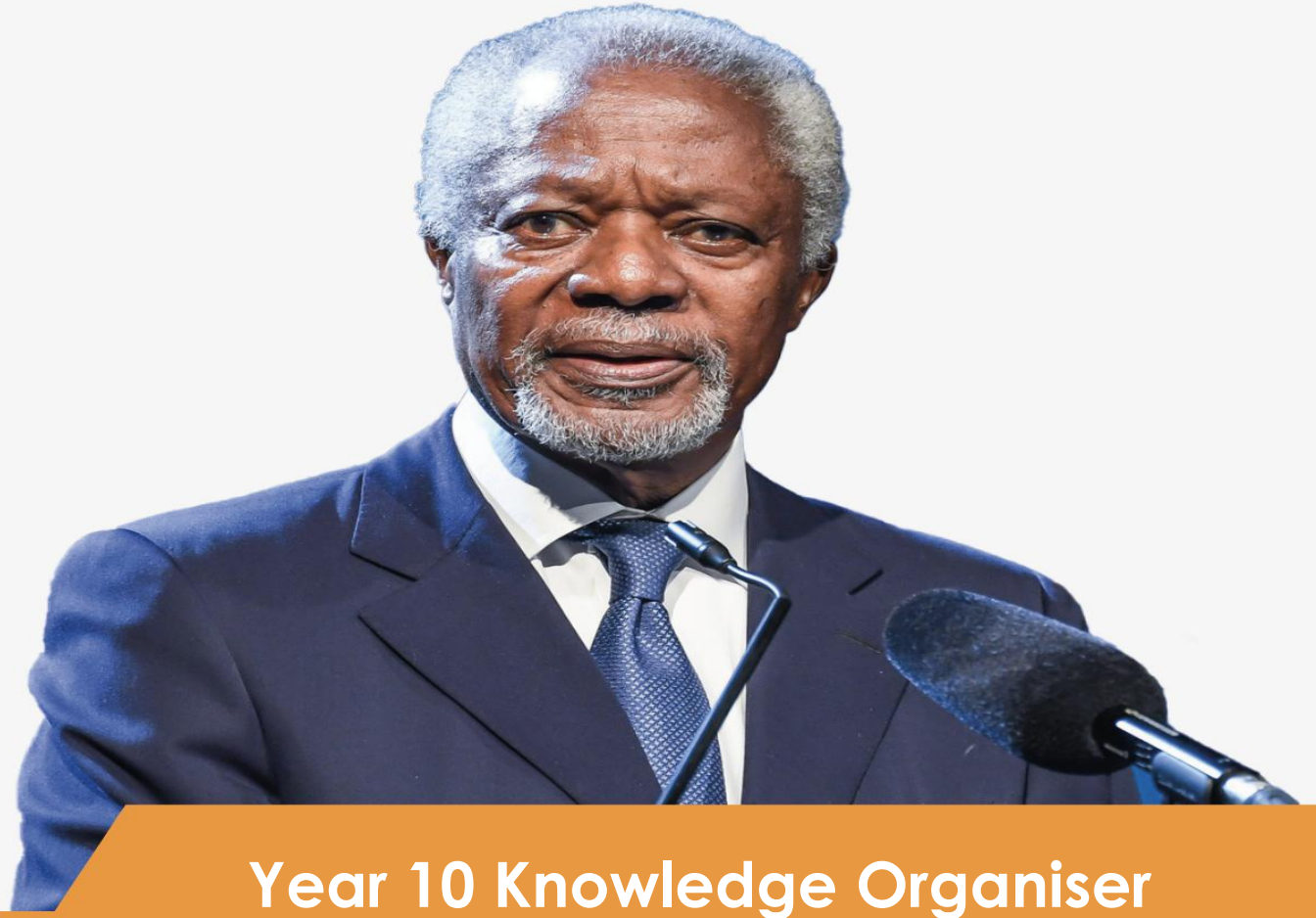
Frank Field
Education Trust

"Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family"

- Kofi Annan



Year 10 Knowledge Organiser

Learning Programme 2

Pupil Name:	Form Group:

Birches Head Academy

Contents page

Birches Head Academy

Instructions to use the Knowledge Organiser

Use of the Knowledge Organiser

Every school day you should be studying at least 1 section of your Knowledge Organiser (KO) for homework.

The timetable outlines the tasks you will study during that week.

Your subject teacher will set the relevant homework task from the Knowledge Organiser booklet and inform you of when the homework is to be handed in.

Your homework is to be completed in your subject exercise book, unless the instructions are different within the task.

You need to bring your Knowledge Organiser and exercise books with you EVERYDAY to the academy.

You will also be tested in your lessons on knowledge from the organisers every week to ensure that the core knowledge is retained over time.

You should also be developing your core knowledge by developing your self-testing, revision and study skills techniques alongside the homework tasks.

You can use any of the adjacent techniques on top of the core homework tasks to enhance your revision skills.

Self-testing, revision and study skills techniques

You can use your KOs and book in a number of different ways but you should not just copy from the Knowledge Organiser into your book. Use the 'How to self-test with the Knowledge Organiser' booklet to help you.

Below are some possible tasks you could do in your workbooks, no matter which task you do you should always check and correct your work in a different coloured pen.

- Ask someone to write questions for you
- Write your own challenging questions and then leave it overnight to answer them the next day
- Create mind maps
- Create flashcards
- Put the key words into new sentences
- Look, cover, write and check
- Mnemonics
- Draw a comic strip of a timeline
- Use the 'clock' template to divide the information into smaller sections. Then test yourself on different sections
- Give yourself spelling tests
- Definition tests
- Draw diagrams of processes
- Draw images and annotate/label them with extra information
- Create fact files

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How do I self quiz?

How to use...Flashcards

1. On one side of the flash card, write the word or question.
2. On the other side, write the definition for the word, or answer to the question.
3. Once you have completed your set of cards, put them in a pile. Then for each card, see if you can remember the definition or answer to the question. Tick or cross when you get it right or wrong.
4. When you get the card right, place it in the 'correct' pile. When you get it wrong, place it in the 'wrong' pile. Repeat until all cards are in the 'correct' pile.

You can also use the Leitner Method: **https://www.youtube.com/watch?v=C20EvKtdJwQ**

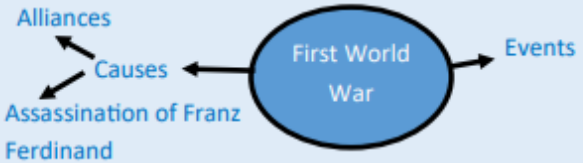
How to use... Look, Cover, Write, Check and Correct

1. Write your key words into the 'Look, Cover' column and then cover it.
2. Write out the meaning, definition or spelling in the 'Write' column.
3. Put a 'tick' or 'cross' in the 'Check' column depending on if you got the answer right.
4. If you got the answer incorrect, write the correct answer in the 'Correct' column.

Look , Cover	Write	Check	Correct
Noun	A person, place or	✓	
Algorithm	Algorithim	X	Algorithm

How to use... Mind Maps

1. Write out your topic or idea in the centre. E.g. The First World War.
2. Off of the main bubble, write out important categories to organise your ideas. E.g. causes of WWI and events in WWI
3. Then add your knowledge off of these branches. You might even be able to make connections between them.
4. Once made, then redraw as many of the connections as possible from memory. Correct any errors.



How to use... Explaining a process/ idea further

Your teacher might ask you to explain a key idea, process or event from your learning. This could be the water cycle (Geography), photosynthesis (Science) or something else. In your answer, try to use the words **because, but**, and **so.** These will help you to:

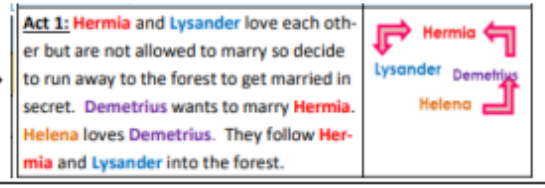
1. **Because:** helps to explain a reason, cause or why something works.
2. **But:** helps to explain a limitation or problem.
3. **So:** helps to explain what happens next in a sequence, process or event.

Check your sentences to see if your explanations or right or wrong. Correct any errors.

How to... Summarise a process/idea

Rather than expand or explain a process, your teacher might ask you to summarise it into its key parts. E.g. summarising the plot 'A Midsummer Night's Dream' in English.

1. Read through the relevant part of your knowledge organiser as directed by your teacher.
2. Write out the (up to) 5 most important parts in your KO book, leaving a two lines in-between.
3. For each part, add **one** main idea.
4. E.g. here, the 4 key characters are picked out, and the direction of love is shown through the arrows. Check and correct any errors.



How to use... Subject Specific Tasks or Questions

Your teacher might choose to set a task that is not outlined here, and which is specific to that topic or their subject.

In this case, your teacher will outline specifically what it is you need to do, and how. This will still include you checking and correcting any errors.

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Homework tasks

Week	Subject	Task
LP2.1	English	Create flash cards on Mr and Mrs Birling.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Label the parts of an atom: proton, neutron, and electron. Include their relative charge and mass.
	Option X	Complete option X homework task.
	Option Y	Complete option Y homework task

Week	Subject	Task
LP2.2	English	Complete Page 1 of the AIC Plot organizer.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Create a timeline that shows the major developments in the atomic model (e.g., Dalton, Thomson, Rutherford, Bohr, Chadwick).
	Option Z	Complete option Z homework task

Week	Subject	Task
LP2.RLW	ALL	This week is an opportunity to work on knowledge that has been identified during lessons as key areas for development. This could be additional revision and recall tasks from the knowledge organisers or it could be specific tasks set by classroom teacher.

Week	Subject	Task
LP2.3	English	Complete Page 2 of the AIC Plot organizer.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Balance the following chemical equations: $H_2 + O_2 \rightarrow H_2O$ $Na + Cl_2 \rightarrow NaCl$ $Fe + O_2 \rightarrow Fe_2O_3$
	Option X	Complete option X homework task.
	Option Y	Complete option Y homework task

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Homework tasks

Week	Subject	Task
LP2.4	English	Complete Page 3 of the AIC Plot organizer.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Label a diagram of a paper chromatography setup.
	Option Z	Complete option Z homework task

Week	Subject	Task
LP2.5	English	Complete Page 4 of the AIC Plot organizer.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Describe the trend in reactivity down Group 1 alkali metals. Include lithium, sodium, and potassium in your comparison. Describe the trend in reactivity down Group 7 halogens. Include fluorine, chlorine, and iodine.
	Option X Option Y	Complete option X homework task. Complete option Y homework task

Week	Subject	Task
LP2.6	English	Complete Page 5 of the AIC Plot organizer.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Define and give one example of each: Ionic bonding, Covalent bonding, Metallic bonding.
	Option Z	Complete option Z homework task

Week	Subject	Task
LP2.7	English	Complete Page 6 of the AIC Plot organizer.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Describe a real-life scenario (e.g., medicine or food science) where understanding concentration is important.

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Options homework tasks

Subject	Task
3D Design	Explain the key features of Daniel Greens work, explore your own opinions, reflecting on your thoughts.
	Create a fact file about Jim Dines work, explore the key features and create a spider diagram.
	Create a split tonal/colour study of a sweet in the style of one of the artists.
Art	Explain the key features of Philippe Jacquots work, explore your own opinions, reflecting on your thoughts.
	Create a fact file about Richard Johnsons work, explore the key features and create a spider diagram.
	Create a split tonal/colour study of a sweet in the style of one of the artists.
Business	Complete the knowledge check homework on Seneca.
	Complete the knowledge check homework on Seneca.
	Complete the knowledge check homework on Seneca.
Drama	Select 2 vocal skills. Describe an exercise to develop each skill.
	Select 1 physical skill and 1 vocal skill. Explain how you have used each of the skills effectively to portray a particular character in Blood Brothers.
	Consider 3 skills which you wish to develop further for your performance of Blood Brothers. How will you develop these skills?
Geography	Describe the location of Stoke on Trent.
	Complete the A3 sheet to summarise Stoke on Trent's opportunities and challenges.
	Explain how and why regeneration is important in Stoke on Trent.
Health and Social Care	Write a PEE paragraph explaining the impact physical activity can have on the development of PIES on a middle adult.
	Create a flow chart of how Nadia's PIES have been negatively impacted by life events.
	Look, cover, write and check four key vocabulary words.

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Homework tasks

Subject	Task
History	List 5 facts about Renaissance medicine.
	Look, cover, write, check 5 key words.
	Complete an exam question on the importance of chloroform.
ICT	Complete the knowledge check homework on Teams/Seneca.
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Spanish	Log onto your personal Languagenut account and complete the appropriate homework task.
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Music	Create a revision card about one of the genres on your knowledge organiser. Add some of your own research to this and some musical examples that you could use in your coursework.
	In your book, link each of the key words to how they can be used in a genre e.g. loops can be used in EDM.
	Create an information poster about GarageBand and its features using your knowledge organiser.
Btec Sport	Create a list of the positions (team sports) or events in your sport (athletics).
	Make flashcards on the tactics you could use within your sport/activity to gain an advantage (e.g. how to get a head start).
	Create a list of the barriers to participation for individuals in sport and how these can be overcome.
Photography	Explain the key features of Nico Gooddens work, explore your own opinions, reflecting on your thoughts.
	Create a fact file about Maureen Brodbeck work, explore the key features and create a spider diagram.
	Describe the two photographers work and covey your opinions on which you prefer.
Religious Education	Explain why the Sunni and Shi'a split occurred.
	Create a mind map of the beliefs through the five roots and the six beliefs.
	Answer the exam question: Explain two beliefs about Risalah.
Hospitality and Catering	Describe what a high risk food is.
	What are the conditions needed for micro-organisms to grow?
	What is cross contamination?

Y10 LP2 3D: AO2 Decay

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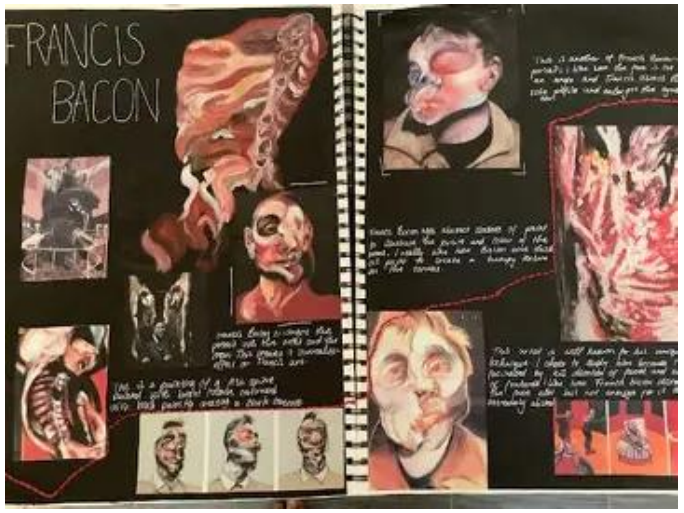
This Learning Programme you will befocusing on refining work by exploring ideas, selecting, and experimenting with appropriate media, materials, techniques, and processes.

1. How to refine your work.
2. How to select and explore multiple materials
3. Select key media to explore specific techniques
4. Identify successful use of materials
5. Explore multiple materials
6. Evaluate your use of processes
7. Identify successful experimentation.

KEY VOCABULARY	DEFINITION
Media	The materials used
Tone	Shades, ranging from dark to light
Shape	The outside line, joined to create a shape
Texture	Representation of how something feels
Pattern	A design in which shapes, lines and colours are repeated
Line	Basic visual element, used to create shapes
Form	Three dimensional shape, height, width, and depth
Colour	Different shades and tones
Review	An evaluation of artwork
Reflect	Think carefully and make comments
Analyse	Examine in detail



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

What does this mean?
You need to demonstrate that you are able to explore, progress and improve your ideas through a development journey of experimentation, trails, samples, working things out as you go.

Refinement means to improve. You will learn from doing something then working out how to do it better and then having another go. This may take many steps.

AO2 should be seen as an integral part of your creative journey and not a separate thing.

How does it link with AO1?
Experimenting in response to your chosen artists
How does it link with AO3?
Recording your ideas and observations as you experiment and as your ideas develop. Recording your decisions.
How does it link with AO4?
Your experimentation and refinement of ideas should lead to a skilful personal and meaningful response.

How do I show this in my work?
- Refine a dominant idea by trying various compositions
- Refined techniques in a variety of media
- Have you developed an idea and not just used your first idea?
- Clearly demonstrate purposeful trialling of materials supported by notes
- Attempts to mimic the style/technique of an artist in your own work
- Selection and rejection of ideas
- Problem solving
- Showing stages of development

Reaching for the level 8/9:
How do I show
A highly developed ability to thoughtfully refine ideas.
A highly developed ability to effectively select and purposefully experiment with appropriate media, materials, techniques and processes.
The level to which you experiment. Do you go through a number of processes refining along the way? Have you copied the artists work in a superficial way or have you really explored their technique? Have you taken risks and shown a highly developed creative journey as a result? Are your ideas unique?

Annotate your own work
- What have you produced and why?
- How does it link to the artist you have been looking at?
- Has the technique been successful and why?
- How might your work now develop?
- What have your learnt?
- What are your decisions?

Refinement is important, not just repetition

Y10 LP2 Art: AO2: Decay

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1. How to refine your work.
2. How to select and explore multiple materials
3. Select key media to explore specific techniques
4. Identify successful use of materials
5. Explore multiple materials
6. Evaluate your use of processes
7. Identify successful experimentation.

KEY VOCABULARY	DEFINITION
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Colour	Different shades and tones
Review	An evaluation of artwork
Reflect	Think carefully and make comments

AO2

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How do I show this in my work?
- **Refine a dominant idea by trying various compositions**
- **Refined techniques in a variety of media**
- **Have you developed an idea and not just used your first idea?**
- **Clearly demonstrate purposeful trialling of materials supported by notes**
- **Attempts to mimic the style/technique of an artist in your own work**
- **Selection and rejection of ideas**
- **Problem solving**
- **Showing stages of development**

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- How might your work now develop?
- What have your learnt?
- What are your decisions?

Refinement is important, not just repetition

Y10 LP1 Business Knowledge Organiser – Unit 2 (Controlled Assessment)

Key Terms

Customer service: the interaction between a retail business and its customers, taking care of customers' expectations through professional, high quality assistance
Customer expectations: standards, beliefs, and hopes that customers have about a product, service, or brand
Rapport: building a relationship with customers
Patience: the ability to remain calm, composed, and understanding when interacting with customers
Empathy: he ability to understand and share the feelings of customers, viewing situations from their perspective
Courtesy: being polite, respectful, and considerate in all situations with customers
Market research is the process of gathering and analyzing information about a market, including customers, competitors, and the overall industry, to understand consumer preferences, identify opportunities, and make informed business decisions
Questionnaire/Survey: a research tool consisting of a list of questions used to collect data from individuals or groups
Focus group: a group of people are asked about their perceptions, opinions, beliefs and attitudes in relation to a certain product
Mystery Shopper: someone hired by a business, or a third-party company, to anonymously evaluate the customer service and overall experience by posing as a regular customer

1. The importance of customer service
2. Identify the key principles of customer service
3. Types of retail customers
4. Explore different primary and secondary research methods
5. Explore the different wats to use research collected
6. Complete controlled assessment tasks

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Year 10 BTEC Performing Arts LP2 Knowledge Organiser

This Learning Programme you will be completing **Component 2.** You will be learning how to develop your performance skills.

LP2.1

LP2.2

LP2.3

LP2.4

LP2.5

LP2.6

LP2.7

Key Vocabulary – Vocal skills	
Diction and Projection	Diction means pronouncing your speech clearly. Projection is making sure your voice can be heard (this doesn't mean shouting).
Emphasis and Volume	Emphasis is when you make a word stand out "I never said **you** stole my hat" is different from "I never said you stole **my** hat". Volume is how loud or quiet the voice is. Don't forget words such as whisper and shout.
Pitch	Pitch means how high or low your voice is. Low pitch may convey sadness, whilst high pitch could convey joy.
Accent	Accent is the way you pronounce your words. It is used to indicate where a character is from, specifically which country or region. It can help distinguish class and status.
Rhythm and Tempo	Rhythm is where we pause and leave gaps in speech. This could show a character is thinking or distressed. Tempo is how fast or slow the speech is. E.g. a fast tempo could show someone is excited, a slow tempo could show someone is sleepy or confused.
Tone	Tone describes the emotion behind the line. It can convey meaning. For example: an angry tone

Physical skills to become a character for rehearsal and performance (using your body)	
Gestures	Using your hands to highlight meaning or convey emotion. E.g. Scratching your head if you are confused or waving to say 'Hello'.
Stance	The way someone stands usually to do with feet positioning. This could be with your feet really wide apart or really close together, for example.
Posture and Body Language	Posture and body language is how you hold and position your body to show emotion or a character's personality. E.g. shoulders back and chest out to show confidence. Hanging head and shoulder may show shame or sadness
Expression	Also known as 'facial expressions'. Using your face to communicate emotions and reactions. Smiling to show happiness, frowning to show anger, raising one eye brow to show confusion for example.
Eye Contact (Focus)	Looking into someone else's eyes. This could be another character or an audience member. Making eye contact makes it clear who you are speaking to. Avoiding eye contact can suggest feeling awkward or upset.
Dynamics and Movement	Dynamics means HOW you move. For example, sharply / smoothly. Movement is HOW your character walks. For example, with a limp or taking large steps

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Year 10 BTEC Performing Arts LP2 Knowledge Organiser

Stagecraft skills for performance and rehearsal - BEPLACES		
B	**Blocking**	Working out the movement and positioning of all the actors on stage. Where you will stand and when you will move
E	**Entrances and Exits**	Where and when you come on and off stage.
P	**Proxemics and use of space**	Proxemics is how close or near you are to others on stage. This can help to communicate meaning e.g. if your character is scared of another character you might stand far away. Use of space is where you position yourself on the stage so the audience can see you and others clearly.
L	**Levels**	How high or low you are positioned on the stage. This could be to communicate how important you are or to show you are in a different place to other characters.
A	**Audience awareness**	Being mindful of what the audience will be able to see and hear and adapting your positions and voice to make sure they can understand everything clearly.
C	**Concentration and Focus**	Being organised and sensible in your performance and staying in role at all times.
E	**Energy**	Putting effort into your performance and making sure you are lively and enthusiastic when you perform.
S	**Set and Props Interaction**	Using the objects on stage confidently to show something about your character or the situation. E.g. snatching a bag of sweets to show your character is greedy.

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Year 10 English LP2 Knowledge Organiser

This Learning Programme you will be learning about how to critically engage with Post-1914 prose - Charles Dicken's A Christmas Carol - and know how to critically track a text, form an opinion on setting and character and understand the context.

Key Vocabulary	
Allegory	a story that can be interpreted to reveal a hidden meaning, typically a moral or political one
Ambiguity	the quality of being open to more than one interpretation, resulting in uncertainty of meaning.
Analepsis	a literary device in narrative, in which a past event is narrated at a point later than its chronological place in a story.
Motif	A dominant or recurring idea.

1

Ebenezer Scrooge – A selfish business-man who transforms into a charitable philanthropist. Fred – Scrooge's nephew whose party invitation he declines
Jacob Marley – Scrooge's dead partner who returns as a ghost to warn scrooge to change his ways. Bob Cratchitt – Scrooge's clerk who doesn't have much money. He loves his family and is shown to be happy and morally upright. Tiny Tim – Bob's ill son whose story plays a part in inspiring Scrooge's transformation. Mrs Cratchitt – Bob's wife
The Ghost of Christmas Past – A strange combination of young and old, wearing white robes and looking like a candle. The Ghost of Christmas Present - A portly, jovial gentleman surrounded by a warm glow. He brings joy on the most needy townsfolk. The Ghost of Christmas Yet To Come – A robed and hooded spirit who confronts Scrooge with his own tombstone.
Fezziwig – Scrooge's ex-employer Belle – A woman who scrooge was in love with who left him due to his greed. Fan – Scrooge's sister

2

1824 – Dickens' father is sent to jail for debt and Dickens has to give up his education until his father inherits some money and he goes to a private school. Dickens was put to work in a warehouse, pasting labels on bottles. He had experience of poverty. Dickens became a writer of fiction and journalism, reporting on court cases and working for radical newspapers on his disillusionment with politics and the class system.
1834 – Poor Law Amendment Act – Led to a cut in aid given to paupers to help them stay in their own homes. Workhouses were created which poor people would have to live and work in, if they were unable to pay for their own housing.
December 1840 and February 1843 – Children's Employment Commission reports.
September 1843 – Dickens visits a "Ragged School."
October 1843 – Dickens speaks at an event for Manchester Athenaeum, an organisation bringing education and culture to the working masses.
December 1843 Dickens writes A Christmas Carol focusing on how many of society's ills can be blamed on greed for money and status.

3

Key Themes:
Social Responsibility Capitalism Poverty Class Isolation Transformation The passage of time Family Redemption Christmas Spirit

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Year 10 English LP2 Knowledge Organiser

Key stylistic features and terms:

4

Light imagery; Morality tale; Malthusian economics; Pathetic fallacy; Symbolism; Social Injustice; Redemption.

Plot summary: 1. Ebenezer Scrooge is at work in his counting house. Despite the Christmas Eve cold, he refuses to spend money on coals for the fire. Scrooge's turns down his nephew, Fred's, invitation to his Christmas party and the request of two men who want money for charity. 2. Scrooge is visited by the ghost of his dead partner, Jacob Marley, who tells Scrooge that, due to his greedy life, he has to wander the Earth wearing heavy chains. Marley tries to stop Scrooge from doing the same. He tells Scrooge that three spirits will visit him during the next three nights. Scrooge falls asleep. 3. He wakes and the Ghost of Christmas Past takes Scrooge into the past. Invisible to those he watches, Scrooge revisits his childhood school days, his apprenticeship with a jolly merchant named Fezziwig, and his engagement to Belle, who leaves Scrooge as he loves money too much to love another human being. Scrooge sheds tears of regret before being returned to his bed. 4. The Ghost of Christmas Present shows Scrooge Christmas as it will happen that year. Scrooge watches the Cratchit family eat a tiny meal in their little home. He sees Bob Cratchit's crippled son, Tiny Tim, whose kindness and humility warm Scrooge's heart. The spectre shows Scrooge his nephew's Christmas party. Scrooge asks the spirit to stay until the very end. Toward the end of the day the ghost shows Scrooge two starved children, Ignorance and Want. He vanishes as Scrooge notices a dark, hooded figure coming. 5. The Ghost of Christmas Yet to Come takes Scrooge through a sequence of scenes linked to an unnamed man's death. Scrooge, is keen to learn the lesson. He begs to know the name of the dead man. He finds himself in a churchyard with the spirit pointing to a grave. Scrooge looks at the headstone and is shocked to read his own name. He is desperate to change his fate and promises to change his ways. He suddenly finds himself safely tucked in his bed. 6. Scrooge rushes out onto the street hoping to share his newfound Christmas spirit. He sends a turkey to the Cratchit house and goes to Fred's party, As the years go by, he continues to celebrate Christmas with all his heart. He treats Tiny Tim as if he were his own child, gives gifts for the poor and is kind, generous and warm.

5

"Oh! But he was a tight-fisted hand at the grindstone, Scrooge…a squeezing, wrenching, grasping, scraping, clutching, covetous old sinner! Hard and sharp as flint, from which no steel had ever struck out generous fire; secret, and self-contained, and solitary as an oyster."
"It was cold, bleak, biting weather: foggy withal"
"He had so heated himself with rapid walking in the fog and frost, this nephew of Scrooge's, that he was all in a glow."'
"Foggier yet, and colder. Piercing, searching, biting cold."
"…as I hope to live to be another man from what I was, I am prepared to bear you company, and do it with a thankful heart."
"The chain he drew was clasped about his middle. It was long, and wound about him like a tail
"Old Fezziwig…laughed all over himself…and called out in a comfortable, oily, rich, fat, jovial voice:"
"'Why did I walk through crowds of fellow-beings with my eyes turned down?"
"'The school is not quite deserted,' said the Ghost. 'A solitary child, neglected by his friends, is left there still.'
"I am as light as a feather, I am as happy as an angel. I am as merry as a schoolboy. I am as giddy as a drunken man. A merry Christmas to everybody! A happy New Year to all the world!"

6

Key quotations

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Year 10 Geography LP2 Knowledge Organiser

1

This Learning Programme you will be learning about Stoke on Trent. This will include its location, industrial heritage and the challenges it faces after many pottery factories and coal mines closed down in the 80s.

Key Vocabulary	
Brownfield site	Land that has been used, abandoned and now awaits some new use. Often in the inner city.
Derelict buildings	Abandoned buildings and wasteland.
Greenfield site	A plot of land, often on the edge of an urban area that has not yet been built on.
Pollution	The presence of chemicals, noise, dirt or other substances which have harmful effects on the environment.
Traffic congestion	Occurs when there is too much traffic for roads to cope with. Traffic jams form and traffic slows to a crawl.
Urbanisation	The process by which an increasing percentage of a country's population comes to live in towns and cities.
Urban regeneration	The revival of old parts of the built-up area by either installing modern facilities in old buildings or opting for redevelopment.

2

3

Location and background:
Stoke on Trent is a city in Staffordshire, located mid way between Manchester and Birmingham. The city grew during the industrial revolution as each of it's 6 towns grew into one large urban area.

City's importance:
- The city has a heritage around the pottery industry, with a number of
- pottery museums and listed buildings
- Stoke has a thriving community of international students.
- Stoke has two major UK universities popular with young students.
- It is a very important city for warehouses and distribution, due to its location and transport infrastructure

Migration to Stoke:
During the industrial revolution, the population dramatically increased with people migrating from nearby rural communities. With the attraction of working in the large pottery factories or mines, people migrated from rural areas. More recently, refugees have arrived from Syria and Iraq, and economic migrants from Africa and Eastern Europe. Also Stoke has attracted thousands of students from the UK & abroad.

City's opportunities:
Social: Stoke has various cultural attractions such as the Regent Theatre & museums. Also Festival Park/ The Hive are popular for shopping and entertainment.
Economic: Retail and care contribute to thousands of jobs. Bet 365 and the Royal Stoke are major employers. The Universities also contribute to the city's economy.
Environmental: The original 6 towns of Stoke have Victorian Parks. Reclaimed sites include Forest Park and Westport Lake. Trentham Gardens is in the suburbs whilst The Peak District is a short drive away.

cineworld CINEMAS bet365 STAFFORDSHIRE UNIVERSITY Keele University

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Year 10 Geography LP2 Knowledge Organiser

4

City challenges:

Social: Deprivation- levels of poverty are high, as are % of those without qualifications/renters
A third of households live in the 10% of the most deprived wards in the UK.
Economic: Closure of the pottery factories caused large scale unemployment.
Poor transport connections to large economic hubs such as London and Manchester.
Environmental: Urban sprawl has led to increased pressure and decline of greenfield sites around the city.

Regeneration in Stoke on Trent

Multiple schemes due to deindustrialisation

- The Hive: £20m project to regenerate a brownfield site in the CBD
- Smithfield development: £200m across 4 buildings, mainly council offices and a hotel
- Capital and Centric: regeneration of goods warehouse into apartments, A500 in Stoke
- Hanley Bus Station: £15m development to rebuild and improve public transport infrastructure

5

Problems with waste disposal

Similar to most other local councils, Stoke-on-Trent operates a system where a number of different bins are used to collect and recycle different types of waste. Blue Bin → Recyclables e.g. Cardboard & plastics. Brown Bin → Garden Waste.
Green Box → Paper / Newspapers. Grey Bin → Non – Recyclables. There are also two recycling centres (tips) in the city. These are for larger items, such as kitchen 'white goods' (fridges, washing machines etc) & various other items requiring specialist disposal.

6

There remains an issue with fly-tipping within the city. This is costly to clean up and diverts council funds from other essential services. Stoke-on-Trent City Council spent £500,000 on fly-tipping cleaning in 2017. This is sometimes due to local residents and some-times due to criminal gangs who remove industrial waste & don't dispose of it properly. Some people think that fly-tipping may increase due to recent charges at recycling centres

Inequalities in education

7

The cycle of Urban Decline, leading to Urban Deprivation often links to low educational outcomes. The lack of jobs and high unemployment rates often lead to low aspirations. As a result it means that there are a high number of people in the city with **no qualifications** and a low number of people with **Level 4** (Degree Equivalent) qualifications. This leads to companies sometimes being reluctant to move to a city where they may not be able to recruit skilled workers for their business.

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Year 10 Health and Social LP2 Knowledge Organiser

This Learning Programme you will be learning about Component 1 - The human lifespan and development. Understanding how people develop throughout the different life stages and the factors that can either progress or hinder development.

Key Vocabulary	
accessed	Information or support that can be used to support individuals
Life events	An event that has significant occurrence or transition in an individual's life
Wellbeing	The state of being comfortable, healthy or happy
professional	Appropriately competent or skilled person
Standard of living	Degree of wealth, comfort available ro a person or community
Social opportunities	Support, service, benefit possibilities that society offers to individuals

1

Case study: Isha

Isha is aged 34 and works in a large city as a lawyer. She lives in a shared house with other young professionals because the cost of housing in her area is very high. Her family home is 25 miles away. She has access to good public transport links and visits her family regularly. Two of Isha's housemates have recently moved out. This means the remaining tenants have to cover a larger amount of the housing costs each. This has changed Isha's standard of living because she has had to reduce her usual spending. Isha has recently met someone who works in a similar job role to her. They have now formed a romantic relationship. Although the change in her financial situation is having an impact on her social opportunities, Isha has a positive outlook about the future.

2

Case study: Nadia

Nadia is 67 years old and retired from her job as a school catering assistant seven years ago. She has a small pension from her job and was able to begin claiming her state pension this year. This has meant that her income has increased. Nadia used to go to the local board game club with her husband, who died two months ago. Since her husband's death, Nadia has not returned to the club because her self-confidence has decreased. Several friends from the club have telephoned and visited Nadia to see how she is and have offered to take her out for a day. Nadia is concerned that she will not be welcome in social situations without her husband and she has low self-esteem. She and her husband had no children, but she is fond of her nieces and nephews.

3

Life events:

These can impact any of/all of the PIES. Best way to think of how is to imagine you are the person impacted. These are also either expected or unexpected.

Expected

- Bereavement (death of a loved one) - New relationships - Marriage - Parenthood - Moving house

Unexpected

- Ill health – when someone is severely ill - Accident or injury - Divorce - Exclusion

Example: Impact of lifestyle on development

Being physically active is a lifestyle factor that affects development. Regular movement or exercise helps to strengthen bodies, improves muscle tone, flexibility and bone density, improved cognitive functions and psychological (mental) health.

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Year 10 Health and Social LP2 Knowledge Organiser

Factors affecting development

4

	What they mean?	Examples
Physical factors	Factors affecting the body physically, typically individuals are born with these, or have a major issue to cause them.	Inherited conditions – sickle cell disease, cystic fibrosis, muscular dystrophy, Marfan syndrome and Huntington's disease Experience of illness and disease Mental ill health – anxiety, stress Physical ill health – cardiovascular disease, obesity, type 2 diabetes Disabilities Sensory impairments
Lifestyle	Factors based on how individuals live their lives – what they eat	Nutrition Physical activity Smoking/vaping Substance misuse – alcohol, cannabis, opiates
Emotional	Factors affecting the feelings of an individual	Fear Anxiety/worry Upset/sadness Grief/bereavement Happiness/contentment Security attachment
Social	Factors that involved interacting with other people in any manner	Supportive and unsupportive relationships – friends, family, peers and colleagues Social inclusion and exclusion Bullying discrimination
Cultural	Factors that are influences be characteristics of individuals	Religion Gender roles and expectations Gender identity Sexual orientation Community participation Race
Environmental	Factors based around where and the condition of an individual's living conditions	Housing needs, conditions, location Home environment Exposure to pollutions – air, noise, light
Economic	Factors involving the access to money an individual has	Employment situation Financial resources – income, inheritance, savings, pension

5

Factors affecting development example: Physical development

Infancy: From more being able to walk, talk or feed themselves, to learning how to do these things through development of gross and fine motor skills. Infants will first learn to roll over, then sit up, then stand, then walk. Whereas in **early adulthood**, individuals are at peak fitness, then are completely independent, have gone through puberty and in females will be in peak opportunity for reproduction.

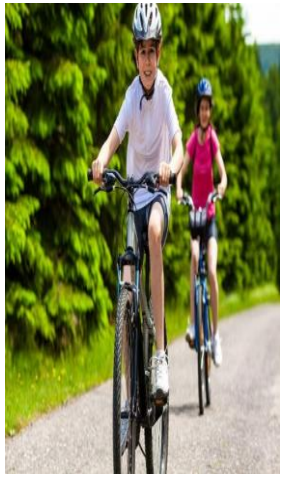
6

Support Types

Who is around to support the person and understanding how they help.

Formal support - provided by anyone who is a paid professional. Any job that you can think of, you can use!

Informal support - This is friends, family and provided by people who are provided the care and support because they want to or feel a connection to the person, not because they have to.



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Types of Formal support

- GP
- Social Care worker
- Dentist
- Surgeon

Types of Informal support

- Family
- Friend
- Volunteers

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Year 10 History LP2 Knowledge Organiser

This Learning Programme you will be learning about how health has progressed through the Industrial period to present and the impact this has had on British society.

Key Vocabulary	
T2 Words for the world	
Anesthetic	A substance that puts one to sleep and reduces pain.
Antiseptic	Stops the growth of disease-causing bacteria.
Miasma	Bad smells, often believed to be the cause of illness and disease.
Sanitation	Cleanliness
Aseptic	The absence of germs
Cholera	Infection caused by contaminated food or water.
T3 History specific words	
Germ theory	A theory that diseases are caused by microorganisms
Spontaneous Generation	A theory that living organisms can appear from non-living matter.
Pasteurisation	Sterilization of product, such as milk or wine to keep a product fresh.
Great stink	An event in 1858 where the hot weather exasperated the smell of excrement the River Thames
Laissez faire	A policy of leaving things alone without interfering
Chloroform	A clear liquid used as an anesthetic

1

Medicine got more scientific	Medicine remained traditional
• Robert Burton, John Foyer and James Lind all acknowledged the importance of clean air, exercise, and a healthy diet. • Explorers brought back new medicine from foreign lands. • Hospitals began focusing on treatment over care.	• Bloodletting continued to be a common treatment. • People still had a lot of faith in 'the royal touch' • Herbal remedies continued to be popular and were passed through generations (though some of these did work) • Quacks became more prominent.

2

How did Jenner develop the smallpox vaccine?

1720s – People began to use a basic form of inoculation to prevent smallpox, scratching pus or scabs from smallpox victims onto healthy peoples' skin. However, this was only affordable to the rich, and was risky as the 'dose' of the disease was uncontrollable.

1790s – Country doctor Edward Jenner heard stories that milkmaids who had caught cowpox were not catching smallpox, and experimented by injecting cowpox into an 8-year-old boy. Six weeks later, he attempted to give the boy smallpox, and discovered he had developed immunity. He tested this 16 times to prove it worked, and published his findings in 1798.

1861 - Louis Pasteur discovered Germ Theory proving the theory of Spontaneous Generation wrong but it was not accepted immediately. Robert Koch applied Pasteur's theory to human diseases. He was the founder of bacteriology and proved that specific bacteria caused specific diseases. In 1876 he discovered the microbe responsible for anthrax.

3

Surgery

The key problems of surgery were pain, infection and blood loss.

This was known as the **Black Period** of surgery as around 50% of patients died as a result.

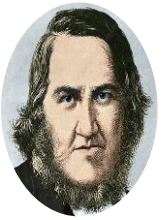
Anesthetics - nitrous oxide was identified by Humphrey Davy and used to extract teeth. Ether was also used by the dentists. It was difficult to inhale though and was also flammable. Chloroform was the alternative and discovered by James Simpson. Surgeons could now take more time over operations but this had initial problems such as dosage. In 1853 Queen Victoria used chloroform in childbirth making it more acceptable.

Antiseptics - Joseph Lister had read about Germ Theory and applied it to the problem of infection. He used carbolic acid to stop the spread of germ spraying it on hands, wounds, equipment and in the room. This dramatically reduced death from infection to 15%, but they were still wearing outdoor clothing and it was not pleasant to use.

The next step was aseptic surgery where germs were removed from the room. Facemasks, rubber gloves, gowns and sterilised instruments replaced public operating theatres and dramatically reduced infections.

James Simpson, - discovered chloroform

Joseph Lister, - Carbolic acid, antiseptic surgery.



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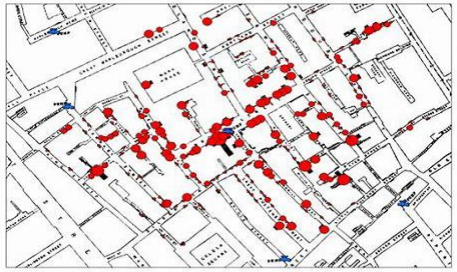
Year 10 History LP2 Knowledge Organiser

4

19th Century Public Health

The Industrial Revolution led to a population explosion and a movement of people into the rapidly expanding towns. The government attitude was laissez-faire meaning they did not believe it was their job to deal with domestic matters. The back-to-back houses and lack of sanitation led to cholera (a waterborne disease) epidemics in 1832, 1838, 1848, 1853-5 and 1865-6. In 1842 Edwin Chadwick collected information about the conditions on towns in the Report on the Sanitary Condition of the Labouring Population. This identified problems in the towns and cities leading to the 1848 Public Health Act. However, this was voluntary and many councils did nothing. million.



Liberal Reforms

The new political party Labour was aimed at working people so something had to be done to win working votes. The Liberal Party came to power in 1906. They introduced; 1906 - Free School Meals, 1907 - School medical service, 1908 - Children and Young Persons Act, The Old Age Pension, 1909 - first job centres, 1911 - the National Insurance Act. These provided a safety net for children, the old, the sick and the unemployed. WW1 and WW2 highlighted that there was still more to be done. In 1942 the Beveridge Report said that people had the right to be free of the 'five giants' that could ruin their lives. Disease, want (need), ignorance, idleness, squalor (very poor living conditions).

5

WW1 Surgery

WW1 was on a scale previously unseen with new injuries caused by new weapons. X-rays had been discovered in 1895 by Wilhelm Rontgen but portable machines could help doctors find shrapnel and look for broken bones without cutting people open. The Army Leg Splint was designed to put broken bones in traction. Infections such as gangrene were common so surgeons cut away the infected flesh and soaked the wound in saline. Blood groups helped doctors complete blood transfusions. In 1938 advances in storage mean the National Blood Transfusion Service opened. Harold Gillies developed plastic surgery to help men who suffered severe facial wounds during WW1 by 1921 he had treated over 5000 servicemen. Heart surgery progressed through Dwight Harken who operated on 134 hearts with no fatalities. Since the war there have been kidney, heart, lung, liver and facial transplants. These became more successful with cyclosporine to stop organ rejection. DNA and stem cells are being mapped and used to grow new organs

6

In 1928 Alexander Fleming was working to find a way to kill the staphylococcus germ. He found penicillin by chance after leaving petri dishes out whilst on holiday. When he came back he noticed that a mould had grown which killed the bacteria. He published his findings about the first antibiotic but did nothing else with it. Ernst Florey and Howard Chain read the article and asked the British government for funding but got only £25. They tested it on policeman Albert Alexander who had an eye infection. It worked until they ran out of penicillin. When America joined WW2 the gave $80 million to develop and mass produce penicillin. By the time of the D-Day landings there was enough to treat the casualties. Other antibiotics followed; streptomycin, tetracycline, mitomycin. In recent years however there are antibiotic resistant bacteria due to overuse including MRSA. Today there are also a variety of alternative treatments including acupuncture, homeopathy and aromatherapy. Vaccines for diphtheria, whooping cough, polio, rubella, MMR and HPV are now available for all.

7

In 1942, Sir William Beveridge wrote a report about the state of Britain, the Beveridge report. He said that people all over the country had a right to the **'five giants'** that could run their lives:

- Disease
- Want (need)
- Ignorance
- Idleness
- Squalor (poor living conditions)

He suggested the Government should take charge of securing society and look after people 'from the cradle to the grave.' The Labour Government promised this to the electorate if they were voted in after WW2. Remember at this point, Winston Churchill, a conservative had been the Prime Minster, as so if Labour were to win the election, they needed to give the British people something to vote.

In 1948 the NHS was created by Health Minister Bevan, many were pleased with the idea of free healthcare at the point of service, providing vital medical treatment and access to doctors,. However, the majority of doctors were opposed to the introduction of the **NHS** as they believed that they would lose money as a result of it. Their main opposition to the NHS was that they would treat fewer private patients and, as a result, lose out financially. They also believed that the NHS would not allow patients to pick their doctor – though this proved to be an unfounded worry.

Once the NHS was introduced, it did prove to be popular with most people. 95% of all of the medical profession joined the NHS. In fact, the NHS proved to be too popular as it quickly found that its resources were being used up. From its earliest days, the NHS seemed to be short of money. Annual sums put aside for treatment such as dental surgery and glasses were quickly used up. The £2 million put aside to pay for free spectacles over the first nine months of the NHS went in six weeks. The government had estimated that the NHS would cost £140 million a year by 1950. In fact, by 1950 the NHS was costing £358 million.

Y10 LP2 ICT Knowledge Organiser – Spreadsheets

Key Vocabulary

Cell: A location on a spreadsheet where data can be inputted

Cell Reference: The address of a cell. This is made up of columns and rows. For example A2.

Spreadsheet: A tool used to organise data so that it is readable.

Excell: Spreadsheet software by Microsoft that you will use in lesson.

Column: The vertical stack of cells. A column's name is a letter. For example, A, B, C

Row: The horizontal row of cells. A row's name is a number. For example, 1, 2, 3, 4

Function: A function is used to make the spreadsheet do things such as maths for you.

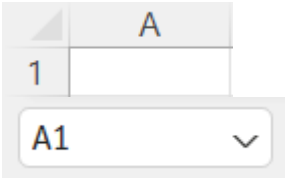
Chart: A visual representation of data.

Macro: Recording keystrokes/mouse movements to automate tasks for you. For example creating a macro that activates when a button is clicked, the spreadsheet will go to a certain page.

Buttons: A tool used to activate macros when pressed.

Formatting: Arranging your spreadsheet so the data is readable and is visually pleasing.

A cell reference



Formulas/Functions

=SUM(cells) – Adds a range of cells together

=AVERAGE(cells) – Gives you the average number from a range of cells

=MAX(cells) – Gives you the biggest number from a range of cells

=MIN(cells) – Gives you the smallest number from a range of cells

=COUNT(cells) – Counts from a range of cells how many have numbers in. Gives you the number of cells with numbers in.

1. Identifying columns, rows and cells. Formatting techniques.
2. Basic formulas and autofill
3. Difference between data and information
4. Analysing data
5. Functions
6. Sort and filter
7. Conditional formatting

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Birches Head Academy

Year 10 (Subject) LP2 Knowledge Organiser

This Learning Programme you will be learning about Rearranging formulae, Right-angled trigonometry, Constructions and loci, Equations of linear graphs, Plotting and interpreting real-life graphs

Key Vocabulary	
theorem	A truth established by means of accepted truths
expression	A combination of numbers, variables, and mathematical operations
loci	A position or place where something occurs or is situated
perpendicular	At an angle of 90° to a given line, plane, or surface
intercept	A point where a line or curve crosses a coordinate axis on a graph
linear	A straight line when graphed
parallel	Side by side and having the same distance continuously between them

1 Rearranging Formulae (two step)

In an equation (find x)

$4x - 3 = 9$

$+3 \quad +3$

$4x = 12$

$\div 4 \quad \div 4$

$x = 3$

In a formula (make x the subject)

$xy - s = a$

$+s \quad +s$

$xy = a + s$

$\div y \quad \div y$

$x = \frac{a+s}{y}$

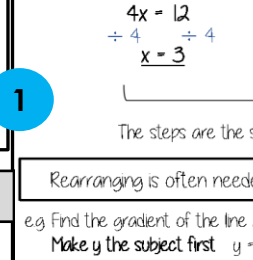
The steps are the same for solving and rearranging

Rearranging is often needed when using $y = mx + c$

e.g. Find the gradient of the line $2y - 4x = 9$

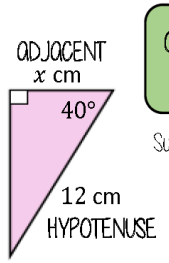
Make y the subject first $y = \frac{4x+9}{2}$ Gradient $= \frac{4}{2} = 2$

Sin and Cos ratio: side lengths



$\sin\theta = \frac{\text{opposite side}}{\text{hypotenuse side}}$

NOTE
The $\sin(x)$ ratio is the same as the $\cos(90-x)$ ratio



$\cos\theta = \frac{\text{adjacent side}}{\text{hypotenuse side}}$

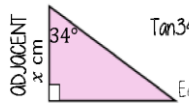
Substitute the values into the ratio formula

Equations might need rearranging to solve

Tangent ratio: side lengths

$\tan\theta = \frac{\text{opposite side}}{\text{adjacent side}}$

Substitute the values into the tangent formula



$\tan 34 = \frac{10}{x}$

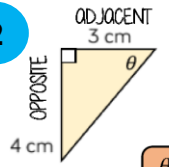
Equations might need rearranging to solve

$x \times \tan 34 = 10$

$x = \frac{10}{\tan 34} = 14.8\text{cm}$

2 Sin, Cos, Tan: Angles

Inverse trigonometric functions



Label your triangle and choose your trigonometric ratio

Substitute values into the ratio formula

$\tan\theta = \frac{3}{4}$

$\theta = \tan^{-1}\frac{3}{4}$

$\theta = 36.9°$

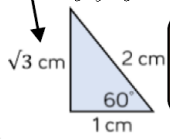
$\theta = \tan^{-1}\frac{\text{opposite side}}{\text{adjacent side}}$

$\theta = \sin^{-1}\frac{\text{opposite side}}{\text{hypotenuse side}}$

$\theta = \cos^{-1}\frac{\text{adjacent side}}{\text{hypotenuse side}}$

Key angles

This side could be calculated using Pythagoras

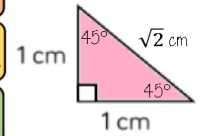


Because trig ratios remain the same for similar shapes you can generalise from the following statements

$\tan 30 = \frac{1}{\sqrt{3}}$ $\quad \tan 60 = \sqrt{3}$

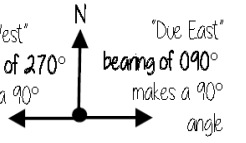
$\cos 30 = \frac{\sqrt{3}}{2}$ $\quad \cos 60 = \frac{1}{2}$

$\sin 30 = \frac{1}{2}$ $\quad \sin 60 = \frac{\sqrt{3}}{2}$



$\tan 45 = 1$ $\quad \cos 45 = \frac{1}{\sqrt{2}}$ $\quad \sin 45 = \frac{1}{\sqrt{2}}$

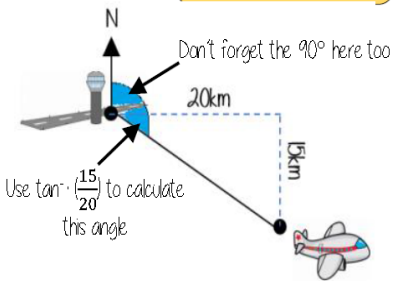
Bearings with right-angled geometry



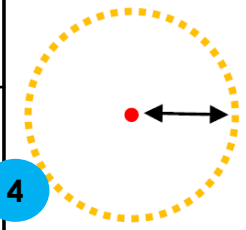
Look for Right-angles:
Pythagoras
Trigonometry (Sin, Cos, Tan)

3

A plane flies East for 20km then turns South for 15km
Find the bearing of the plane from where it took off



4 Locus of a distance from a point

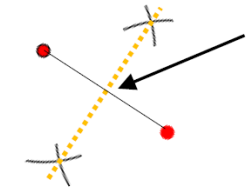


All points are equidistant (the same distance) from the fixed point in the middle

Equipment needed
The radius is the distance from the fixed point

If the point is in the corner it can only make a quarter circle

Locus equidistant from two points



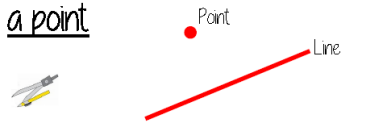
Also a perpendicular bisector

Because if the points are joined, this new line intersects it at a 90°

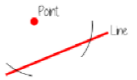
Keep the compass the same size and draw two arcs from each point

Join the intersections with a ruler
All points on this line are equidistant from both points

Construct a perpendicular from a point



Use a compass and draw an arc that cuts the line. Use the point to place the compass



Keep the compass the same distance and now use your new points to make new interconnecting arcs

Connecting the arcs makes the bisector

If P is a point on the line the steps are the same

Birches Head Academy

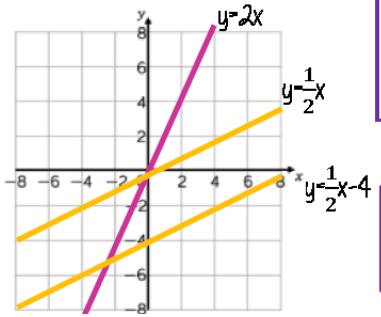
Year 10 (Subject) LP2 Knowledge Organiser

Compare Gradients

$y = mx + c$

5

The **coefficient** of x (the number in front of x) tells us the gradient of the line



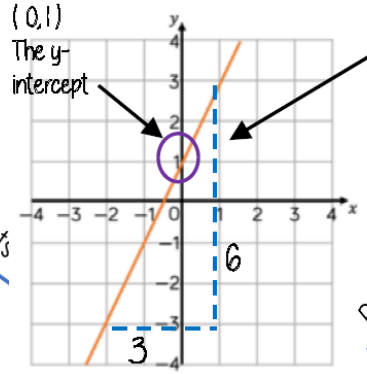
The **greater** the gradient – the **steeper** the line

Parallel lines have the **same** gradient

Find the equation from a graph

Positive gradients

Negative gradients



$y = 2x + 1$

The direction of the line indicates a positive gradient

Positive gradients

Negative gradients

Real life graphs

A plumber charges a £25 callout fee, and then £12.50 for every hour.
Complete the table of values to show the cost of hiring the plumber.

Time (h)	0	1	2	3	8
Cost (£)	£25				£125

The y-intercept shows the minimum charge
The gradient represents the price per mile

In real life graphs like this values will always be positive because they measure distances or objects which cannot be negative

Direct Proportion graphs To represent direct proportion the graph must start at the origin

6

When you have 0 pens this has 0 cost
The gradient shows the price per pen

A box of pens costs £2.30
Complete the table of values to show the cost of buying boxes of pens.

Boxes	0	1	2	3	8
Cost (£)		£2.30			

y = mx + c

The **coefficient** of x (the number in front of x) tells us the gradient of the line

$y = mx + c$

The value of **c** is the point at which the line crosses the y-axis. **Y intercept**

y and x are **coordinates**.

The equation of a line can be rearranged: E.g.

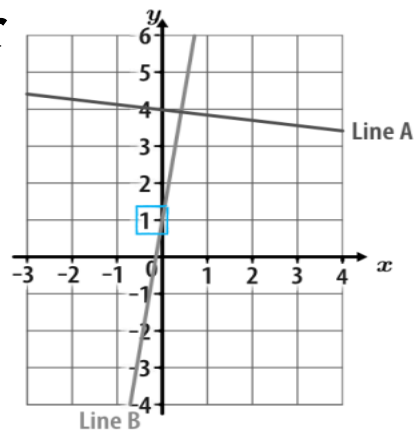
$y = c + mx$

$c = y - mx$

Identify which coefficient you are identifying or comparing.

Perpendicular lines

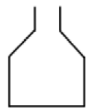
7



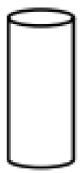
Line A
gradient = $-\frac{1}{7}$

Line B
gradient = 7
y-intercept = 1
y=mx+c
y=7x+1

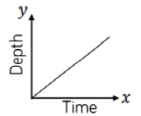
Flow problems & graphs



This will fill at a constant rate, then as the space decreases it will speed up and the neck of the bottle fill at a faster constant speed



The cylinder will fill at a constant speed



Units are important. Ensure any volume calculations are the same unit as the rate of flow

25

Birches Head Academy

Year 10 (Music) LP2 Knowledge Organiser

This Learning Programme you will be learning about styles of music and their sonic and compositional features to complete C1.

Key Vocabulary	
Sonic	Denoting or relating to sound.
Compositional	Features used in the creation of the music.
Loop	A short repeating sound in a DAW.
Stem	A short segment of a song that can be used in a DAW
Harmony	Notes combined to form a pleasing sound
Texture	How many sounds there are present e.g. thick if there are more sounds.
Structure	How the music is organised or laid out.
Genre	A style of music.
DAW	A programme upon which music can be created using a computer e.g. Garageband.

1

EDM (Electronic Dance Music)

The stylistic features of Electronic Dance Music are usually:

- Fast tempo (usually between 120-180bpm)
- Electronic timbres (e.g. computer generated instrument sounds)
- Use of samples (short parts of another song)
- Use of drum machines/beat makers

EDM – Techniques and Effects

Panning – The distribution of an audio signal between left and right. It means you could have some tracks playing through the left speaker and some through the right.
Reverb – An effects processor that makes it sound like the space is bigger (this is different to echo)
Automation – Programming a DAW to change parameters such as volume or effects processors.
EQ – An effects processor in a DAW that controls how much of each frequency is heard. This can be automated so it changes.

2

Reggae Music

The stylistic features of Reggae Music are usually:

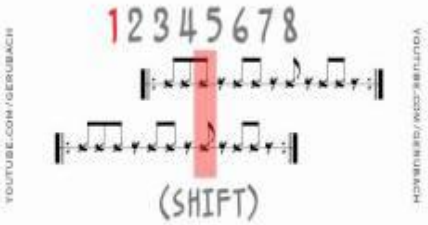
- Syncopated or off beat chords played on beats 2 and 4
- Simple diatonic chord progressions (usually in a major key)
- Strophic form (verse/chorus structure)
- Prominent bass riffs

3

Minimalism

The stylistic features of Minimalist music are usually:

- Compositions based on short ideas or patterns
- Use of an ostinato
- Phase shifting (see picture) – moving a rhythm forwards or backwards a beat to create tension
- Simple chord progressions
- Additive Composition – adding notes or rhythms to allow the piece to develop
- No formal structure or instrumentation used



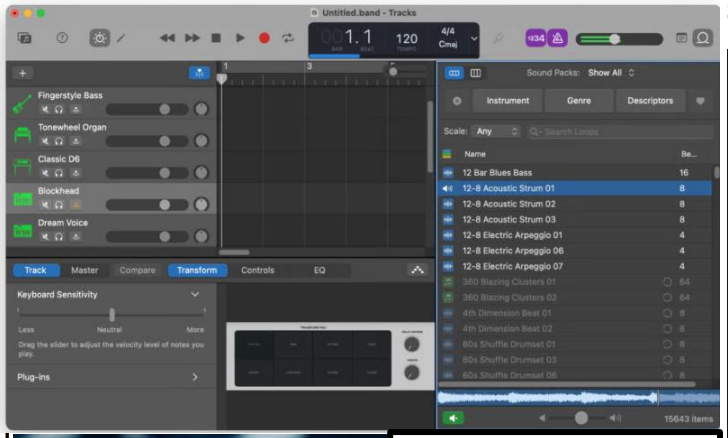
Birches Head Academy

Year 10 (Music) LP2 Knowledge Organiser

Garageband – Handy Hints and Tips

4

- When creating a dance track or a piece of EDM music, a good place to start is by adding an Apple Loop to create your piece around (see picture next to this box)
- If you need to know how to cut a track in GarageBand, a good way is to position the playhead bar at the place you'd like the track to split and then use the shortcut **Command + T**
- Double click on any GREEN tracks to open the piano roll. This will allow you to alter the length and the pitch of each individual note without having to play it in again.
- Next to the pictures are some handy keyboard shortcuts for Garageband.



This is the command button used on an iMac for some Garageband shortcuts

Showing & Hiding Various Functions

5

Action	Shortcut
Automation	A
Smart Controls Window	B
Score Editor	N
Loop Browser	O
Piano Roll Editor	P
Library	Y
QuickHelp	Shift+/ (backslash)
Full Screen	Command+Control+F
Musical Typing	Command+K
Master Track	Command+Shift+M

Tricks with Tracks

Action	Shortcut
Create new track	Command+Option+N
Create new real audio track	Command+Option+A
Delete selected track	Command+Delete
Mute toggle for selected track	M
Solo toggle for selected trackS	

7 Writing A Commentary

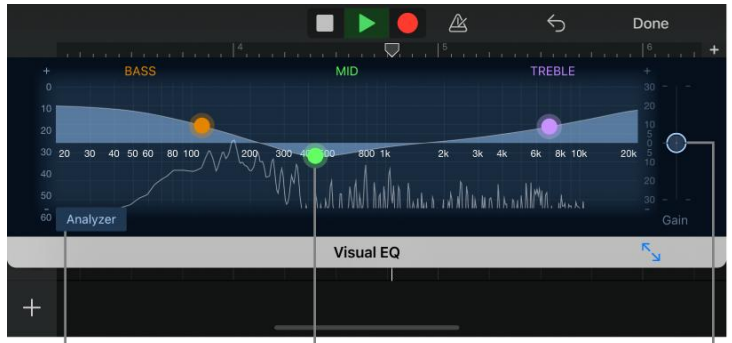
For Task 2 of Component 1, you have to write a commentary for each of your two pieces taking the examiner through your thoughts as you created your pieces and also how they link to the theme. The commentaries can be a really important way of explaining why you did something and can help the examiner to see something different that might give you more marks.

Your commentary should include:

- What your piece of music is (which music product) and which genre it is based on
- How you have used the musical elements to create your ideas
- How you have developed your piece
- How your piece links to the theme in the PSA.

It is important that you do this in full sentences and remember good spelling, grammar and punctuation. Use the sentence starters you have been provided with to help you.

6



Birches Head Academy

Year 10 Spanish LP2 Knowledge Organiser

This Learning Programme you will be learning how to talk holidays and some of the key Spanish festivals

Key Vocabulary

Impersonal verb phrase	The way to say "you/one can" (se puede)
Comparative	How to compare things using 'más…que' (more…than) or 'menos…que' (less…than) or 'tan…como' (as…as)
Superlative	How to talk about the biggest or the best or the most…
Imperfect tense	Used to describe things in the past tense
Present tense	Used to talk about thinfs that you normally do
Preterite tense	Used to talk about what you did in the past or to express opinions
Acabar de + infinitive	I have just…
Soler + infinitive	Used to talk about what you usually do or tend to do

LP2.1 – Descubre Andalucía

¡Descubre Andalucía! (pages 30–31):

Describe la foto	*Describe the photo*
Hace …	*It is …*
sol / calor / frío / viento	*sunny / hot / cold / windy*
Hace buen/mal tiempo	*It is good/bad weather*
Llueve / *Nieva	*It is raining / It is snowing*
En la foto …	*In the photo …*
a la izquierda / a la derecha	*on the left / on the right*
en el centro / al **fondo**	*in the centre / in the background*
hay …	*there is / there are …*
un bosque / un río	*a forest / a river*
un barco / una **torre**	*a boat / a tower*
una playa / agua	*a beach / water*
vistas bonitas	*beautiful views*
muchos árboles/animales	*lots of trees/animals*
muchas casas/personas	*lots of houses/people*
Está(n) en …	*It is / They are in …*
el campo / la costa	*the countryside / the coast*
un pueblo / una ciudad	*a small town / a city*
¿Te gustaría visitar …?	*Would you like to visit …?*
(No) Me gustaría visitar … porque …	*I would (not) like to visit … because …*
(no) me gusta la historia	*I (don't) like history*
(no) me gustan los edificios antiguos	*I (don't) like old buildings*
los montes (preciosos)	*(beautiful) hills*
los caballos / los pájaros	*horses / birds*
los turistas (extranjeros)	*(foreign) tourists*
las tiendas / los *monumentos	*shops / monuments*
el paisaje hermoso	*beautiful landscape*
el turismo (verde)	*(green) tourism*
la escuela de *esquí / el parque **acuático**	*ski school / water park*
Me gusta / Me gustaría …	*I like to / I would like to …*
caminar / descansar	*walk / rest, relax*
*hacer ciclismo (de montaña)	*go cycling (mountain biking)*
montar a caballo	*go horse riding*
tomar el sol	*sunbathe*
ver un espectáculo de flamenco	*watch a flamenco show*
apreciar la naturaleza	*appreciate nature*
estar al aire libre	*be outside*
hacer turismo	*go sightseeing*
hacer **natación** / nadar	*go swimming / swim*

LP2.3 – De fiesta en fiesta

¡De fiesta en fiesta! (pages 34–35):

Las fiestas	*Festivals*
Si te gusta/interesa …	*If you like / are interested in …*
hay que …	*you/one must …*
ver las Fallas	*see the Fallas*
ir a la Tomatina	*go to the Tomatina*
las costumbres / los desfiles	*customs / parades*
los *festivales / las fiestas	*festivals*
los fuegos artificiales / las tradiciones	*fireworks / traditions*
las corridas	*bullfights*
El/La/Los/Las más / menos …	*The most / least …*
conocido/a(s) / divertido/a(s)	*well-known / fun*
emocionante(s) / histórico/a(s)	*exciting / historic*
interesante(s) / animado/a(s)	*interesting / lively*
peligroso/a(s) / popular(es)	*dangerous / popular*
rico/a(s) / típico/a(s)	*rich, tasty / typical*
mayor / menor	*biggest / smallest*
mejor / peor	*best / worst*
Cada año/mañana …	*Every year/morning …*
queman / participan	*they burn / participate*
corren (delante de los toros)	*they run (in front of the bulls)*
organizan / tiran	*they organise / throw*
celebran / bailan	*they celebrate / dance*
llevan / comen	*they wear / eat*

¿Qué van a tomar?	*What are you going to have?*
Quisiera …	*I would like …*
la carta / la cuenta	*the menu / the bill*
una mesa para … personas	*a table for … people*
dentro / fuera	*inside / outside*
Voy/Vamos a pedir/tomar …	*I/We are going to order/have …*
arroz / pollo / pescado	*rice / chicken / fish*
una hamburguesa	*a hamburger*
una ensalada *mixta	*a mixed salad*
paella / los tomates	*paella / tomatoes*
*una tortilla española	*a Spanish omelette*
patatas fritas	*chips*
una botella de agua (para compartir)	*a bottle of water (to share)*

LP2.2 – en ruta

¿Adónde te gustaría ir de vacaciones?	*Where would you like to go on holiday?*
Me gustaría ir (de vacaciones) a …	*I would like to go (on holiday) to …*
¿Cuándo te gustaría ir?	*When would you like to go?*
Me gustaría ir (de vacaciones) …	*I would like to go (on holiday) …*
en primavera / en verano	*in spring / in summer*
en otoño / en invierno	*in autumn / in winter*
al campo / a la ciudad	*to the countryside / to the city*
a la costa / a la montaña	*to the coast / to the mountains*
¿Con quién te gustaría ir?	*Who would you like to go with?*
Me gustaría ir con …	*I would like to go with …*
mi familia	*my family*
mi pareja / mis amigos/as	*my partner / my friends*
Me gustaría ir **solo/a**	*I would like to go alone*
¿Qué se puede hacer?	*What can you do?*
Se puede(n) …	*You/One can …*
Quisiera / Me gustaría …	*I would like to …*
disfrutar de la vida cultural	*enjoy the cultural life*
hacer deportes de **aventura**	*do adventure sports*
ir al cine	*go to the cinema*
ir de compras	*go shopping*
pasear por las calles	*walk through the streets*
ver una **obra** de teatro	*watch a play*
apreciar el paisaje	*appreciate the landscape*
hacer castillos de **arena**	*build sandcastles*
descubrir la arquitectura	*discover the architecture*
probar platos típicos	*try typical dishes*
sacar fotos	*take photos*
¿Cómo te gustaría viajar?	*How would you like to travel?*
Me gustaría / Quisiera …	*I would like to …*
viajar en / coger el …	*travel by / take the …*
autobús / avión / barco	*bus / plane / boat*
coche / metro / tren	*car / underground / train*
ir a pie	*go on foot*
porque …	*because …*
es más/menos … que …	*it's more/less … than …*
es tan … como …	*it's as … as …*
barato / caro	*cheap / expensive*
cómodo / **económico**	*comfortable / inexpensive*
lento / rápido	*slow / fast*
seguro / práctico	*safe, secure / practical*
es mejor/peor que …	*it's better/worse than …*
me gusta hacer ejercicio	*I like doing exercise*
la otra gente me molesta	*other people annoy me*
no aguanto (los aviones)	*I can't stand (aeroplanes)*
hay …	*there is/are …*
retrasos / obras / huelgas	*delays / roadworks / strikes*
mucho tráfico / mucha gente	*lots of traffic / people*

Birches Head Academy

Year 10 Spanish LP2 Knowledge Organiser

LP2.4 – mis últimas vacaciones

¿Qué tal tus últimas vacaciones?	*How was your last holiday?*
Acabo/Acabamos de ...	*I/We have just ...*
volver/**regresar** de	*come back / returned from*
visitar / ir a	*visited / been to*
Viajé/Viajamos en ...	*I/We travelled by ...*
donde pasé/pasamos ...	*where I/we spent ...*
el fin de semana / una semana	*the weekend / a week*
cinco días / la Nochevieja	*five days / New Year's Eve*
Me/Nos gustó/encantó	*I/We liked/loved it*
Fue genial/estupendo	*It was great/amazing*
Lo pasé bien/mal/**fatal**	*I had a good/bad/terrible time*
¿Qué hiciste?	*What did you do?*
Por la mañana/tarde ...	*In the morning/afternoon ...*
Por la noche...	*In the evening / at night ...*
compré / decidí	*I bought / I decided to*
encontré / fui (de compras)	*I found / I went (shopping)*
jugué / **asistí** a	*I played / I attended*
di un paseo / vi	*I went for a walk / I saw*

¿Qué tiempo hizo?	*What was the weather like?*
Hizo buen/mal tiempo	*It was good/bad weather*
Hizo calor/frío/sol/viento	*It was hot/cold/sunny/windy*
Llovió	*It rained*
¿Qué fue lo mejor/peor de tu visita?	*What was the best/worst thing about your visit?*
El primer/último día ...	*The first/last day ...*
Al día siguiente ...	*The next day ...*
Lo bueno/malo fue cuando ...	*The good/bad thing was when ...*
comí algo malo y *vomité	*I ate something bad and vomited*
me puse enfermo/a	*I became ill*
tuvimos que (volver a casa)	*we had to (go back home)*
dejé / perdí / rompí	*I left / lost / broke*
mi bolsa / mi cámara / mi reloj	*my bag / camera / watch*
mi maleta / tarjeta de *crédito	*my suitcase / credit card*
*mi pasaporte / mis **llaves**	*my passport / keys*

LP2.5 – ¿Dónde te quedaste?

¿Dónde te quedaste? (pages 38–39):

El alojamiento	*Accommodation*
¿Dónde te quedaste?	*Where did you stay?*
Me quedé en ...	*I stayed in ...*
Nos quedamos en ...	*We stayed in ...*
Alquilé / Alquilamos ...	*I / We rented ...*
*un apartamento / una casa	*an apartment / a house*
una habitación / un coche	*a room / a car*
Tenía / No tenía ...	*It had / It didn't have ...*
Había / No había ...	*There was/were / There wasn't/ weren't ...*
No tenía **ni ... ni ...**	*It didn't have either ... or ...*
(un) baño / jardín	*a bathroom / garden*
(un) restaurante	*a restaurant*
(una) cocina / piscina	*a kitchen / pool*
vistas al mar / mucho ruido	*sea views / lots of noise*
El **ascensor** / La *ducha / La luz ...	*The lift / shower / light ...*
La cama / La **calefacción** ...	*The bed / heating ...*
La televisión / La ventana ...	*The TV / window ...*

estaba roto/a	*was broken*
no funcionaba	*didn't work*
El gimnasio / La recepción	*The gym / reception*
estaba cerrado/a	*was closed*
Era (muy/bastante/demasiado) ...	*It was (very/quite/too) ...*
agradable / **decepcionante**	*pleasant / disappointing*
tranquilo/a / moderno/a	*calm, relaxed / modern*
antiguo/a / viejo/a	*old*
Estaba ...	*It was ...*
cerca de / lejos de	*near (to) / far from*
en las afueras	*in the outskirts, suburbs*
limpio/a / sucio/a	*clean / dirty*
(No) Me gustó porque ...	*I (didn't like) liked it because ...*
el dueño (no) era (nada) agradable	*the owner was (not) pleasant (at all)*
*Por un lado / Por otro lado...	*On one hand/the other hand ...*
En cambio ...	*On the other hand / Whereas ...*
Sin embargo ...	*However ...*

LP2.7 – Revision of the vocabulary from the whole LP

LP2.6 – mi aventura por América Latina

¿Qué sueles hacer en verano?	*What do you tend to do in summer?*
Suelo / Solemos (ir al extranjero)	*I / We tend to (go abroad)*
¿Adónde fuiste de vacaciones el año pasado?	*Where did you go on holiday last year?*
El verano pasado ...	*Last summer ...*
Hace ... días/meses/años ...	*... days/months/years ago ...*
fui de vacaciones a ...	*I went on holiday to ...*
Lo mejor/peor fue cuando ...	*The best/worst thing was when ...*
aprendí (mucho) sobre ...	*I learned (a lot) about ...*
conocí a ...	*I met ...*
decidí (visitar ...) / llegué	*I decided (to visit) / I arrived*

fui a un parque temático	*I went to a theme park*
vi un partido / una **exposición**	*I watched a game / saw an exhibition*
visité / **hice turismo**	*I visited / I went sightseeing*
probé un plato típico	*I tried a typical dish*
Costó/Costaron ... euros	*It/They cost ... euros*
¿Adónde vas a ir?	*Where are you going?*
El año próximo / que viene ...	*Next year ...*
voy a / vamos a ...	*I am / We are going to ...*
ir a / pasar ...	*go to / spend ...*
hacer / ver / visitar ...	*do / see/watch / visit ...*
Va a ser ...	*It is going to be ...*

Y10 LP2 Photography: AO2: Angles

This Learning Programme you will befocusing on refinin g
work by exploring ideas, selecting, and experimenting with appropriate media, materials, techniques, and processes.

1. How to refine your work.
2. How to select and explore multiple materials
3. Select key media to explore specific techniques
4. Identify successful use of materials
5. Explore multiple materials
6. Evaluate your use of processes
7. Identify successful experimentation.

Key Vocabulary	Definition
Depth of field	Refers to the distance between the nearest and farthest objects that appear acceptably sharp in an image.
Leading lines	Leading lines in photography are compositional elements that guide the viewer's eye through an image, directing attention to the main subject
Composition	Composition in photography refers to the position of elements inside the frame and how they interact with each other.
Zoom	How close or far away the main feature of the photograph is
Focus	How clear/blurry the main feature of the photograph is
Rule of thirds	The Rule of Thirds is a type of off-center composition where important elements of a photograph are placed along a 3×3 grid, which equally divides the image into nine parts.

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

What does this mean?
You need to demonstrate that you are able to explore, progress and improve your ideas through a development journey of experimentation, trails, samples, working things out as you go.

Refinement means to improve. You will learn from doing something then working out how to do it better and then having another go. This may take many steps.

AO2 should be seen as an integral part of your creative journey and not a separate thing.

How does it link with AO1?
Experimenting in response to your chosen artists
How does it link with AO3?
Recording your ideas and observations as you experiment and as your ideas develop. Recording your decisions.
How does it link with AO4?
Your experimentation and refinement of ideas should lead to a skilful personal and meaningful response.

How do I show this in my work?
- Refine a dominant idea by trying various compositions
- Refined techniques in a variety of media
- Have you developed an idea and not just used your first idea?
- Clearly demonstrate purposeful trialling of materials supported by notes
- Attempts to mimic the style/technique of an artist in your own work
- Selection and rejection of ideas
- Problem solving
- Showing stages of development

Reaching for the level 8/9:
How do I show
A highly developed ability to thoughtfully refine ideas.
A highly developed ability to effectively select and purposefully experiment with appropriate media, materials, techniques and processes.
The level to which you experiment. Do you go through a number of processes refining along the way? Have you copied the artists work in a superficial way or have you really explored their technique? Have you taken risks and shown a highly developed creative journey as a result? Are your ideas unique?

Annotate your own work
- What have you produced and why?
- How does it link to the artist you have been looking at?
- Has the technique been successful and why?
- How might your work now develop?
- What have your learnt?
- What are your decisions?

Refinement is important, not just repetition

30

Birches Head Academy

Year 10 RE LP2 Knowledge Organiser

This Learning Programme you will be learning about the Six core beliefs of Sunni Islam and differences within Shi'a Islam.

Key Vocabulary	
Sunni	Largest branch of Islam whose followers follow the example of Abu Bakr after the death of Muhammad.
Shi'a	Smaller branch of Islam who believe that Ali bin Abu Talib should be the rightful successor.
Tawhid	The oneness of Allah.
Malaikah	Belief in Angels.
Risalah	Belief in the prophets/messengers of Allah.
Akhirah	The last days (and the afterlife).
Usul -ad-Din	The Five Roots of Shi'a Islam – the basis of their faith.
Free Will	The ability to choose to do good or evil actions.

1

How did the Sunni and Shi'a split occur?

Muhammad was the 'founder' of Islam, but Muslims believe that Islam started with Adam and Eve.
Allah's revelation to Muhammad was final. Muhammad was the 'Seal of the Prophets', and the last in a long line of prophets.
His death caused the early Muslims to 'split' between the Sunni and the Shi'a groups – the main question was "Who should lead the Muslim community?"
Both groups have similar but different core beliefs.

Sunni Muslims believed that the next Muslim leader should be chosen from the prophet's companions (the best person for the job). Abu Bakr, the prophet's companion, was chosen.

Shi'a Muslims believed that the next Muslim leader should have come from the Prophet's family: His cousin and son-in-law Ali bin Abu Talib.

The five roots in Shi'a Islam (Usul as-din)

These are five roots of faith which are the basis of Shi'a faith.
- Belief in the oneness of God (Tawhid)
- Belief in Allah's justice (Adalat)
- Beliefs in Allah's prophets from Adam to Muhammad (Nubuwwah)
- Belief in the successors of Muhammad (imamah) and belief that chosen descendants of the Prophet Muhammad were given special powers by Allah
- Belief in the Day of Judgement

The Usul as-din are important because:
- ✓ They are the basis of Shi'a Islam; it is from the 'roots' that the religion grows
- ✓ They are the five principles of faith and show a person what they must believe to be a Muslim
- ✓ They come from the teachings of the Qur'an and the Twelve Imams, which means they are of utmost importance to Shi'a Muslims.
- ✓ Shi'a Muslims believe that unless they understand and believe the five roots, they will not be able to perform the acts of worship necessary to live the Muslim life.

3

2

What are the Six Beliefs?

These are six principles that a Sunni Muslim must believe to be accepted as a Muslim.
- Belief in **Allah**
- Belief in His **angels**
- Belief in His **holy books**
- Belief in His **messengers**
- Belief in the **Last Day**

Based on the Qur'an. 'The men of faith. Each one believeth in God and His angels, His books and His apostles'

- Belief in **life after death** → Based on a Hadith of the Prophet Muhammad.

There is some disagreement about the sixth belief. Some believe that it refers to 'destiny', known as predestination (al-Qadr). Therefore some Muslims describe the six beliefs in three categories instead:
- **Tawhid** (the oneness of God)
- **Risalah** (the messengers of Allah)
- **Akhirah** (the last things)

The six beliefs are important because:

Believing in Tawhid shows that Muslims believe God is the only one, which means he must be the creator of everything, and so must be all powerful

Believing in angels shows that God can communicate with humans using His special beings

Believing in the holy books of God demonstrates that God has sent books to show humans what to believe and how to live

How these impact of Muslim communities today:
- ✓ The six beliefs mean that all people are created equal in the sight of God. No one is superior to others (except because of their religious devotion/piety) therefore people should not judge others.
- ✓ These beliefs mean that in Sunni Islam there are no priests or holy men with special authority, there can be no prophets after Muhammad so no human can have God's special authority.
- ✓ Salvation in Islam comes through believing in the six beliefs and living in the way set out by Islam.

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Year 10 RE LP2 Knowledge Organiser

4 The Nature of Allah

Muslims believe that God's nature is shown in the 99 names of God which can be found in the Qur'an.

Characteristic	This means..	This is important to Muslims because...
Oneness (Tawhid)	Allah must be the creator of everything since he is the only God, in control of everything and present in the universe He created.	- Muslims must try to preserve the world he created. - Muslims must only worship Allah (to worship others life Allah is shirk)
Omnipotence	Allah has complete powerful. He has created the universe and so must have complete power over it	- Muslims believe that Allah is in control of everything - God will bring the world to an end and has the power to do this
Beneficence and mercy	Beneficence is the idea that not only is Allah good, He is kind and loving to his creation and sent prophets with his word to show humans how to live. The Qur'an also teaches that Allah's mercy is such that if people fail to life the perfect Muslim life, he will forgive them.	- If God is merciful, Muslims should be too - On the Last Day Muslims will be able to ask for mercy if they have shown mercy to others
Justice (Adalat)	Justice means fairness and the maintenance of what is right. Allah' justice is shown in his holy law, Shari'ah and the way he deals with humans on the Last Day.	- God is just and will reward the good and punish the bad - Muslims must try to behave justly and preserve a just society and so work for equal rights and fair laws
Transcendence	Refers to the aspect of God's nature and power which is totally beyond the material world and so human experience and understanding.	- Allah is worthy of human worship as is greater than anything - Allah is not restricted by time, space or matter and so can be contacted by humans wherever they are
Immanence	Allah is close to humans and within the universe he has created.	- Allah is present for all religious activities of a Muslim - Despite God's greatness, Allah can be contacted by humans

7 Malaikah, Al Qadr and Akhirah

Muslims believe that Allah cannot communicate directly with humans. Allah created angels (malaikah) as immortal beings without free will.

- They are male and have wings.
- They obey all of Allah's commands so never commit sins
- Angels can have direct contact with Allah and pass his message to humans

Al Qadr - Muslims believe that when they die their body stays in the grave until the Last Day. The Qur'an teaches that Allah will bring this world to an end (Last Day). This will be after Isa (Jesus) has returned, the angel Israfil will sound the trumpet and the dead will be raised. We will stand before God on the plain of Arafat to be judged and either sent to heaven or hell. Muslims believe that on the final judgement, Allah will judge everyone on the basis of their beliefs and actions and reward or punish accordingly. People can only be punished for actions which they are responsible and could have done differently. This means that the concept of al-Qadr and Allah's final judgement contradict one another. This has led to two different Muslim explanations:

- ❖ Shi'a Muslims – Allah created humans with free will and his vicegerents responsible for the world. It is therefore up to humans to decide what happens and take responsibility for their actions and so pay the price on the Last Day.
- ❖ Sunni Muslims – Allah knows what people will do before they do it, but they do it of their own free will.

5 Risalah (prophethood)

Muslims believe that Allah created humans to look after the earth for him (Khalifah or vicegerents) and humans need prophets to know how to do this.

Prophets were all ordinary human beings; what made them different as that they were chosen to receive Allah's messages. There are many prophets but the main prophets in Islam are:

Adam	- Adam was the first prophet of Islam. Adam and his wife, Hawwa (Eva) at the forbidden fruit in the Garden of Eden. Allah placed Adam and Hawwa on earth to life and Allah forgave them. - Adam built a House of Allah (Ka'aba) in thanks for his forgiveness.
Ibrahim (Abraham)	- Abraham and his wife had no children in old age but then Allah granted him two sons, Isma'il and Ishaq. - Ibrahim had a vision that told him to sacrifice his son, as he was about to obey Allah's commands, Allah stopped him and rewarded them for their obedience. - Ibrahim and Isma'il restored the Ka'aba after it was destroyed by Noah's flood. - Ibrahim was given the 'a message for the nations' and all further prophets were descendants of him.
Isma'il (Ismael)	- Helped his father rebuild the Ka'aba and establish it as a place of pilgrimage - Regarded as the prophet to the Arabs
Musa (Moses)	- Musa was born a Jew but raised by Pharoah. He killed an Egyptian and fled but God called him back to free the Jews from slavery and leave Egypt for God's holy land. - Received the holy book of Tawrat (Torah) but the people distorted his message
Dawud (David)	- Dawud, the great king of Israel was given the holy book of Zabur (Psalms)
Isa (Jesus)	- Isa and Maryam (his mother) are major figures in the Qur'an - Surah 19 records a virgin birth and many miracles of Isa; including healing and raising the dead - Muslims believe that Allah took Isa from the cross so that Isa never died. - Isa was give the holy book Injil (Gospels) however the Qur'an makes it clear that Isa was an ordinary man, not the son of God
Muhammad	- Muhammad was called by Allah to bring his final message to humanity - His message must be followed and those who follow will be rewarded. - His life was a perfect example for people to follow - The message of the previous prophets was distorted so Allah sent Muhammed the holy book, the Qur'an which can never be distorted. - The seal of the prophets – final prophet with Allah's final message to humanity

The prophets teach Muslims:
- Islam is the original religion. Allah taught Islam to Adam and all the following prophets
- Each prophet was given Allah's true message and so Muslims should follow their teachings
- All prophets lived lives whose example could be followed, especially Muhammad. (**Sunnah** contains the prophet's life)

6

The **holy books** started with Adam. Unfortunately, humans distorted God's words and so God had to send other messengers. Muslims believe that God sent his word to:

- Ibrahim (Abraham) = Sahifa Ibrahim (Scrolls of Abraham)
- Musa (Moses) = Tawrat (Torah)
- Dawud (David) = Zabur (Psalms)
- Isa (Jesus) = Injil (Gospels)
- Muslims believe that God decided that his word needed revealing in a new way because:

- He had sent it before and each time humans distorted it
- Humans had ignored or disobeyed His message

This meant that the Qur'an need to be sent to a prophet who could not read or recite but recite God's words; but highly intelligent. Muhammad was that chosen prophet. He ensured his followers memorised the revelations and later had secretaries to write them down. He checked them for accuracy and his wife Hafsa kept them for him.

When Muhammad died, Abu Bak'r, made the authorised version. All other versions were destroyed by Uthman who organised the Surah's by length and created the official version. This means that the Qur'an used today is the exact words of God revealed to Muhammad. 'An earthly copy of a heavenly original' as all copies of the Qur'an have the same Surahs, words and letters.

The Qur'an is important to Muslims today because:

- ➢ Everything in the Qur'an must be true because God said it and so there is no greater authority
- ➢ It tells Muslims what to believe – Allah, Angels, Prophets, Holy Books, Judgement Day and Akhirah
- ➢ Sets out how Muslims should live – 5 pillars, halal/haram,

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Year 10 Science LP2 Knowledge Organiser

In this learning program, students will develop their understanding of chemistry, starting with the structure and behavior of atoms and moving through chemical reactions, bonding, and the periodic table. They will also explore techniques for separating mixtures and deepen their knowledge of states of matter and molecular structures, preparing them for assessments that integrate these concepts.

Key Vocabulary

Atom	**An atom is the smallest part of an element.** It has a nucleus with protons and neutrons, and electrons around it.
Isotope	Isotopes are atoms of the same element with different numbers of neutrons.
Reactivity	Reactivity is how easily a substance reacts with others.
Chromatography	Chromatography is a method used to separate mixtures.
Bonding	Bonding is how atoms join to form substances.
Covenant	**Covalent bonding is when atoms share electrons to form molecules.** It usually happens between non-metal atoms
Concentration	Concentration is how much of a substance is in a certain volume of solution.
Metallic	Concentration is how much of a substance is in a certain volume of solution.
Proton	**A proton is a tiny particle found in the nucleus of an atom.** It has a **positive charge**
Neutron	**A neutron is a particle found in the nucleus of an atom.** It has **no charge** and helps add mass and stability to the atom.

1

Elements and compounds

Elements are substances made of one type of atom. Each atom of an element will have the same number of protons.

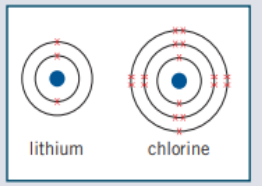
Compounds are made of different types of atoms chemically bonded together. The atoms in a compound have different numbers of protons.

Drawing atoms

Electrons in an atom are placed in fixed shells. You can put

- up to two electrons in the first shell
- eight electrons each in the second and third shells.

You must fill up a shell before moving on to the next one.



Mixtures

- A mixture consists of two or more elements or compounds that are not chemically combined together.
- The substances in a mixture can be separated using physical processes.
- These processes do not use chemical reactions.

LP2.2

2

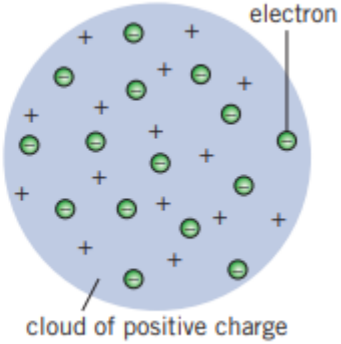
Dalton's model

John Dalton thought of the **atom** as a solid sphere that could not be divided into smaller parts. His model did not include **protons**, **neutrons**, or **electrons**.

The plum pudding model

Scientists' experiments resulted in the discovery of sub-atomic charged particles. The first to be discovered were electrons – tiny, negatively charged particles.

The discovery of electrons led to the plum pudding model of the atom – a cloud of positive charge, with negative electrons embedded in it. Protons and neutrons had not yet been discovered.



LP2.3

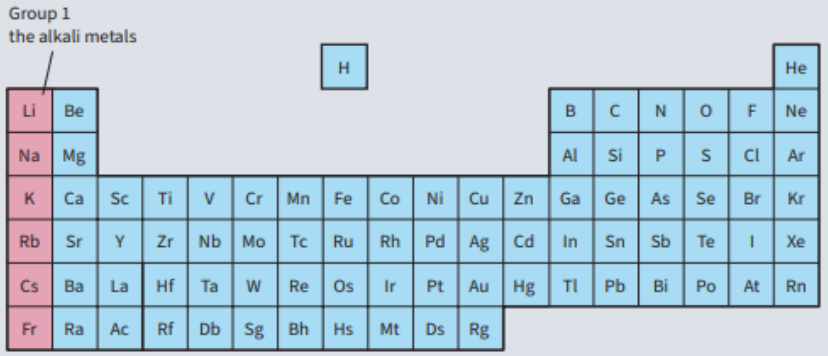
3

Group 1 elements

Group 1 elements react with oxygen, chlorine, and water, for example:

lithium + *oxygen* → lithium *oxide*
lithium + *chlorine* → lithium *chloride*
lithium + *water* → lithium *hydroxide* + *hydrogen*

Group 1 elements are called **alkali metals** because they react with water to form an alkali (a solution of their metal hydroxide).



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Year 10 Science LP2 Knowledge Organiser

LP2.4

4

Group 7 elements

Group 7 elements are called the **halogens**. They are non-metals that exist as molecules made up of pairs of atoms.

Name	Formula	State at room temperature	Melting point and boiling point	Reactivity
fluorine	F_2	gas	increases down the group	decreases down the group
chlorine	Cl_2	gas		
bromine	Br_2	liquid		
iodine	I_2	solid		

Group 7 reactivity

Reactivity decreases down Group 7 because as you move down the group:

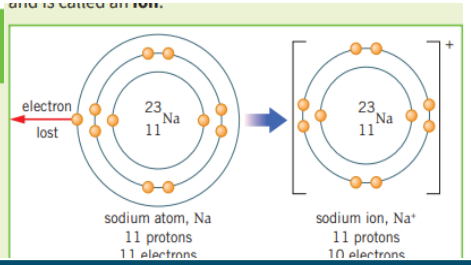
- the atoms increase in size
- the outer shell is further away from the nucleus, and there are more shells between the nucleus and the outer shell
- the electrostatic attraction from the nucleus to the outer shell is weaker so it is harder to gain one electron to fill the outer shell.

LP2.5

5

Ions

Atoms can gain or lose electrons to give them a full outer shell. The number of protons is then different from the number of electrons. The resulting particle has a charge and is called an **ion**.



When metal atoms react with non-metal atoms they **transfer** electrons to the non-metal atom.

Metal atoms lose electrons to become positive ions. Non-metal atoms gain electrons to become negative ions.

LP2.6

6

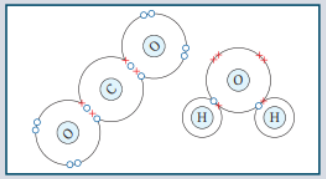
Covalent bonding

Atoms can share or transfer electrons to form strong chemical bonds.

A **covalent bond** is when electrons are *shared* between **non-metal** atoms.

The number of electrons shared depends on how many extra electrons an atom needs to make a full outer shell.

If you include electrons that are shared between atoms, each atom has a full outer shell.
Single bond = each atom shares one pair of electrons.
Double bond = each atom shares two pairs of electrons.



Covalent structures

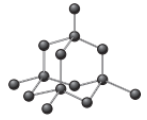
There are three main types of covalent structure:

Structure and bonding

Giant covalent

Many billions of atoms, each one with a strong covalent bond to a number of others.

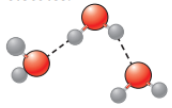
An example of a giant covalent structure is diamond.



Small molecules

Each molecule contains only a few atoms with strong covalent bonds between these atoms. Different molecules are held together by weak **intermolecular forces**.

For example, water is made of small molecules.



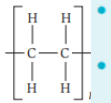
Large molecules

Many repeating units joined by covalent bonds to form a chain.

The small section is bonded to many identical sections to the left and right. The 'n' represents a large number.

Separate chains are held together by intermolecular forces that are stronger than in small molecules.

Polymers are examples of long molecules.



The atoms that make up metals form layers. The electrons in the outer shells of the atoms are **delocalised** – this means they are free to move through the whole structure.

The positive metal ions are then attracted to these delocalised electrons by the electrostatic force of attraction.

Some important properties of metals are:

- pure metals are **malleable** because the layers can slide over each other
- they are good **conductors** of electricity and of thermal energy because delocalised electrons are free to move through the whole structure
- they have high melting and boiling points because the electrostatic force of attraction between metal ions and delocalised electrons is strong so lots of energy is needed to break it.

LP2.7

7

Formula mass

Every substance has a **formula mass**, M_r.

formula mass M_r = sum (relative atomic mass of all the atoms in the formula)

Avogadro's constant (HT only)

One mole of a substance contains 6.02×10^{23} atoms, ions, or molecules. This is **Avogadro's constant**.

One mole of a substance has the same mass as the M_r of the substance. For example, the M_r (H_2O) = 18, so 18 g of water molecules contains 6.02×10^{23} molecules, and is called one mole of water.

You can write this as: moles = $\frac{\text{mass}}{M_r}$

Concentration

Concentration is the amount of solute in a volume of solvent.

The unit of concentration is g/dm³.
Concentration can be calculated using:

$$\text{concentration } (g/dm^3) = \frac{\text{mass } (g)}{\text{volume } (dm^3)}$$

Sometimes volume is measured in cm³:

$$\text{volume } (dm^3) = \frac{\text{volume } (cm^3)}{1000}$$

- lots of solute in little solution = high concentration
- little solute in lots of solution = low concentration

Birches Head Academy

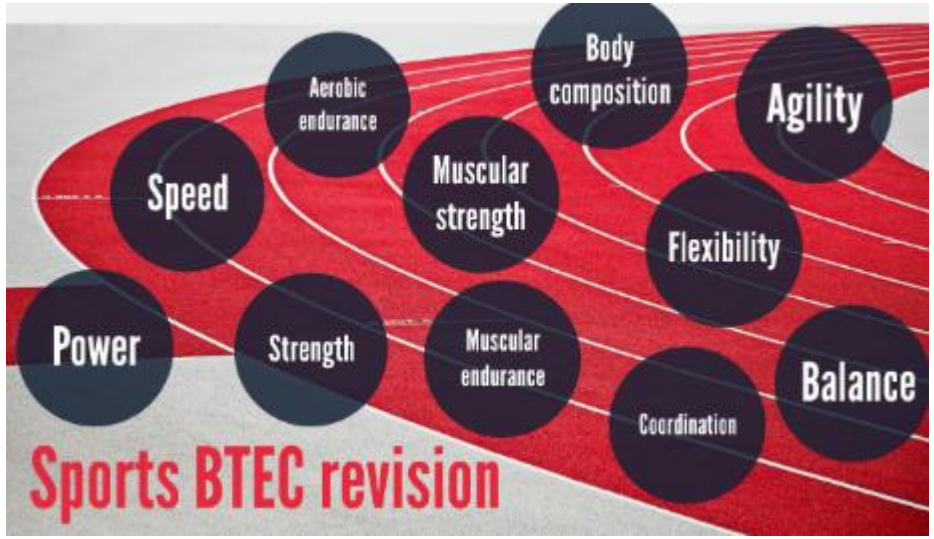
Y10 LP2 BTEC Sport Knowledge Organiser

This Learning Programme you will gain knowledge of how the body works in sport. Practical skills in playing, improving, and leading sports. Understanding of fitness and training techniques and development of communication, leadership, and analysis skills

Key Skills:
In BTEC Sport, you develop practical skills in sports performance, fitness training, and teamwork. You also gain analytical skills by evaluating performance and designing effective training programs. The course helps build communication, leadership, and problem-solving abilities useful both in sport and future careers.

Key Vocabulary	
Heart Rate	The number fo times your heart beats per minute.
Maximum Heart Rate	The highest number of times your heart can safely beat per minute.
Intensity	How hard your body is working during physical activity.
Time	The duration spent performing a physical activity to exercise
Nutrition	The intake of food and nutrients to support athletic performance, recovery and overall health
Components of fitness	Aerobic endurance, muscular endurance, muscular strength, flexibility, body composition. Power, agility, reaction time, balance, coordination.

Methods of Training
Interval Training – athletes training with periods of work follow by periods of rest
Continuous Training – training for a specific period of time with no rest
Fartlek Training – a combination of slow and fast running over a variety of distances and terrains
CrossFit Training - a mixture of training
Circuit Training – a number of exercises, set out at stations to avoid exercising the same muscle group consecutively.
Weight Training – using progressive resistance, in the form of actual weights ,in terms of number of times the eight is lifted.



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Y10 LP2 BTEC Sport Knowledge Organiser

LP2.1

Pupils will evaluate increasing participation in regular sport or physical activity for different types of sports participants

LP2.2

Pupils will begin to look at equipment and technology required for participants to use when taking part in sport and physical activity.

LP2.3

Pupils will begin to participate confidently in training sessions and prepare participants to take part in sports and physical activity.

LP2.4

Pupils will begin to explain the technology advancements in the chosen sport for the brief. Pupils will begin to look at equipment needed for this sport.

LP2.5

Pupils will be able to explain the advantages and disadvantages of equipment within sport and the roles and responsibilities of officials.

LP2.6

Pupils will confidently officiate in Sport and be able to participate in sport and understand the roles and responsibilities of officials. Pupils will give lead roles on officiating and try to analyse and evaluate their own performances.

LP2.7

Pupils will know how to improve participants sporting skills (written) and demonstrate ways to improve participants sporting technique.

Birches Head Academy

Y10 LP2 Physical Education Knowledge Organiser - Basketball

This Learning Programme you will create new defensive and attacking strategies to improve team performance. Pupils should be able to recognise the importance of responding to changing situations within the game in attack and defence.

Key Vocabulary	
Tactical Skills	The ability to make smart decisions and apply strategies during a game.
Attack	The actions taken by a player or team to try to score points or goals.
Defence	The actions and strategies used by a player or team to prevent the opponent from scoring.
Free space	An open areas on the filed, court or pitch where no players are present, allowing an athlete to move, pass or shoot.
Losing an opponent	Successfully moving away from a defender to create space or gain advantage.
Coordination	The ability to use different parts of the body smoothly and efficiently together.
Agility	The ability to move quickly and easily while changing direction
Reaction Time	The speed at which an athlete responds to a stimulus
Power	The ability to perform a strong and explosive movement quickly.
Stamina	The ability to sustain physical and mental effort over a long period of time.

Key Skills

Passing –Various passes are used within a game; chest, bounce, overhead and shoulder with control and accuracy.

Catching –A skill used to receive the ball, enabling the team to keep possession of the ball. Catching is consistent and accurate.

Behind the back dribble -Involves the ball handler bouncing the ball off of the floor behind his feet and catching it with the other hand**.**

Dodging – Advanced techniques to outwit opponents. A change of speed and direction in order to get free into space to receive the ball .

Shooting –. Fluency, control and accuracy when shooting. A skill used by any player within the game to score a basket.

A player shall not remain in the opponents' key for more than three consecutive seconds while their team is in control the ball.

The referee fingers to indicate how many points have been scored (1, 2 or 3).

The referee shall be judge of the ball and shall decide when the ball is in play, in bounds, to which side it belongs, and shall keep the time. He shall decide when a goal has been made and keep account of the goals with any other duties that are usually performed by a referee.

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Y10 LP2 Physical Education Knowledge Organiser - Netball

LP2.1

Students will know how to compare and contrast the different attacking principles through the use of width and speed, students will demonstrate a variety of passes with good accuracy, control and fluency.

LP2.2

Students will know how to compare defender positions in order to outwitting opponents using advanced skills. Students will know how to develop team tactics of attack, including use of space and playing forward.

LP2.3

Students will know how to demonstrate good ball control and maintain possession in competitive situation. Students will explain the benefits of strategic and tactical approaches to outwit opponents.

LP2.4

Students will know how to replicate numerous defence skills including zonal and man to man marking, students will understand the benefits of strategic and tactical approaches to outwit opponents

LP2.5

Students will know how to understand the positions and strategic formation used to prevent attack from opposition and develop strategic and tactical plays in a competitive situation.

LP2.6

Students will know how to demonstrate outstandingg knowledge and understanding of the rules and regulations of a team sport and demonstrate skills and tactical decision making in a competitive game.

LP2.7

Students will know how to develop set plays within a game situation to defend and attack effectively, students will know how to evaluate performance.

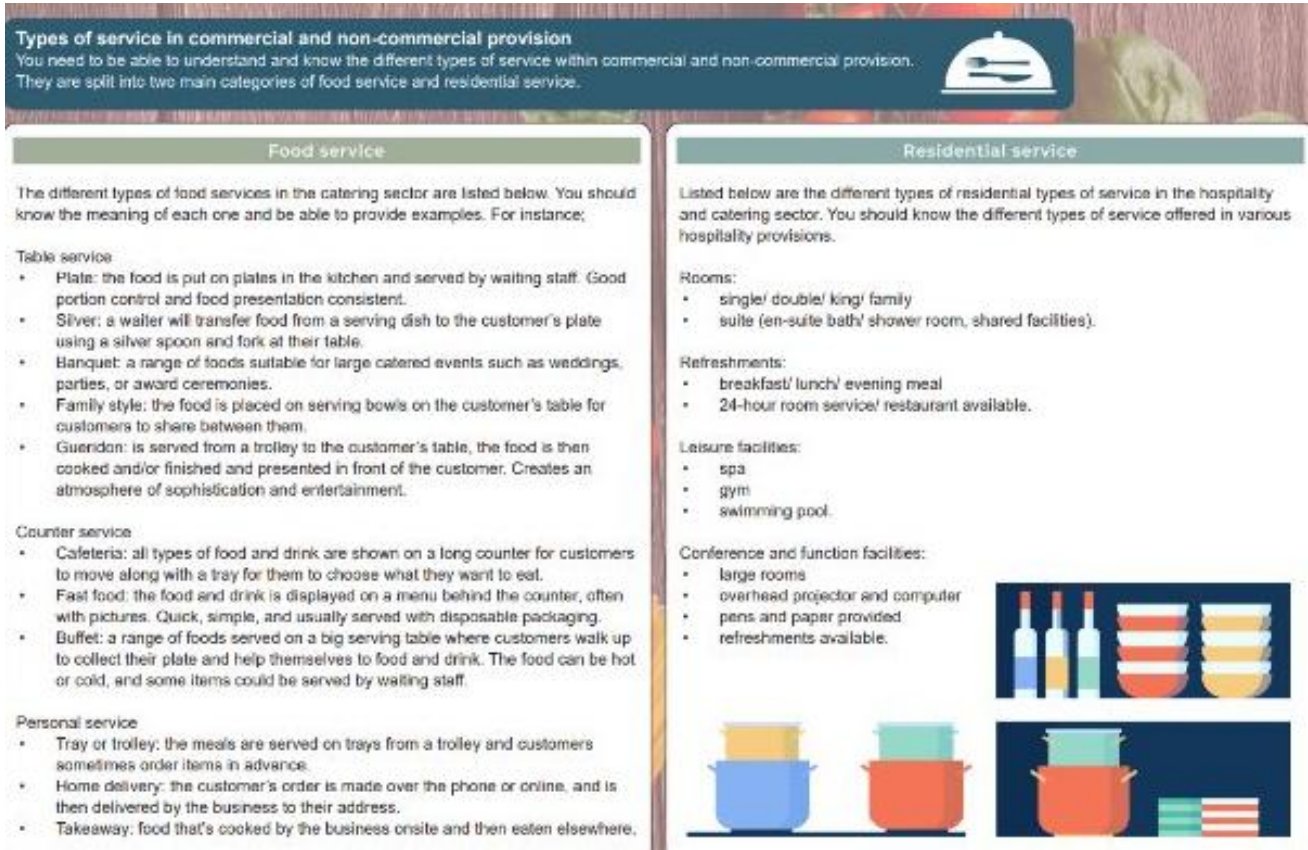
LP2: Y10 Hospitality & Catering

Birches Head Academy

This Learning Programme you will be learning about job roles and responsibilities in the hospitality & catering industry

Key Vocabulary	Definition:
Personal Attribute	Qualities or characteristics that influence how someone works, such as creativity, attention to detail, or reliability.
Job Role	The specific position or function someone holds within a photography or creative team, e.g., photographer, editor, assistant.
Front of House	Roles that involve direct interaction with clients or the public, such as reception, customer service, or gallery hosting.
Back of House	Roles that support production behind the scenes, like editing, equipment setup, or file management.
Workflow	The sequence of steps or processes followed to complete a photography project, from planning to final output.
Responsibility	The tasks or duties assigned to a person, reflecting their role and accountability within the team or project.

1. Job roles and their responsibilities
2. Front of house
3. Back of house
4. Services on offer
5. Different types of service
6. Which service belongs in which establishment
7. Job titles and their responsibilities



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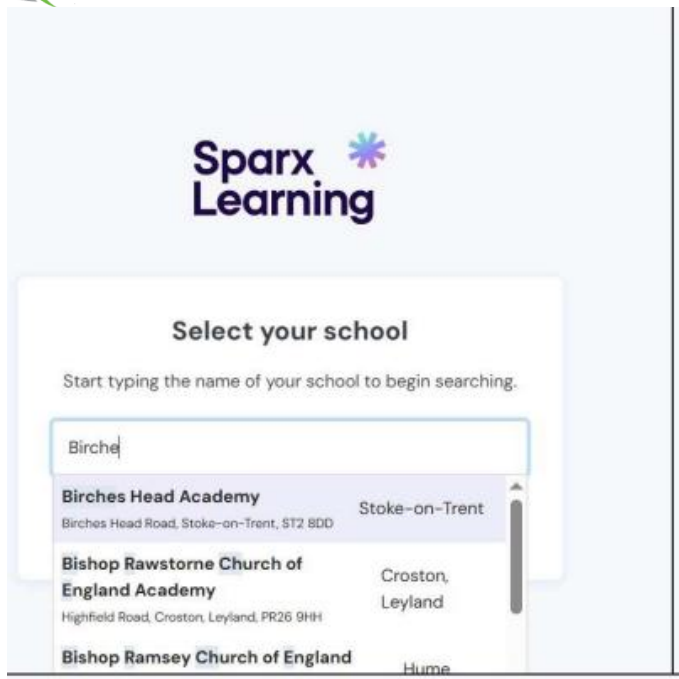
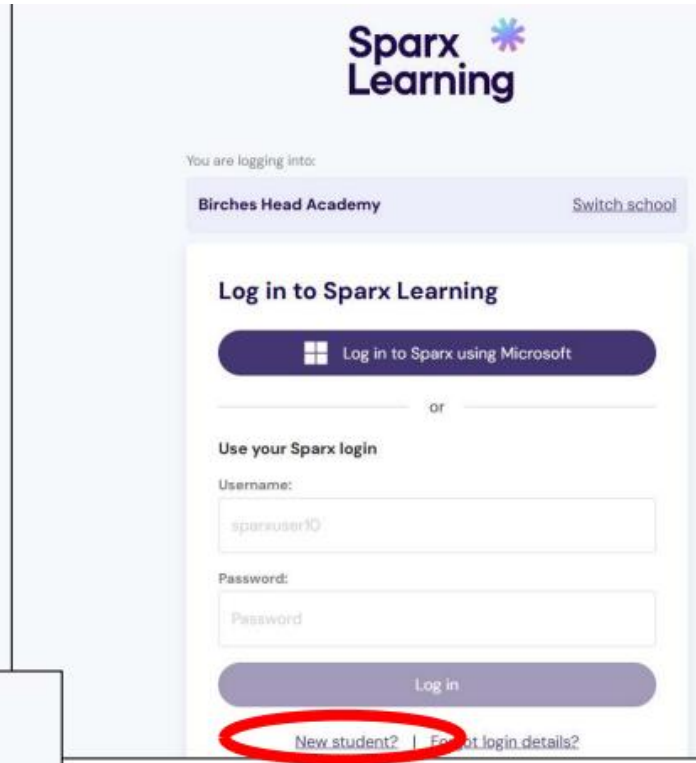
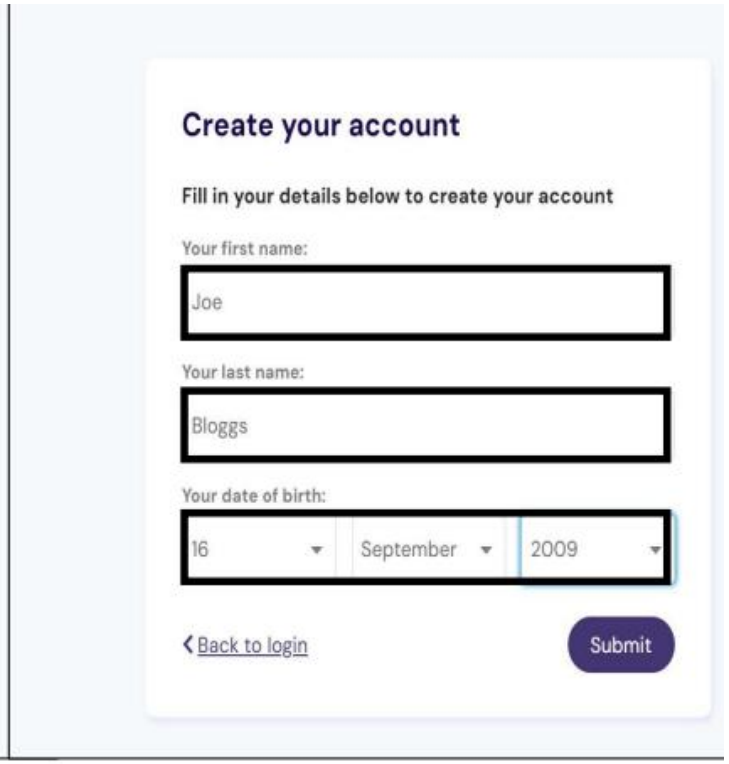
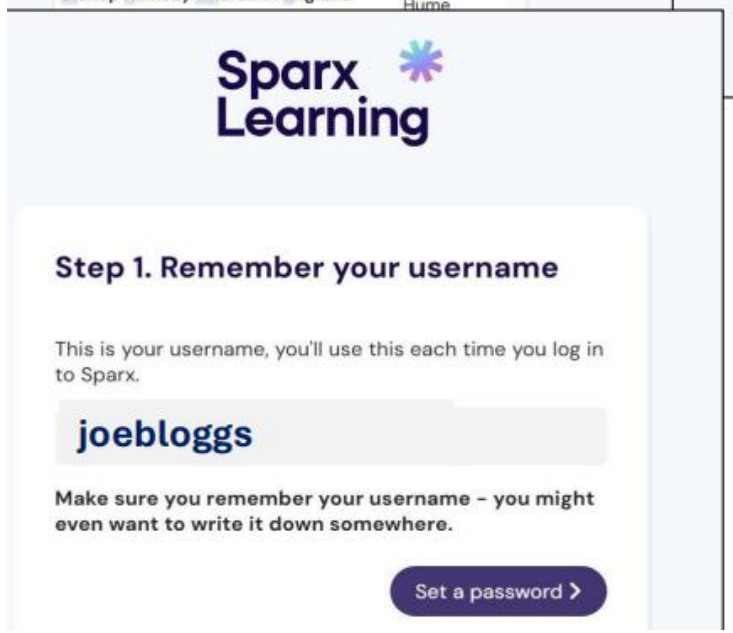
SPARX MATHS INSTRUCTIONS









1. Go to maths.sparx-learning.com/student
2. Select your school and click 'Continue'
3. Click 'New user' underneath the login fields
4. Follow the steps to create your account:
5. Enter your name and date of birth
6. Note down your username
7. Create a password (minimum 6 characters)