la bonne réponse.</p>  <p>la Belgique le pays de Galles l'Allemagne l'Angleterre les Pays-Bas l'Espagne l'Italie le Pakistan</p> <p>l'Algérie les États-Unis le Danemark la Suisse la Russie le Royaume-Uni la Pologne l'Autriche</p>				

World Languages – Spanish – Healthy Living

agua - water	boca - mouth	ejercicio – exercise	Estoy = I am (feeling) (state) Soy = I am (type of person) Tengo = I have Me duele = ___ hurts (me) Me duelen = ____ hurt (me) <hr/> No estoy de acuerdo con = I don't agree with No aguanto = I can't stand <hr/> Estoy en forma = I'm in shape Suelo comer = I usually eat Suelo beber = I usually drink <hr/> Siempre = always Cada dia = every day Generalmente = generally De vez en cuando = from time to time Raramente = rarely Nunca = never
ajo - garlic	brazo - arm	enfermedad - illness	
alimento - food	cabeza - head	enfermo - ill	
arroz - rice	dedo - finger	farmacia - pharmacy	
atún - tuna	la mano - hand	fumador - smoker	
azúcar - sugar	nariz - nose	muerto - dead	
barra (de pan) – loaf (of bread)	ojo - eye	salud - health	
bebida - drink	oreja - ear	sano - healthy	
bistec or bisté - steak	pie - foot	vegetariano - vegetarian	
bocadillo - sandwich	pierna – leg	alpinismo – rock climbing	
bombón – sweet (chocolate)	corazón, el - heart	atletismo - athletics	
café = coffee	cuerpo, el – body	baloncesto – basketball	
calamares - squid	pulmones - lungs	bicicleta/bici - bike	
caramelo - sweet	voz, la - voice	boxeo – Boxing	
carne - meat	adictivo - addictive	ciclismo - cycling	
cebolla - onion	alcohólico - alcoholic	deporte - sport	
cena, la – supper/dinner/meal	cansado - tired	deportista - sporty	
cereales - cereal	cigarrillo - cigarette	equipo = team	
cerveza - beer	comida basura– junk food	footing, el - jogging	
champiñones - mushrooms	dolor – pain	monopatín – skateboarding	

World Languages - Spanish

<p>Está nublado – It is cloudy</p> <p>Hace buen tiempo – It is nice weather</p> <p>Hace calor – It is hot</p> <p>Hace mal tiempo – It is bad weather</p> <p>Hace frío – It is cold</p> <p>Hace sol – It is sunny</p> <p>Hace viento – It is windy</p> <p>Hay tormenta – There is a storm</p> <p>Hay niebla – It is foggy</p> <p>Llueve – It is raining</p> <p>Nieva – It is snowing</p>	<p><u>Question Words:</u></p> <p>¿qué? = what</p> <p>¿dónde? = where</p> <p>¿cómo? = how</p> <p>¿por qué? = why</p> <p>¿quién? = who</p> <p>¿cuándo? = when</p>	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center;"> <h3>Los Medios de Transporte</h3>  </div>	 <p>BARCELONA</p>  <p>LA MANCHA</p>  <p>MADRID</p>																						
<table border="1" style="width: 100%;"> <tr> <td>Voy a tomar unas tapas</td> <td>I am going to have some Tapas</td> </tr> <tr> <td>Voy a ver vistas espléndidas</td> <td>I'm going to see beautiful views</td> </tr> <tr> <td>Voy a ver una corrida</td> <td>I am going to watch a bullfight</td> </tr> <tr> <td>Voy a sacar fotos</td> <td>I'm going to take photos</td> </tr> <tr> <td>Voy a dar un paseo</td> <td>I am going to go for a walk</td> </tr> <tr> <td>Voy a comprar recuerdos</td> <td>I'm going to buy souvenirs</td> </tr> </table>	Voy a tomar unas tapas	I am going to have some Tapas	Voy a ver vistas espléndidas	I'm going to see beautiful views	Voy a ver una corrida	I am going to watch a bullfight	Voy a sacar fotos	I'm going to take photos	Voy a dar un paseo	I am going to go for a walk	Voy a comprar recuerdos	I'm going to buy souvenirs		<p><u>Los países:</u></p> <table style="width: 100%;"> <tr> <td>Francia = France</td> <td>Espana = Spain</td> </tr> <tr> <td>Grecia = Greece</td> <td>Irlanda = Ireland</td> </tr> <tr> <td>Portugal</td> <td>Alemania = Germany</td> </tr> <tr> <td>Polonia = Poland</td> <td>Rumania = Romania</td> </tr> <tr> <td>Paquistán = Pakistan</td> <td>Los Estados Unidos = USA</td> </tr> </table>	Francia = France	Espana = Spain	Grecia = Greece	Irlanda = Ireland	Portugal	Alemania = Germany	Polonia = Poland	Rumania = Romania	Paquistán = Pakistan	Los Estados Unidos = USA	
Voy a tomar unas tapas	I am going to have some Tapas																								
Voy a ver vistas espléndidas	I'm going to see beautiful views																								
Voy a ver una corrida	I am going to watch a bullfight																								
Voy a sacar fotos	I'm going to take photos																								
Voy a dar un paseo	I am going to go for a walk																								
Voy a comprar recuerdos	I'm going to buy souvenirs																								
Francia = France	Espana = Spain																								
Grecia = Greece	Irlanda = Ireland																								
Portugal	Alemania = Germany																								
Polonia = Poland	Rumania = Romania																								
Paquistán = Pakistan	Los Estados Unidos = USA																								
<p>Nadé en el mar = I swam in the sea</p> <p>Comí helados = I ate ice-creams</p>		<p>Tomé el sol = I sunbathed</p> <p>Nos quedamos en un hotel = we stayed in a hotel</p>	<p>Saqué fotos = I took photos</p> <p>Visité museos = I visited museums</p>																						

Record of learning homework

How to record your learning

You should record the subject or subjects on the learning homework page and show this to your form tutor on a weekly basis.

Week: Apl 20	Week: Apl 27	Week: May 4	Week: May 11	Week: May 18	Week: Jun 1

Week: Jun 8	Week: Jun 15	Week: Jun 22	Week: Jun 29	Week: Jul 6	Week: Jul 13