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:

Contents page

Instructions

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

The timetable on the page 5 tells you which subjects you should be studying on which days (it doesn't matter if you have that subject on that day or not, you should follow the timetable).

You are to use your exercise book to show the work you have done. Each evening you should start a new page and put the date clearly at the top.

You need to bring your KO and exercise book with you EVERYDAY to the academy.

Your parents should tick off your homework every evening using the grid in your KO on page 4.

Your KO and exercise book will be checked regularly in form time, failure to show homework for ALL FIVE days of the week will result in an after school detention that day.

You will also be tested in your lessons on knowledge from the organisers.
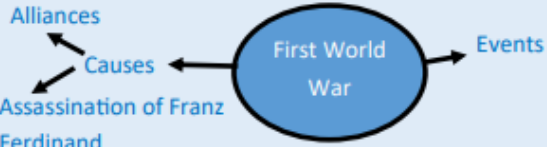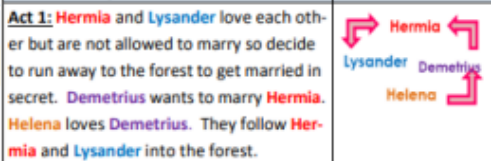
Self-testing

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

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.

Homework diary

Week	Date	Subject	Task
LP2.1	Monday 21st October	Maths	Make a revision card about solving equations.
	Tuesday 22nd October	English	Create a revision card for 3 historical features influencing Dickens to write A Christmas Carol.
	Wednesday 23rd October	Science	Create a mind map to show all the parts of the Electromagnetic Spectrum and their uses and dangers.
	Thursday 24th October	Option W	Complete homework task 1 from the option block homework tasks
	Friday 25th October	Option X	Complete homework task 1 from the option block homework tasks

Week	Date	Subject	Task
LP2.2	Monday 4th November	Option Y	Complete homework task 1 from the option block homework tasks
	Tuesday 5th November	Option Z	Complete homework task 1 from the option block homework tasks
	Wednesday 6th November	Maths	Make a revision card about representing inequalities on a numberline.
	Thursday 7th November	English	Create a timeline for Stave 1.
	Friday 8th November	Science	Write a paragraph comparing the similarities and differences between aerobic and anerobic respiration.

Week	Date	Subject	Task
Review learning week	Monday 11th November Tuesday 12th November Wednesday 13th November Thursday 14th November Friday 15th November	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	Date	Subject	Task
LP2.3	Monday 18th November	Option W	Complete homework task 2 from the option block homework tasks
	Tuesday 19th November	Option X	Complete homework task 2 from the option block homework tasks
	Wednesday 20th November	Option Y	Complete homework task 2 from the option block homework tasks
	Thursday 21st November	Option Z	Complete homework task 2 from the option block homework tasks
	Friday 22nd November	Maths	Create a mind map on y = mx + c.

Week	Date	Subject	Task
LP2.4	Monday 25th November	English	Create a timeline for Stave 2.
	Tuesday 26th November	Science	Draw a flow chart to show the process of breathing and gas exchange.
	Wednesday 27th November	Option W	Complete homework task 3 from the option block homework tasks
	Thursday 28th November	Option X	Complete homework task 3 from the option block homework tasks
	Friday 29th November	Option Y	Complete homework task 3 from the option block homework tasks

Week	Date	Subject	Task
LP2.5	Monday 2nd December	Option Z	Complete homework task 3 from the option block homework tasks
	Tuesday 3rd December	Maths	Write a simultaneous equations question that links to real life.
	Wednesday 4th December	English	Bullet Point examples of light imagery in the text so far.
	Thursday 5th December	Science	Describe the method and positive result for each individual food test.
	Friday 6th December	Option W	Complete homework task 4 from the option block homework tasks

Week	Date	Subject	Task
LP2.6	Monday 9th December	Option X	Complete homework task 4 from the option block homework tasks
	Tuesday 10th December	Option Y	Complete homework task 4 from the option block homework tasks
	Wednesday 11th December	Option Z	Complete homework task 4 from the option block homework tasks
	Thursday 12th December	Maths	Create a set of instructions on how to solve simultaneous equations.
	Friday 13th December	English	Create a mind map of the importance of Christmas.

Week	Date	Subject	Task
LP2.7	Monday 16th December	Science	Write a sentence about each hormone in the human body.
	Tuesday 17th December	Option W	Complete homework task 5 from the option block homework tasks
	Wednesday 18th December	Option X	Complete homework task 5 from the option block homework tasks
	Thursday 19th December	Option Y	Complete homework task 5 from the option block homework tasks
	Friday 20th December	Option Z	Complete homework task 5 from the option block homework tasks

Option Block Homework Tasks

Subject	Homework
3D Design	Explain how you have used 3 of the card techniques in your work.
	Describe how you can connect cardboard using the relief techniques.
	Choose a street artist to do a fact file on.
	Draw a plan for your final outcome.
	Write about how your work is incorporating street art.
Art	Define what a natural form is and make a list of 10 natural forms you could draw in your project.
	Draw a 3x3 box. In each box, develop a 'natural; texture, using your pen or a pencil.
	List 5 key points about your studied artists work. Add these into your sketchbook creatively.
	Define the key elements, LINE, COLOUR, TEXTURE
	Write a paragraph about hoe you have used the formal elements in your work so far. Include this into your sketchbook creatively.
Business	Look at the key vocabulary on page one and learn their spelling and definition. Then use look, cover, write, check to test yourself.
	Look at the key vocabulary on page two and learn their spelling and definition. Then use look, cover, write, check to test yourself.
	Create flashcards on 5 key terms and definitions you are struggling to remember.
	Choose an example of where you have seen technology used in a store and explain what it was used for/what it did
	Give 3 examples of where you have seen visual merchandising installation and explain what they looked like e.g. Christmas display at Asda and it had lots of different advent calendars on and pictures of Christmas trees and Santa
Drama	Read the definition of skills and responsibilities in the key vocabulary. List the key skills and responsibilities required of a director.
	Read the definition of skills and responsibilities in the key vocabulary. List the key skills and responsibilities required of an actor.
	Read the definition of skills and responsibilities in the key vocabulary. List the key skills and responsibilities required of a costume designer.
	Look at the first 5 key words from the key vocabulary for Learning Aim A. Learn their spelling and definition. Then use look, cover, write, check to test yourself.
	Look at the remaining 6 key words from the key vocabulary for Learning Aim A. Learn their spelling and definition. Then use look, cover, write, check to test yourself.
Geography	List 5 points describing how Stoke on Trent is important.
	Describe two tourist attractions in Stoke on Trent.

	Describe and explain what has happened to the UK's employment structure over time.
	Describe the challenges and opportunities that migration can bring.
	Define 'urban fringe' and suggest what the land there may be used for.
Health and Social Care	Using case study one – describe the negative effects changing school could have on Freddie's social development.
	Using case study one – describe how asthma could impact Freddie's physical development.
	Using case study two – describe how having English as an additional language can impact Sophia's intellectual development.
	Using case study two – describe how Sophia's life stage develops socially.
	Using case study three – explain how loss can impact her emotionally and physically.
History	List and add a description for the 7 key themes in our Health topic.
	Create a mind map for treatments of disease in the Industrial period.
	List similarities and differences between surgery before and after antiseptic surgery.
	Write a PEE paragraph explaining the importance Public Health in the Industrial period.
	Create a fact file for modern surgery.
ICT	Create flashcards for different Excel Formulas.
	Design a main menu to be used on Excel for a local supermarket called 'Fresh Foods'. Annotate this design with any buttons or form controls you would use, as well as what macros you would use and what they would do.
	Research how businesses use spreadsheets.
	List as many uses as possible spreadsheets could be used for in everyday life. How do spreadsheets improve peoples lives?
	Create a cheatsheet for excel formulas. What can they do and how can they be used?
Spanish	Log onto your personal **Languagenut** account and complete the appropriate homework task.
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Music	Create a flashcard about compositional techniques using your knowledge organiser.
	Choose a piece of music, listen to it and pick out sonic and compositional features – describe their use (you can use the internet to help if you get stuck!)
	Create a flashcard about dynamics.
	In your opinion – are there any sonic or compositional features that are more important than others in the creation of music? Discuss this in a paragraph.
	Create a revision card about sonic and compositional features giving an example, for each, of how we might describe them in coursework.
Btec Sport	Use the 'Look, cover, write, check' method to list the key training principles/key terms of your sport or activity.
	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)
	Practice some of the key techniques that are used within your sport/activity at home.
	Use a method of your choice to revise the rules for your sport/activity.

Photography	Download Onedrive on your phone and log in with your academy username and password.
	Write descriptions of the compositional elements
	Write a list of everything you need to consider for a photoshoot.
	Describe the key words, ISO settings and View Point
	Draw a photoshoot plan considering 5 of the compositional elements.
Religious Education	Mind Map key ideas surrounding marriage for Christians. Include: what is its purpose, why it is important and key religious teachings.
	Bullet point the key beliefs about sexual relationships.
	Draw an image to represent the different family types.
	Explain the importance of family for Christians.
	Create flashcards for the importance of the local parish church.
Hospitality and Catering	Using your knowledge organiser identify the main nutrients in your menu.
	Describe how the cooking method affects vegetables when boiling.
	Explore the process' that you will use for production.
	Identify why the body needs fats.
	Create a mind map of

3D Design

Inspiration

KS4 Progression

Cardboard Relief Techniques

- Corrugation (Exposed)
- Curve/Curl
- Cut Shapes
- Fold/Bend
- Fringe
- Hole (Cut or Punched)
- Loop
- Quilling
- Roll
- Score & Bend
- Slit
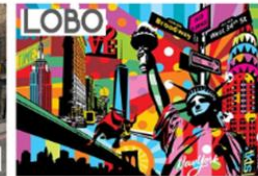- Stack/Layer
- Rip/Tear
- Table-Top
- Wedge

STREET ART

JEROME CLEM
Jerome Clem is a French artist.
He decided to revive his childhood by painting characters from his youth.
He draws his inspiration from Marvel's superheroes and Walt Disney or Looney Tunes characters, which he mixes with street art, graffiti or ads from the same period.

BEN EINE
Ben Eine is one of the most successful street artists in the world and is regarded as a pioneer in the exploration of graffiti letterforms. His typographic style is distinctive and looks like a circus font.

LOBO
LOBO is a Brazilian street artist. The strong colours and bold iconic landmarks are features of his art. LOBO aims to show people's stories, illustrated using icons of the main cities of the world.

www.graffiticreator.net

KEITH HARING
Keith Haring was an instant star of the 1980's art world.
His style is highly recognizable. It consists mostly of simple figures surrounded by rhythmic lines that make them appear to vibrate or move.

www.fontspace.com

TEXTILES
You can find fonts similar to those used by Ben Eine on fontspace. The font above is called 'Cast Iron'.

genius

TYPOGRAPHY: Making the text readable. When selecting a typeface for a children's text, look for a warm, friendly design with simple shapes.

SILHOUETTE: the dark shape and outline of someone or something against a brighter background.

BANKSY
Banksy is a street artist from Bristol, UK. He makes satirical, humorous art using stencils and spray paint.

COMPOSITION: refers to the arrangement of elements within a work of art.

OVERLAP: extend over so as to cover partly.

STENCIL: a thin sheet of card, plastic, or metal with a pattern or letters cut out of it. Ink or paint is applied through the holes to produce an image.

AO1 EXPLORE ANNOTATE
BEGIN TO LINK A THEME IMAGES
TO YOUR CHOSEN ARTISTS WORK
WRITTEN ANALYSIS ARTISTS
LINK ARTISTS WORK TO
IDEAS AND ARTWORK RESEARCH

AO2 EXPERIMENT
LINKING TECHNIQUES WITH A
TO ARTISTS RANGE
AND THEMES OF MEDIA
TEXTILES WATERCOLOUR
CLAY MIXED MEDIA PEN AND INK
PHOTOGRAPHS OIL PASTEL

AO3 IDEAS
IDEAS LINKING TO OBSERVATIONAL
ARTISTS WORK DRAWINGS
ALL ARTWORK PLANS
LINKING TOGETHER
PLANS, DESIGNS
IN A RANGE OF EXPLANATIONS
DIFFERENT MEDIA ANNOTATION

AO4 FINAL
MEANINGFUL PIECE OF WORK
INFORMED SHOW UNDERSTANDING
RESPONSE LINKS
LINK BETWEEN TO ARTISTS WORK
VISUALS AND ARTISTS
PRESENTATION RELEVANT

Art

Recall

SHAPE #1   DUPLICATE   CONNECT   SHADE

Geometry			
diamond	octagon		right triangle
arc	equilateral triangle	parallel lines	side
acute angle	hexagon	pentagon	sphere
brackets [ ]	horizontal line	perpendicular lines	square
circle	intersecting lines	quadrilateral	star
cone	isosceles triangle	rectangular prism	trapezoid
cube	moon	rhombus	vertices
cylinder	obtuse angle	right angle	vertical line

Inspiration

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KS4 Progression

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TO YOUR CHOSEN ARTISTS WORK
WRITTEN ANALYSIS
LINK ARTISTS WORK TO
IDEAS AND ARTWORK
IMAGES ARTISTS RESEARCH

AO2 EXPERIMENT WITH A RANGE OF MEDIA
LINKING TECHNIQUES
TO ARTISTS
AND THEMES
TEXTILES
CLAY MIXED MEDIA PHOTOGRAPHS OIL PASTEL
WATERCOLOUR PEN AND INK

AO3 IDEAS
IDEAS LINKING TO ARTISTS WORK
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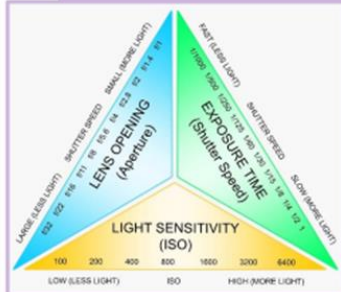DIFFERENT MEDIA
OBSERVATIONAL DRAWINGS PLANS EXPLANATIONS ANNOTATION

AO4 FINAL PIECE OF WORK
MEANINGFUL INFORMED RESPONSE
LINK BETWEEN
VISUALS AND ARTISTS
PRESENTATION
SHOW UNDERSTANDING
LINKS TO ARTISTS WORK
RELEVANT

FORMAL ELEMENTS
COLOUR LINE SHAPE FORM
VALUE TEXTURE PATTERN SPACE
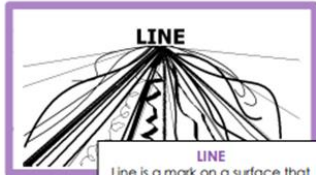
LINE
Line is a mark on a surface that defines a shape or an outline. It can create a texture. Types of line include vertical, horizontal, diagonal, contour, accurate, expressive, continuous and

SHAPE AND FORM
Shape and form define objects in a space. Shape is 2-dimensional, height and width, and defined by lines. Forms are 3 dimensional shapes which have volume. Forms and shape define objects in space.

SHAPE   FORM

Colour Wheel

RED (PRIMARY)
RED-ORANGE (TERTIARY)
ORANGE (SECONDARY)
YELLOW-ORANGE (TERTIARY)
YELLOW (PRIMARY)
YELLOW-GREEN (TERTIARY)
GREEN (SECONDARY)
BLUE-GREEN (TERTIARY)
BLUE (PRIMARY)
BLUE-PURPLE (TERTIARY)
PURPLE (SECONDARY)
RED-PURPLE (TERTIARY)

Complementary Colours (Opposite each other)

Analogous Colours (Next to each other)

COLOUR
Colour is organised by the Colour Wheel and is made up of 3 properties; hue, value and intensity. Hue is the name of the colour itself. Value is hue's lightness (white added) or darkness (black added). Intensity is brightness of the hue.

TEXTURE
Texture describes the feel of a surface. This can either be how it feels or appears.

PATTERN
Pattern is a design that is created by repeating lines, shapes, tones or colours. It has structure and should not be confused with texture.

VALUE
Value (or tone) is the lightness or darkness of a colour and can be used to create the illusion of form, depth and distance. The greater the contrast between light and dark the more pronounced a 3D form will look. The parts of the object on which the light is strongest are called highlights and the darker areas are called shadows.

SPACE
Space refers to how the area within artwork is used and is also described as composition. Depth can be implied through perspective and overlapping.

ANNOTATION
Annotations are written explanations or critical comments added to your artwork that record and communicate your thoughts and ideas. It is important that you annotate you work as it progresses; explaining, describing and evaluating.

KEY VOCABULARY DESCRIBING THE FORMAL ELEMENTS

Shape, Form, Space	Tone	Texture and Pattern	Line	Colour
Closed	Value	Repeated	Controlled	Hue
Open	Dark/Medium/Light	Structured	Continuous	Tint
Distorted	Faded	Geometric/Organic	Bold	Bright
Flat	Harsh	Uniform	Sketched	Pastel
Organic	Contrasting	Random	Free	Primary/Secondary/Tertiary
Geometric	Intense	Symmetrical	Rough	Harmonious
Negative/Positive	Sombre	Irregular	Light	Complementary
Perspective	Faint	Rough/Smooth	Flowing	Monochrome
Scale	Graduated	Broken	Thick/Thin	Neutral
Depth	Dramatic	Fine	Broken	Subtle
Composition	Shadow	Flat	Overlapping	Vivid
2D/3D	Highlight	Uneven	Angular	Cool/Warm
Volume	Grey	Soft		Contrasting

What to write and how to start

Describe the context of the piece.
What is it? *(What is it you have drawn?)*
What are you working from? *(Primary or secondary source, and explain)*
What is the purpose? *(Observation, development, design idea?)*

- This piece is part of my …
- I have been working from …
- My subject matter has been… this is because…

Write about materials, techniques and processes used.
What materials have you used and how have you applied them?
Explain techniques or processes used.
What formal skills have you demonstrated?

- To create my artwork, I used…
- I explored using…
- I created this piece because …
- I am pleased with this study because …
- I could further develop my work by…

Explain your artist research and its context.
Which artist has influenced your work and why is their artwork relevant?
How would you describe their artwork? *(What art movement, when produced, how it's created)*
What influenced their artwork? How? *(Other artists, themes, events in their life, etc.)*
What formal elements, materials and techniques have you used in your work and how do these link to the artist's style?
How have you used the artist style in your own way?

- I have chosen to look at artwork by the artist … They link to my theme because…
- Their artwork was created during the … movement in … and focuses on…
- Influences for the artist were… and this is shown in their use of… because…
- My work is inspired by … because I

Write about your influences.
Describe how you have used the artist's work to inspire and inform your artwork.
Describe the qualities you wanted to achieve in your artwork.

- I used the work of artist… to inspire my own work by …

CONNECTIVES: for example, such as, in addition to, as well as, to show, however, because of, alternatively, except, also, similarly, on the whole, apart from, in summary

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AO1
EXPLORE ANNOTATE
BEGIN TO LINK A THEME IMAGES
TO YOUR CHOSEN ARTISTS WORK ARTISTS
WRITTEN ANALYSIS RESEARCH
LINK ARTISTS WORK TO IDEAS AND ARTWORK

AO2
LINKING TECHNIQUES TO ARTISTS AND THEMES EXPERIMENT WITH A RANGE OF MEDIA
TEXTILES WATERCOLOUR
CLAY MIXED MEDIA PHOTOGRAPHS OIL PASTEL PEN AND INK

AO3
IDEAS
IDEAS LINKING TO ARTISTS WORK OBSERVATIONAL DRAWINGS
ALL ARTWORK LINKING TOGETHER PLANS
PLANS, DESIGNS IN A RANGE OF DIFFERENT MEDIA EXPLANATIONS ANNOTATION

AO4
FINAL PIECE OF WORK
MEANINGFUL INFORMED RESPONSE SHOW UNDERSTANDING
LINK BETWEEN VISUALS AND ARTISTS PRESENTATION LINKS TO ARTISTS WORK RELEVANT
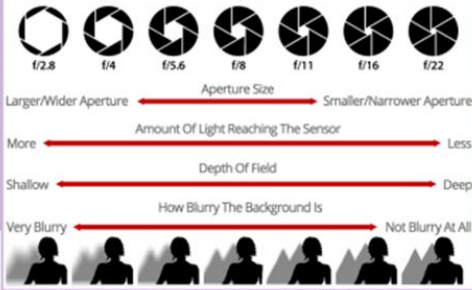
CAMERA SETTINGS

Manual settings give you control of the camera and the photographic outcome. There are three settings, aperture, shutter speed and ISO, which alter the outcome of the photograph. This is known as the exposure triangle.

EXPOSURE TRIANGLE

Exposure triangle diagram — SHUTTER SPEED / LENS OPENING (Aperture) / EXPOSURE TIME (Shutter Speed) / LIGHT SENSITIVITY (ISO), ISO 100 200 400 800 1600 3200 6400, LOW (LESS LIGHT) — ISO — HIGH (MORE LIGHT)

APERTURE

Aperture is how open or closed the lens is, which allows light to pass through. It is often abbreviated as A or AV on a camera mode. To capture close-up images a wider lens is used, for detail in the distance a smaller lens

f/1.8 f/2.8 f/4.0
f/5.6 f/16 f/22

f/2.8 f/4 f/5.6 f/8 f/11 f/16 f/22

Aperture Size
Larger/Wider Aperture ← → Smaller/Narrower Aperture

Amount Of Light Reaching The Sensor
More ← → Less

Depth Of Field
Shallow ← → Deep

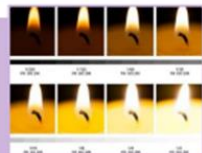How Blurry The Background Is
Very Blurry ← → Not Blurry At All

SHUTTER SPEED

Shutter speed is how quickly the shutter of the lens opens and closes. The measurement used to shutter speed is how long the shutter is open and is shown as fractions of a second, for example 1/4s is a quarter of a second.

1/500 1/250 1/125 1/60 1/30 1/15 1/8 1/4 1/2 1s

Shutter speed is used for movement and action shots.

Shutter speed is also used to control exposure; too bright is 'overexposed' and too dark is 'underexposed'.

ANNOTATION

Annotations are written explanations or critical comments added to your work that record and communicate your thoughts and ideas. It is important that you annotate you work as it progresses; explaining, describing and evaluating.

KEY VOCABULARY: VISUAL ELEMENTS

Shape, Form, Space	Tone	Texture and Pattern	Line	Colour	Composition
Distorted	Dark/Medium/Light	Repeated	Controlled	Hue	Arrangement
Flat	Faded	Structured	Continuous	Tint	Cropping
Organic	Harsh	Geometric/Organic	Bold	Bright	Leading eye
Geometric	Contrasting	Uniform	Sketched	Harmonious	Viewpoint
Negative/Positive	Intense	Symmetrical	Rough	Complementary	Balance
Perspective	Sombre	Irregular	Light	Monochrome	Tension
Scale	Faint	Rough/Smooth	Flowing	Neutral	Contrast
Depth	Dramatic	Broken	Thick/Thin	Subtle	Rule of thirds
2D/3D	Shadow	Fine	Broken	Vivid	Depth of field
	Highlight	Uneven	Overlapping	Cool/Warm	Foreground/ middle ground/ background
				Contrasting	

KEY VOCABULARY: TECHNICAL TERMINOLOGY

Aperture: Lens type (macro, wide angle), focal point, depth of field (deep, short, sharp, focused, blurred)
Shutter speed: over/under exposed, motion blur, panning, sharp
Lighting: type of lighting (natural/daylight, flash, fluorescent, studio light) level of control (positioned, reflected, manipulated, intensity, distance), descriptive terms (tonal range, contrast, saturation, glare)

What to write and how to start

Describe the context of the piece.
What is it? (What is the theme of your photography?)
What is the purpose? (Initial ideas, development, exploring techniques?)

- This photoshoot is exploring …
- My theme/focus has been …
- My subject matter has been… this is because…

Write about materials, techniques and processes used.
What photography techniques have you explored?
Explain the techniques or processes used.
How did you develop your outcomes and why?
Evaluate your outcome.

- This photoshoot explored … technique
- My second photoshoot explored…
- I am pleased with this outcome because …
- I could further develop my photos by…
- The stages of this type of image manipulation are…

Explain your artist research and its context.
Which artist has influenced your work and why is their work relevant?
How would you describe their work and influences? (What is their style or theme, when produced, what techniques used)
What photographic techniques have you used in your work and how do these link to the artist's style?
How have you used the artist style in your own way?

- I have chosen to look at photography by the artist … They link to my theme because…
- Their work was created during the … movement in … and focuses on…
- The photographer uses…… photography techniques because…
- My work is inspired by … because I have used…

Write about your influences.
Describe how you have used the artist's work to inspire and inform your work.
Describe the qualities you wanted to achieve in your work.

- I used the work of artist/photographer… to inspire my own work by …

CONNECTIVES: for example, such as, in addition to, as well as, to show, however, because of, alternatively, except, also, similarly, on the whole, apart from, in summary

AO1
EXPLORE ANNOTATE IMAGES ARTISTS RESEARCH
BEGIN TO LINK A THEME TO YOUR CHOSEN ARTISTS WORK WRITTEN ANALYSIS LINK ARTISTS WORK TO IDEAS AND ARTWORK

AO2
EXPERIMENT WITH A RANGE OF MEDIA WATERCOLOUR PEN AND INK
LINKING TECHNIQUES TO ARTISTS AND THEMES TEXTILES CLAY MIXED MEDIA OIL PASTEL PHOTOGRAPHS

AO3
IDEAS OBSERVATIONAL DRAWINGS PLANS EXPLANATIONS ANNOTATION
IDEAS LINKING TO ARTISTS WORK ALL ARTWORK LINKING TOGETHER PLANS, DESIGNS IN A RANGE OF DIFFERENT MEDIA

AO4
FINAL PIECE OF WORK SHOW UNDERSTANDING LINKS RELEVANT
MEANINGFUL INFORMED RESPONSE LINK BETWEEN VISUALS AND ARTISTS PRESENTATION TO ARTISTS WORK

Business

Retail Business	Unit 3: Merchandising and marketing retail products	YEAR 10 / YR 11

What I Need to Know
To understand and explain the purpose of visual merchandising
To identify and explain different types of visual merchandising
To identify and explain the different principles of visual merchandising

Key Vocabulary	
E-Commerce and m-commerce	Online shopping, which is also referred to as e-commerce and e-tailing, is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet. The Internet has made it much easier for retailers of all sizes and in different markets to sell their products and services to a wider range of customers. Recently there has been an increase in sales from wireless handheld devices; this is referred to as m-commerce. Online retailing allows customers to buy products without visiting a physical store. Can include retailer's own website or a third-party marketplace such as Amazon. Visual merchandising is used by online retailers to display their products and services onscreen.
Pop-up shops	Temporary or pop-up shops often use vacant premises for a short period of time. Some pop-up shops create and build their own temporary shops on the high street or in shopping malls.
Markets	Markets are places, either indoor or outdoor, where there are many stalls that sell a range of products. Market stall owners, usually small scale and independent, run the stalls. Some markets are permanent in a specific location, others are temporary and may move location.
Multi-channel retailing	Multi-channel is using more than one of the retail channels to sell through. For most retailers this means selling in a physical store and online. Often referred to as 'clicks and bricks' which means that businesses need to have a web presence (clicks), plus a physical presence on the high street or in shopping centres (bricks). Using a multi-channel approach can increase the number of potential customers and therefore increase sales and profit.
Retail types	Retail types include department stores, supermarkets, warehouses, clothing stores, specialty stores convenience stores, discount stores, independent shops and charity shops.
Scale	A retail business that operates at a local level is often small, limited in size, the number of people it employs and the revenue it creates. A national retail business will operate all over one country. It may have multiple retail outlets throughout the country, and a distribution network to ensure it can distribute its products to where they are being sold. A global retail business will operate internationally throughout the world.
Product type	Different types of retail products include perishable and non-perishable goods, high value items, high volume goods, low volume goods, fragile items, large items, items which are part of a product range, and restricted goods.
Target customers	Without customers, retail business will fail. Any successful business must be able to identify potential customers and understand the reasons why customers are willing to visit its store and pay for the products or services the business is selling.

Key Vocabulary	
Gender	Some products are aimed at men and some at women. Some retail businesses will target a particular gender while others will sell products to appeal to more than one to increase sales.
Income	Depending on their income customers will buy more expensive or cheaper products. Retail businesses know this so they will offer a range of products at different price points.
Lifestyle	Peoples lifestyles are the individual patterns of behaviour; this is made up of their attitudes, beliefs and habits. Lifestyles also include interests and hobbies.
The marketing mix	The marketing mix consists of four important factors needed to sell products and services; product, price, promotion, and place (known collectively as the 4Ps)
Product features and Design	Many customers will buy a particular product because of its features and design. Retail businesses need to sell products that give the customer the features and design. Retail businesses need to sell products that give customer the features and design they want.
Product differentiation	Product differentiation is used in retail businesses to make their products different from other products they sell, and make them different from those offered by its competitors.
Packaging	Packaging is an important tool in selling as well as protecting the product. Every product we buy must be packaged.
Customer Service	Many retail businesses have a good reputation for providing a high level of customer service.
Use of brands	Product design and innovation, USP, customer service and packaging all contribute towards branding of a product.

Drama

PERFORMING ARTS	BTEC COMPONENT 1: EXPLORING THE PEFORMING ARTS	YEAR 10 / 11

COMMAND WORDS – LEARNING AIM A

1	IDENTIFY & DEFINE (Level 1 pass / merit)	Create a list of the stylistic qualities and say what they mean. Create a list of the features of the roles, responsibilities and skills and say what they mean.
2	DESCRIBE (Level 2 pass)	Give some clear features of the stylistic qualities and what they mean. Give some clear features of the roles, responsibilities and skills, including all of the main points.
3	ANALYSE (Level 2 merit)	Talk about the stylistic qualities, thinking about what professionals have done well, what would have been tricky how they have/could have overcome this using their skills.
4	EVALUATE (Level 2 distinction)	Go into detail about why the stylistic qualities are effective/not effective in the performance and justify why you think this.

LEARNING AIM A: Investigate how professional performance or production work is created

1. *Investigating the STYLE of professional performances and how it communicates a THEME.*
2. *Investigating WHO makes theatre performances, what their JOBS are and the SKILLS they need to do it.*

KEY VOCABULARY - LEARNING AIM A

1	PERFORMANCE STYLE	The 'type' of performance and the way it is created and performed. For example: Realism, Melodrama, Physical Theatre, Epic Theatre, Political Theatre, Verbatim Theatre
2	STYLISTIC QUALITIES	Drama techniques and conventions that are specific to a style of performance. For example, exaggerated gestures and slapstick comedy in Pantomime / natural speech and realistic physicality in Realism / choral movement and minimal set in Physical Theatre
3	PRACTITIONER / THEATRE COMPANY	A person or company who has influenced theatre in a big way or has a distinct style of performance e.g. Charlie Chaplin (Slapstick Comedy), Stanislavski (Naturalism), Frantic Assembly (Physical Theatre).
4	ROLES	A person's job to create a theatre performance Performance roles: actor / dancer / singer/ puppeteer, etc… Non-performance roles: choreographer /set designer / director / writer etc…
5	RESPONSIBILITIES	What the practitioner is in charge of doing or the tasks they carry out. For example, rehearsing /performing /contributing to the creation and development of performance material / devising, designing, choreographing, directing, writing / refining performance material / managing self and others.
6	SKILLS	What the practitioner needs to be good at to make a theatre performance. For example, script writing, creative and research skills for a writer / line recall, vocal and physical skills for an actor / communication, research and visualisation skills for a director.
7	CREATIVE INTENTIONS	The decisions, made by theatre makers, to communicate deeper meaning through their work. It includes decisions about how they want the audience to feel, what atmosphere they want to put across to the audience and how they want character's to be interpreted.
8	PURPOSE	Why was it made? To educate / to inform / to entertain to provoke/ to challenge viewpoints / to raise awareness / to celebrate…
9	THEME / ISSUE	What the performance is about or the problem/idea it explores.
10	STIMULUS	The starting point where the main ideas for the performance come from.
11	INFLUENCES AND COLLABORATION	Other professionals that have created similar work in the past which has given professionals new ideas. This can also include working together with others who like to create similar work or merging ideas together.

COMMAND WORDS – LEARNING AIM B

1	IDENTIFY & DEFINE (Level 1 pass / merit)	Create a list of the processes, skills and approaches to create a performance and say what they mean.
2	DESCRIBE (Level 2 pass)	Give a clear, straightforward account of the processes, skills and approaches to create a performance. Give a clear, straightforward account of the production process, which includes all of the main points.
3	ANALYSE (Level 2 merit)	Talk about how professionals in theatre work together, thinking about what parts of the process worked well, what parts were tricky and how practitioners could overcome this using different approaches and skills.
4	EVALUATE (Level 2 distinction)	Go into detail about how professionals in theatre have worked together to create a production and justify why this was effective.

LEARNING AIM B: Demonstrate understanding of the skills, techniques and approaches used by professionals to create performance / production work.

1. *Explore the JOURNEY taken to get ideas, create and rehearse performances and the SKILLS and TECHNIQUES needed to do this*
2. *Explore how different roles work together to put on a final production.*

KEY VOCABULARY - LEARNING AIM B

1	PROCESSES	The steps taken in the journey to prepare for a performance. This could be: Researching a stimulus to come up with ideas for a performance / exploring and developing ideas / discussion with performers / setting tasks for performers / sharing ideas and intentions / teaching material to performers / developing performance material / organising and running rehearsals / refining and adjusting material to make improvements / providing notes and/or feedback on improvements.
2	SKILLS	What the performer / designer needs to be good at in the process (journey) of putting on a theatre performance. For example: organisation, planning and artistic skills for a Set Designer / musical, timing and collaborative skills for a Choreographer / time management, technical and imaginative skills for a Lighting Designer
3	APPROACHES	The different methods used to prepare for a performance. This could be in a rehearsal / production / technical rehearsal / dress rehearsal / performance / post-performance evaluation For example: one director might approach the rehearsal process by blocking the scene at first, whereas another director might approach the rehearsal process by getting the actors to improvise at first.
4	REPERTOIRE	The production that you are studying e.g. 'Blood Brothers'
5	INTERRELATIONSHIPS	How different roles and parts in theatre have worked together to create the performance.
6	PRODUCTION PROCESS	This refers to the events leading up to putting on a production e.g. rehearsals, production meetings (with designers etc…), technical rehearsals, dress rehearsals, performance and the reviews after a performance.
7	CONTRIBUTE EFFECTIVELY	Add something positive to the performance. This could be by making it clearer, more entertaining, more engaging, easier for the actors etc…

English - A Christmas Carol – Knowledge Organiser

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.

Key characters	Key themes	Historical context	Stylistic features and relevant terms
Ebernezer 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.	**Social Responsibility** **Capitalism** **Poverty** Class Isolation Transformation The passage of time Family **Redemption**	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. 1832 – The Great Reform Bill gave many middle class property owners the right to vote for the first time. Large sections of the middle classes, the working classes and women still didn't have the right to vote. 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.	Allegory Ambiguity Analepsis **Light imagery** **Morality tale** Malthusian economics **Metaphor** **Motif** **Pathetic fallacy** Personification

| 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 | Christmas Spirit | December 1843 Dickens writes A Christmas Carol focusing on how many of society's ills can be blamed on greed for money and status. | Simile |
| | | December 1843 Dickens writes A Christmas Carol focusing on how many of society's ills can be blamed on greed for money and status. | Symbolism |

Key Quotations
"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."
"The cold within him froze his old features, nipped his pointed nose, shrivelled his cheek, stiffened his gait; made his eyes red, his thin lips blue; and spoke out shrewdly in his grating voice. A frosty rime was on his head, and on his eyebrows, and his wiry chin. He carried his own low temperature always about with him; he iced his office in the dog-days; and didn't thaw it one degree at Christmas. External heat and cold had little influence on Scrooge. No warmth could warm, no wintry weather chill him. No wind that blew was bitterer than he, no falling snow was more intent upon its purpose, no pelting rain less open to entreaty. Foul weather didn't know where to have him. The heaviest rain, and snow, and hail, and sleet, could boast of the advantage over him in only one respect."
"No beggars implored him to bestow a trifle, no children asked him what it was o'clock, no man or woman ever once in all his life inquired the way to such and such a place, of Scrooge."
"It was cold, bleak, biting weather: foggy withal: and he could hear the people in the court outside, go wheezing up and down, beating their hands upon their breasts, and stamping their feet upon the pavement stones to warm them. The city clocks had only just gone three, but it was quite dark already-- it had not been light all day--and candles were flaring in the windows of the neighbouring offices, like ruddy smears upon the palpable brown air. The fog came pouring in at every chink and keyhole, and was so dense without, that although the court was of the narrowest, the houses opposite were mere phantoms. To see the dingy cloud come drooping down, obscuring everything, one might have thought that Nature lived hard by, and was brewing on a large scale."
"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; his face was ruddy and handsome; his eyes sparkled, and his breath smoked again."
"'…a few of us are endeavouring to raise a fund to buy the Poor some meat and drink, and means of warmth. We choose this time, because it is a time, of all others, when Want is keenly felt, and Abundance rejoices. What shall I put you down for?' 'Nothing!' Scrooge replied."
"Foggier yet, and colder. Piercing, searching, biting cold."
The fog and frost so hung about the black old gateway of the house, that it seemed as if the Genius of the Weather sat in mournful meditation on the threshold.
'If he wanted to keep them after he was dead, a wicked old screw,' pursued the woman, 'why wasn't he natural in his lifetime? If he had been, he'd have had somebody to look after him when he was struck with Death, instead of lying gasping out his last there, alone by himself.'
"…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."

"He went to church, and walked about the streets, and watched the people hurrying to and fro, and patted children on the head, and questioned beggars, and looked down into the kitchens of houses, and up to the windows, and found that everything could yield him pleasure. He had never dreamed that any walk – that anything – could give him so much happiness."
"Darkness is cheap, and Scrooge liked it."
"The chain he drew was clasped about his middle. It was long, and wound about him like a tail; and it was made (for Scrooge observed it closely) of cash-boxes, keys, padlocks, ledgers, deeds, and heavy purses wrought in steel."
"Old Fezziwig...laughed all over himself...and called out in a comfortable, oily, rich, fat, jovial voice:"
"It was a strange figure-like a child: yet not so like a child as like an old man, viewed through some supernatural medium, which gave him the appearance of having receded from the view, and being diminished to a child's proportions."
"'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.' Scrooge said he knew it. And he sobbed"
"There sat a jolly Giant who bore a glowing torch...and held it up, high up, to shed its light on Scrooge."
"The Phantom slowly, gravely, silently approached. When it came, Scrooge bent down upon his knee; for in the very air through which this Spirit moved it seemed to scatter gloom and mystery."
"in the busy thoroughfares of a city, where shadowy passengers passed and repassed; where shadowy carts and coaches battled for the way, and all the strife and tumult of a real city were."
"There was an eager, greedy, restless motion in the eye, which showed the passion that had taken root, and where the shadow of the growing tree would fall."
"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.
"...though Scrooge pressed it down with all his force, he could not hide the light: which streamed from under it, in an unbroken flood upon the ground."
A merry Christmas to everybody! A happy New Year to all the world!"

Geography

Urban Change in a Major UK City: Stoke on Trent Case Study

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.

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 Crucible Theatre & museums. Also Festival Park/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 Wesport Lake. Trentham Gardens is in the suburbs whilst The Peak District is a few minutes drive away.

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.

Stoke on Trent Regeneration Projects

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

Urban Change in a Major NEE City: RIO DE JANEIRO Case Study

Location and Background

Rio is a coastal city situated in the South East region of Brazil within the continent of South America. It is the second most populated city in the country (6.5 million) after Sao Paulo.

City's Importance

- Has the second largest GDP in Brazil It is headquarters to many of Brazil's main companies, particularly with Oil and Gas.
- Sugar Loaf mountain is one of the seven wonders of the world.
- One of the most visited places in the Southern Hemisphere.
- Hosted the 2014 World Cup and 2016 Summer Olympics.

Migration to Rio De Janeiro

The city began when Portuguese settlers with slaves arrived in 1502. Since then, Rio has become home to various ethnic groups.

However, more recently, millions of people have migrated from rural areas that have suffered from drought, lack of services and unemployment to Rio. People do this to search for a better quality of life.

This expanding population has resulted in the rapid urbanisation of Rio de Janeiro.

City's Opportunities

Social: Standards of living are gradually improving. The Rio Carnival is an important cultural event for traditional dancing and music.

Economic: Rio has one of the highest incomes per person in the country. The city has various types of employment including oil, retail and manufacturing.

Environmental: The hosting of the major sporting events encouraged more investment in sewage works and public transport systems.

City Challenges

Social: There is a severe shortage of housing, schools and healthcare centres available. Large scale social inequality, is creating tensions between the rich and poor.

Economic: The rise of informal jobs with low pay and no tax contributions. There is high employment in shanty towns called Favelas

Environmental: Shanty towns called Favelas are established around the city, typically on unfavourable land, such as hills.

Self-help schemes - Rocinha, Bairro Project

- The authorities have provided basic materials to improve peoples homes with safe electricity and sewage pipes.
- Government has demolished houses and created new estates.
- Community policing has been established, along with a tougher stance on gangs with military backed police.
- Greater investment in new road and rail network to reduce pollution and increase connections between rich and poor areas.

Health and Social Care

LP2 Health and Social Care

Year 10 Human Lifespan Development

Different social relationships

Formal relationships: connections formed between professionals. Both people within the 'relationship' know what the boundaries are and how to act appropriately with each other

Informal relationships: relationships between family members. This is where the person is not paid to know the person but chooses to stay

Friends: when people with similarities meet and find a connection based on their mutual appreciation for each other.

Intimate relationships: These are romantic relationships where people build loving bonds with each other and provide intimate support to each other

Case Study 1

Freddie, 17, has recently moved from high school to college. His old school was quite small and now has gone to one of the biggest colleges in the local area. He feels like he does not fit in and is scared of being isolated from people. He also recently discovered that he suffers from Asthma which limits his ability to participate in sport. He wants to remain fit, but has to travel 30 minutes by bus each way to college and with the college work he has to do does not feel he can cope.

Case study 2

Sophia, 8, has moved from her home country of Guinea to England. Her English is limited and has not got many friends. She is constantly getting frustrated with other people not understanding her. She also struggles with her school work as it is different from what she studied previously. She is worried others view her as stupid. She lives in a small 2 bedroom flat with her mother and brother. Her mother is still looking for a job, and they rely on the local foodbank for their meals.

Case Study 3

Kathline, 35, has recently lost her child to a long battle with an illness. She is married and is a member of several social clubs who offer her support. She found herself falling into taking substances and relying on alcohol to cope throughout the day. Her husband and friends are worried about her mental and physical Health.

How to read and understand a case study.

When reading through the case study you need to identify the following aspects:

- Life stage of the individual
- The gender of the individual
- The difficulties they are facing from their circumstances
- Highlight any positive or negative that is obvious
- Underline or find different social groups they might be a part of such as sports clubs or religious groups

When you have found all of these bullet points you then need to understand what the question is asking.

For example if the questions asks about the support types that the person has you need to think of how being a member of a family or social group could help them to overcome the issues.

How to use the information:

'Tony is 54 and recently divorced. He goes to his local rugby club every Saturday and often drinks 5 pints a game'

There are 3 main elements of this text:

His age: 54—Middle Adulthood

His social life: He visits a local rugby club which means there will be other people to talk to. This means he could talk to them about how he feels in relation to his divorce.

His lifestyle: He drinks—whilst 5 pints is not a lot. Alcohol is a depressant and this could potentially cause him issues in the future.

Cholera epidemics
1832- 31,000
1849- 62,000
1854- 23,000

The Great Stink of 1858
During July and August 1858 in which the hot weather exacerbated the smell of untreated human waste that was present on the banks of the River Thames. The smell was so bad in the House of Commons that MPs rushed through laws to give money for a new London sewage system.

Industrial 1800-1900

History Knowledge Organiser
Britain: Health and the people

Key individuals

Louis Pasteur - vaccines against fowl cholera, anthrax, and rabies
Robert Koch – Germ Theory, cure for rabies and anthrax.
Queen Victoria – popularized the use of chloroform, using it during childbirth.
James Simpson, - discovered chloroform
Joseph Lister, -Carbolic acid, antiseptic surgery.
Edwin Chadwick – Writes a report
Dr John Snow, - cholera, proved contagion theory
Joseph Bazalgette. – designs the London sewage system.

Factors
Role of the Individual.
Religion
Communication
Government
Science & technology
Chance

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.

Key beliefs

Miasma	Belief that bad smells cause disease.
Germ theory	The theory that bacteria caused diseases.
Laissez- faire	The theory that it was poor people's own fault that they were poor and the government should leave it alone.

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.

Keywords

Tier 2 Words for the World		Tier 3 History Specific Words	
Anesthetic	A substance that puts one to sleep and reduces pain.	Germ theory	A theory that diseases are caused by microorganisms
Antiseptic	Stops the growth of disease-causing bacteria.	Spontaneous Generation	A theory that living organisms can appear from non-living matter.
Miasma	Bad smells, often believed to be the cause of illness and disease.	Pasteurisation	Sterilization of product, such as milk or wine to keep a product fresh.
Sanitation	Cleanliness	Great stink	An event in 1858 where the hot weather exasperated the smell of excrement the River Thames
Aseptic	The absence of germs	Laissez faire	A policy of leaving things alone without interfering
Cholera	Infection caused by contaminated food or water.	Chloroform	A clear liquid used as an anesthetic

Key dates

1832	Cholera outbreak
1842	Edwin Chadwick Public Health Report
1842	Ether used
1844	Nitrous oxide used
1846	Ether used in public demonstration
1848	First Public Health Act
1853	Queen Victoria uses chloroform
1854	Dr Snow discovers cause of cholera
1858	Great stink and Bazalgette starts building sewers
1861	Germ theory
1866	Sanitary Act
1875	Second Public Health Act, Artisan's Dwelling Act, Sale of Food and drugs

Treatments

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, 1884 - cholera and 1882 - tuberculosis. He also discovered stains to dye microbes under a microscope. Pasteur and Koch were rivals and sponsored by their governments which motivated their work. Pasteur and his team created a vaccine for rabies and anthrax. This work was accepted in Britain due to John Tyndall and William Cheyne. Paul Ehrlich (Koch's assistant) found chemicals that would not only stain but kill specific types of bacteria. In 1909 he discovered a chemical cure for syphilis. These cures became known as 'magic bullets'. Prontosil worked against the germs that caused blood poisoning and 'sulpha drugs' were developed for meningitis, pneumonia and scarlet fever.

Modern 1900-Present

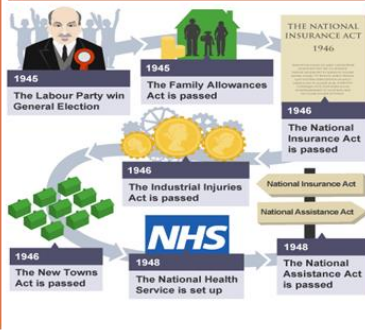# History Knowledge Organiser Britain: Health and the People 4. Modern medicine.

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

Factors
Role of the Individual.
Religion
Communication
Government
Science & technology
Chance
War

Key individuals

Alexander Fleming, - discovered penicillin.
Howard Florey, Ernst Chain, William Beveridge, - wrote a government report saying people deserved to be free of poverty
Aneurin Bevan - Minister of Health who introduced the NHS.
Christian Barnard – completed the first heart transplant.
Francis Crick and James Watson - discovered DNA

1945 - The Labour Party win General Election
1945 - The Family Allowances Act is passed
1946 - The National Insurance Act is passed
1946 - The Industrial Injuries Act is passed - National Insurance Act
1946 - The New Towns Act is passed
1948 - The National Health Service is set up
1948 - The National Assistance Act is passed

THE NATIONAL INSURANCE ACT 1946

NHS

Proud to be part of the NHS

THE NEW NATIONAL HEALTH SERVICE

Public health

By 1900 poverty was still an issue in Britain. This was highlighted by the Boer War of 1899-1902. 40% of the men who volunteered were not fit for military service mostly due to poor diet and poverty-related illnesses. This was supported by the work of Booth and Rowntree. Booth studied London and created a map showing the distribution of poverty across London. In his book 'Life and Labour of the People in London' he wrote that 30% of the population lived in poverty despite many working. In York Seebohm Rowntree discovered that 28% of the population were in poverty but also that this could change during their lifetime. This he displayed in his poverty line. These concerned the government as did rivalry from nations including Germany and the USA. 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). After the was the Labour Party set up the Welfare State to care for people 'from the cradle to the grave'. The NHS began in 1948 initially with completely free health care. A weekly child care payment, benefits for the very poor and slum clearance were all part of this. The NHS budget in 2015-2016 was £116 billion. In the C21st the government continues to try and improve health - 2006 a smoking ban was passed in public places extended to cars in 2015.

Keywords

| T2 word for the world	
Bacteria	A one cell organism
Antibiotics	A medicine that destroys bacteria
X-rays	A digital image of inside the human body
Infection	A disease
Transplant	Moving of organs from one person/animal to another.
Poverty	Being extremely poor
Pension	Payment made to the old, sick or disabled
Old Age Pension	Payment made to the elderly to help them live
Disease	A condition which harms the body.
Squalor	Extremely dirty and in poverty
Slums	Poor housing
Unemployment	Not having a job.
NHS	National Health Service
Budget	The amount of money incoming and outgoing
T3 History specific words	
Staphylococcus	The bacteria causing staph infection
Boer War	A war between 1899-1902 between Britain and the Boer regions in Africa.
Penicillin	An antibiotic obtained from mould.
Welfare State	A system undertaken by the government to protect the health and well being of its people.
Liberal Reforms	A series of laws passed by the Liberal Government to help reduce poverty between 1906-1914.
DNA	Deoxyribose Nucleic Acid, material that is present in nearly all living organisms as the main part of chromosomes. It is the carrier of genetic information.
AIDS	An autoimmune disease which stigmatized and there is no cure.

Key dates

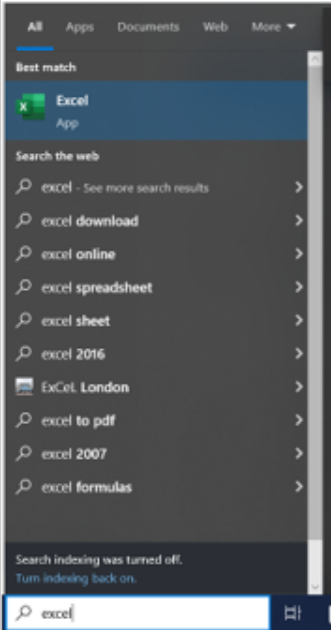|	
1895	X-ray
1899	Boer War
1906	Liberal Reforms, Free School meals
1907	School Medical service
1908	Children and Young Person's Act, Old Age Pension
1909	First job centres
1911	National Insurance Act
1914 -18	WW1 Albert Hustin and storage of blood
1928	Penicillin discovered
1942	Beveridge Report
1948	NHS introduced
1953	DNA discovered
1967	First heart transplant
1978	First IVF baby Louise Brown
1978	Smallpox eradicated
2006	Public smoking ban
2008	First full face transplant

Treatments

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.
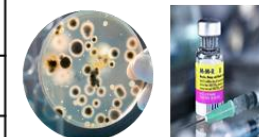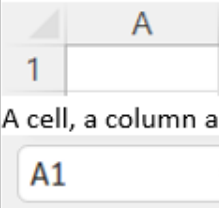
ICT

Key Vocabulary	
Vocabulary	**Definition**
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.
Excel	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.

Knowledge
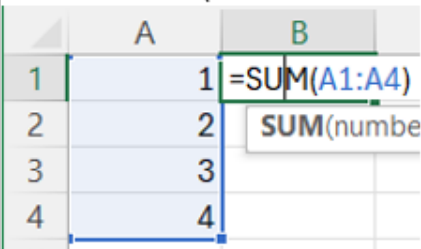
Where to find excel on the windows search bar.
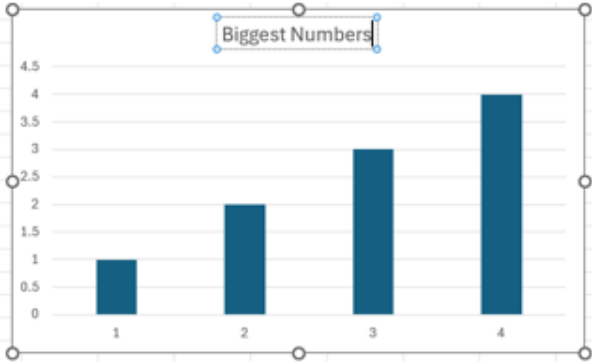
A cell, a column and a row.

A cell reference (the location of the cell)

The SUM function which adds numbers together from a range of cells.

A chart which is visualising data from the spreadsheet.

=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.

YEAR 10 — DEVELOPING ALGEBRA...

Representing solutions of equations and inequalities

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:
- Form and solve equations and inequalities
- Represent and interpret solutions on a number line as inequalities
- Draw straight line graphs and find solutions to equations
- Form and solve equations and inequalities with unknowns on both sides

Keywords

Solution: a value we can put in place of a variable that makes the equation true
Variable: a symbol for a number we don't know yet
Equation: an equation says that two things are equal – it will have an equals sign =
Expression: numbers, symbols and operators grouped together to show the value of something
Identity: an equation where both sides have variables that cause the same answer includes ≡
Linear: an equation or function that is the equation of a straight line
Intersection: the point that two lines meet
Inequality: an inequality compares two values showing if one is greater than, less than or equal to another.

Solve equations (R)
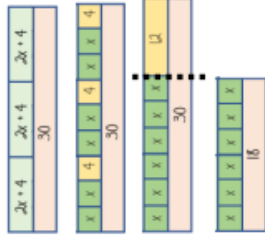
$3(2x + 4) = 30$

$3(2x + 4) = 30$ Expand the brackets

$6x + 12 = 30$
-12 -12

$6x = 18$
-6 -6

Substitute to check your answer. This could be negative or a fraction or decimal

$x = 3$

Solutions on a number line

$x < 1$ $x \leq 1$
Both represent values less than 1

Includes the value 1

$x > 1$ $x \geq 1$
Both represent values more than 1

Includes the value 1

Plotting straight line graphs (R)

$y = 3x - 1$ 3 x the x coordinate then – 1

Draw a table to display this information

x	-3	0	3
y	-10	-1	8

This represents a coordinate pair (-3, -10)

You only need two points to form a straight line

Plotting more points helps you decide if your calculations are correct (if they do make a straight line)

Remember to join the points to make a line

Form and solve inequalities (R)
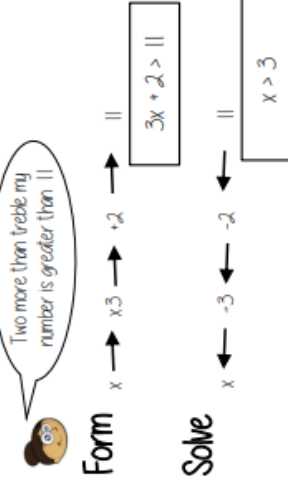
Two more than treble my number is greater than 11

Form
x → ×3 → +2 → $3x + 2 > 11$

Solve
x → ×3 → +2
x ← ÷3 ← -2
$x > 3$

Values less than or equal to 3 but also more than -1
$-1 < x \leq 3$

Includes the value it sits above
Does NOT include the value it sits above
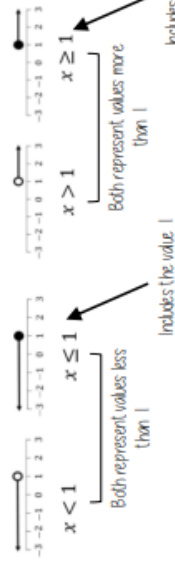
● Includes the value
○ Does NOT include the value
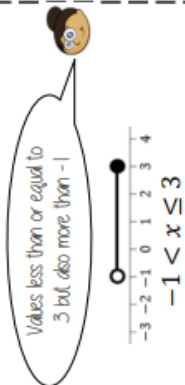
$-1 < x \leq 3$
This includes the integer values 0, 1, 2, 3

Find solutions graphically

For linear equations there is only one point the graph meets the x value

These two lines will cross at (2,4) because they are just x and y – they are parallel to axes and meet in one place

$x = 2$
$y = 4$

$y = 8$ $y = 3x - 1$

$3x - 1 = 8$
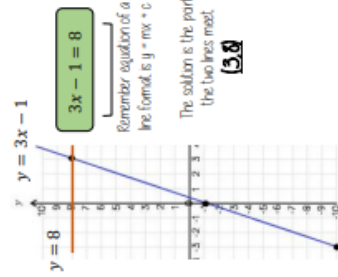
Remember equation of a line format is $y = mx + c$
The solution is the part the two lines meet **(3,8)**

Equations: unknown on both sides (R)

$8x + 5 = 4x + 13$

$8x + 5 = 4x + 13$
$-4x$ $-4x$
$4x + 5 = 13$
-5 -5
$4x = 8$
$\div4$ $\div4$
$x = 2$
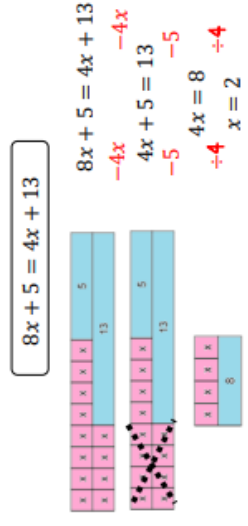
Inequalities: unknown on both sides

$8x + 5 \leq 4x + 13$

$x \leq 2$
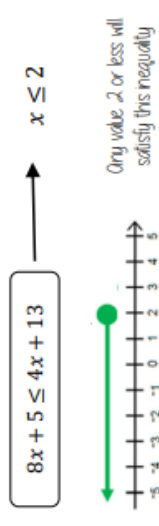
Only value 2 or less will satisfy this inequality

YEAR 10 – DEVELOPING ALGEBRA...
Simultaneous Equations

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Determine whether (x,y) is a solution
- Solve by substituting a known variable
- Solve by substituting an expression
- Solve graphically
- Solve by subtracting/ adding equations
- Solve by adjusting equations
- Form and solve linear simultaneous equations

Keywords

Solution: a value we can put in place of a variable that makes the equation true
Variable: a symbol for a number we don't know yet
Equation: an equation says that two things are equal – it will have an equals sign =
Substitute: replace a variable with a numerical value
LCM lowest common multiple (the first time the times table of two or more numbers match)
Eliminate: to remove
Expression: a maths sentence with a minimum of two numbers and at least one math operation (no equals sign)
Coordinate: a set of values that show an exact position
Intersection: the point two lines cross or meet

Is (x, y) a solution?

x and y represent values that can be substituted into an equation

Does the coordinate (1,8) lie on the line y = 3x+5?

This coordinate represents x = 1 and y = 8

$y = 3x + 5$
$8 = 3(1) + 5$

As the substitution makes the equation correct the coordinate (1,8) **IS** on the line y = 3x+5

Is (2,7) on the same line?
$7 \neq 3(2) + 5$
No 7 does NOT equal 6+5

(2,7)
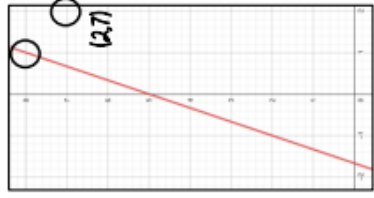
Substituting known variables

A line has the equation 3x + y = 14

Stephine knows the point x = 4 lies on that line. Find the value for y

$3x + y = 14$

Two different variables, two solutions

$3(4) + y = 14$
$12 + y = 14$
$-12 \quad -12$
$y = 2$

$x = 4$

Substituting in an expression

Pair of simultaneous equations (two representations)

$x = 2y$
$x + y = 30$

Substitute 2y in place of the x variable as they represent the same value

$x = 2y$
$x + y = 30$

$3y = 30$
$\div 3 \quad \div 3$
$y = 10$

$x = 2y$
$x = 20$

Solve graphically

$y = 2x$
$x + y = 6$

Linear equations are straight lines
The point of intersection provides the x and y solution for both equations

(2, 4) is the point of intersection

The solution that satisfies both equations is
$x = 2$ and $y = 4$

Solve by addition

$3x + 2y = 16$
$6x - 2y = 2$
$9x = 18$
$x = 2$

$3x + 2y = 16$
$3(2) + 2(y) = 16$
$6 + 2y = 16$
$-6 \quad -6$
$2y = 10$
$y = 5$

Addition makes zero pairs

$= 16$
$= 2$
$= 18$
$x = 2$
$y = 5$

Solve by subtraction

$3x + 2y = 18$
$x + 2y = 10$
$2x = 8$
$\div 2 \quad \div 2$
$x = 4$

$x + 2y = 10$
$(4) + 2y = 10$
$-4 \quad -4$
$2y = 6$
$\div 2 \quad \div 2$
$y = 3$

$x = 4$
$y = 3$

$= 18$
$= 10$

$= 8$
$x = 4$
$y = 3$

Solve by adjusting one

$h + j = 12$ No equivalent values
$2h + 2j = 29$

$2h + 2j = 24$
$2h + 2j = 29$

By proportionally adjusting one of the equations – now solve the simultaneous equations choosing an addition or subtraction method

12
24
29

Solve by adjusting both

$2x + 3y = 39$
$5x - 2y = -7$

Use LCM to make equivalent x OR y values
Because of the negative values using zero pairs and y values is chosen choice

$4x + 6y = 78$
$15x - 6y = -21$

Now solve by addition

$+ y = 39$
$- y = -7$
$= 78$
$= -21$

Addition makes zero pairs

Spanish

Knowledge Organiser Year 10
Diviértete – Have fun!

Mi vida digital	***my digital life***
¿Qué haces con tu móvil?	*What do you do on your phone*
¿Qué haces con tu ordenador	*What do you do on your computer?*
Escucho música	*I listen to music*
mando/recibo mensajes	*I send/receive messages*
Leo las noticias	*I read the news*
Envío correos electrónicos	*I send emails*
Grabo vídeos	*I record videos*
Utilizo las redes sociales	*I use social media*
Hago compras por internet	*I shop on the internet*
Soy adicto/a a	*I am addicted to*
Subímos vídeos	*we upload videos*
Jugamos a los videojuegos	*we play videogames*
Prefiero aplicaciones como	*I prefer apps like...*
Paso...horas al día	*I spend...hours a day*
Todo el tiempo	*all the time*
a veces	*sometimes*
(casi) nunca	*almost never*
Los fines de semana	*at the weekends*

¿Qué actividades te gusta hacer?	
What activities do you like doing?	
me interesa	*I'm interested in*
prefiero	*I prefer*
Estar en casa	*being at home*
Salir con mis amigos	*going out with my friends*
ver películas en mi portátil	*watching films on my laptop*
Leer libros de	*reading books*
Porque es/son	*because it is/they are*
Aburrido/difícil	*boring/difficult*
Divertido/emocionante	*fun/exciting*
Fácil/guay	*easy/cool*
relajante/terrible	*relaxing/terrible*
En mi tiempo libre	*in my free time*
si tengo tiempo	*If I have time*
si tengo dinero	*if I have money*
me ayuda a	*it helps me to*
Estar en forma	*keep fit*
Olvidarme de todo	*stay in touch with*

¿Qué vas a hacer?	**¿What *are you going to do?***
Este fin de semana	*this weekend*
Quiero	*I want*
No puedo	*I can't*
Voy a	*I am going to*
Descansar	*relax*
Hacer los deberes	*do homework*
Ir al cine	*go to the cinema*
Ir a un restaurante	*go to a restaurant*
Ir a la piscina	*go to the pool*
Limpiar my habitación	*clean my bedroom*
Hacer tareas	*do chores*
Tomar un café	*have a coffee*
cuidar a mi perro	*look after my dog*
Tengo planes para	*I have plans for*
estoy libre	*I'm free*
No puedo ir, lo siento	*I can't come, I'm sorry*
De acuerdo	*Ok*
¿A qué hora quedamos?	*What time shall we meet*

¿Qué hiciste?	***What did you do?***
el fin de semana pasado	*last weekend*
La semana pasada	*last week*
El mes pasado	*last month*
Hace una semana	*a week ago*
no hice mucho	*I didn't do much*
fui a un concierto	*I went to a concert*
Jugué a los videojuegos	*I played videogames*
me quedé en casa	*I stayed at home*
Gané una competición	*I won a competition*
fui al gimnasio	*I went to the gym*
Eschuché música	*I listened to music*

¿Qué tal fue?	***How was it?***
Salimos a comer	*we went out to eat*
Comimos en un restaurante	*we ate in a restaurant*
¿Por qué (no) te gusto?	*Why did you (not) like it?*
Me gusto/me encantó	*I liked/loved it*
No me gustó nada	*I didn't like it at all*
Porque fue	*because it was*
Aburrido/a	*boring*
Emocionante	*exciting*
Fantástico/a	*fantastic*
Guay	*cool*
Terrible	*terrible*

Un día fatal	***An awful day***
Tuve un día	*I had a(n)....day*
Estresante/fatal/horroroso/malo	*stressful/awful/horrific/bad*
Comí/no comí nada	*I ate/didn't eat anything*
me caí	*I fell*
La voz del cantante fue terrible	*the singers voice was terrible*
Mi equipo perdió	*my team lost*
Perdí el móvil/al perro	*I lost my phone/dog*
Lo/la/los/las encontré en	*I found it/them in/at*
El fin de semana próximo	*next weekend*
La próxima vez	*next time*
No voy a	*I am not going to*

Music

Y10—LP2—Knowledge Organiser

Compositional techniques:

- Not too fast
- Repeat phrases
- Notes in the melody should be close together
- Simple, don't make it too complicated
- Chord progression for the harmony
- Short rhythms
- Think about the dynamics (which bits are loud and which bits are soft?)
- Think about which instruments you are using and their limitations (what can they do?/what can't they do?)

Notation Symbols:

- Quaver (1/2 beat)
- Crotchet (1 beat)
- Minim (2 beats)
- Semibreve (4 beats)
- Crotchet rest (1 beat)
- Quaver rest (1/2 beat)

LOUD / QUIET
- **ff** fortissimo — extremely loud
- **f** forte — loud
- **mf** mezzo forte — speaking voice
- **mp** mezzo piano — soft speaking voice
- **p** piano — softer than a speaking voice
- **pp** pianissimo — almost a whisper

COMPOSITIONAL FEATURES

MELODY—the main tune of the music

HARMONY— whether or not the music sounds pleasing to the ear and how chords are arranged e.g. is it consonant or dissonant?

TONALITY—Major or minor? What key is it in?

RHYTHM—How long or short the notes are or how the music is played e.g. straight, swung or syncopated?

STRUCTURE—How the music is arranged or laid out e.g. binary form/ternary form/verse chorus (STROPHIC) form

SONIC FEATURES
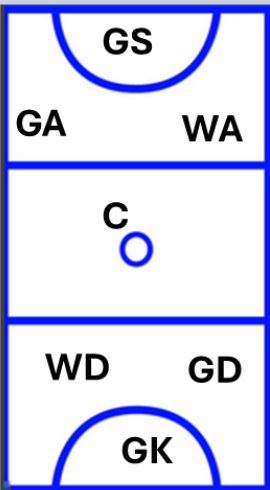
INSTRUMENTATION—Which instruments are used in the piece of music

TEXTURE—How many sounds are present in the piece of music or how it is built up e.g. polyphonic, monophonic, melody and accompaniment

TIMBRE—The quality of the sound e.g. warm, cold, metallic, harsh

PRODUCTION FEATURES— What production techniques are used in the music e.g. EQ, effects processors etc.

Btec Sport

Year 10 - Key Skills - Netball

Passing	Advanced passing and signaling with power and accuracy. Various passes are used within a game; chest, bounce, overhead and shoulder.
Catching	Catching is consistent and mistakes are rare. A skill used to receive the ball, enabling the team to keep possession of the ball.
Footwork	Excellent control when catching the ball performing both two- and one-foot landing. Introduction of running pass.
Dodging	Advanced techniques to outwit opponents. A change of speed and direction in order to get free into space to receive the ball
Shooting	Shooting with control and fluency, shots are on target. A skill used by Goal Attack and Goal Shooter within the game to score a goal

Key Terms

Tactical Skills	*Physical Fitness*
Attack and Defence	Coordination
Free Space	Agility
Losing an opponent	Reaction time
Change of speed	Power
Timing	Stamina
Decision making	Strength

Positions

Key Rules

Players must not make any physical contact with another player on the court.

Players must not mark their opponent with their arms across their body

Simultaneous contact, where both players have caused an obstruction will be settled with a toss up between the two players.

When a penalty pass is given, the offending players must stand by the side of the players who takes the pass

Year 10 - Key Skills - Basketball

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.

Key Terms

Tactical Skills	Physical Fitness
Attack and Defence	Coordination
Free Space	Agility
Losing an opponent	Reaction time
Change of speed	Power
Timing	Stamina
Decision making	Strength

Positions
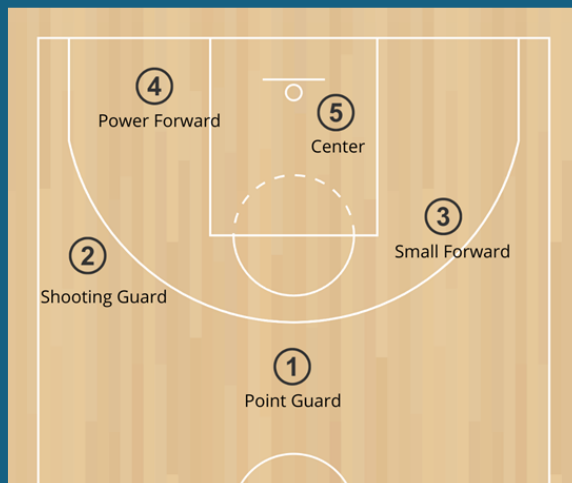
Key Rules

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.
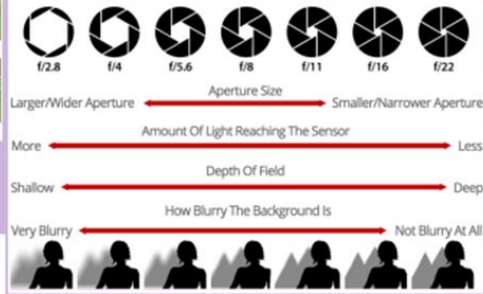
Photography

CAMERA SETTINGS

Manual settings give you control of the camera and the photographic outcome. There are three settings, aperture, shutter speed and ISO, which alter the outcome of the photograph. This is known as the exposure triangle.

APERTURE

Aperture is how open or closed the lens is, which allows light to pass through. It is often abbreviated as A or AV on a camera mode. To capture close-up images a wider lens is used, for detail in the distance a smaller lens
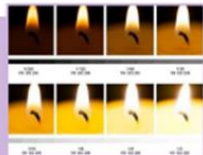
EXPOSURE TRIANGLE

SHUTTER SPEED / LENS OPENING (Aperture) / EXPOSURE TIME (Shutter Speed) / LIGHT SENSITIVITY (ISO)

LOW (LESS LIGHT) — ISO — HIGH (MORE LIGHT)

f/1.8 f/2.8 f/4.0
f/5.6 f/16 f/22

f/2.8 f/4 f/5.6 f/8 f/11 f/16 f/22

Larger/Wider Aperture ← Aperture Size → Smaller/Narrower Aperture

More ← Amount Of Light Reaching The Sensor → Less

Shallow ← Depth Of Field → Deep

Very Blurry ← How Blurry The Background Is → Not Blurry At All

SHUTTER SPEED

Shutter speed is how quickly the shutter of the lens opens and closes. The measurement used to shutter speed is how long the shutter is open and is shown as fractions of a second, for example 1/4s is a quarter of a second.

1/500 1/250 1/125 1/60 1/30 1/15 1/8 1/4 1/2 1s

Shutter speed is used for movement and action shots.

Shutter speed is also used to control exposure; too bright is 'overexposed' and too dark is 'underexposed'.

ANNOTATION

Annotations are written explanations or critical comments added to your work that record and communicate your thoughts and ideas. It is important that you annotate you work as it progresses; explaining, describing and evaluating.

KEY VOCABULARY: VISUAL ELEMENTS

Shape, Form, Space	Tone	Texture and Pattern	Line	Colour	Composition
Distorted	Dark/Medium/Light	Repeated	Controlled	Hue	Arrangement
Flat	Faded	Structured	Continuous	Tint	Cropping
Organic	Harsh	Geometric/Organic	Bold	Bright	Leading eye
Geometric	Contrasting	Uniform	Sketched	Harmonious	Viewpoint
Negative/Positive	Intense	Symmetrical	Rough	Complementary	Balance
Perspective	Sombre	Irregular	Light	Monochrome	Tension
Scale	Faint	Rough/Smooth	Flowing	Neutral	Contrast
Depth	Dramatic	Broken	Thick/Thin	Subtle	Rule of thirds
2D/3D	Shadow	Fine	Broken	Vivid	Depth of field
	Highlight	Uneven	Overlapping	Cool/Warm	Foreground/ middle ground/ background
				Contrasting	

KEY VOCABULARY: TECHNICAL TERMINOLOGY

Aperture: Lens type (macro, wide angle), focal point, depth of field (deep, short, sharp, focused, blurred)
Shutter speed: over/under exposed, motion blur, panning, sharp
Lighting: type of lighting (natural/daylight, flash, fluorescent, studio light) level of control (positioned, reflected, manipulated, intensity, distance), descriptive terms (tonal range, contrast, saturation, glare)

What to write and how to start

Describe the context of the piece.
What is it? (What is the theme of your photography?)
What is the purpose? (Initial ideas, development, exploring techniques?)

- This photoshoot is exploring …
- My theme/focus has been …
- My subject matter has been… this is because…

Write about materials, techniques and processes used.
What photography techniques have you explored?
Explain the techniques or processes used.
How did you develop your outcomes and why?
Evaluate your outcome.

- This photoshoot explored … technique
- My second photoshoot explored…
- I am pleased with this outcome because …
- I could further develop my photos by…
- The stages of this type of image manipulation are…

Explain your artist research and its context.
Which artist has influenced your work and why is their work relevant?
How would you describe their work and influences? (What is their style or theme, when produced, what techniques used)
What photographic techniques have you used in your work and how do these link to the artist's style?
How have you used the artist style in your own way?

- I have chosen to look at photography by the artist … They link to my theme because…
- Their work was created during the … movement in … and focuses on…
- The photographer uses…… photography techniques because…
- My work is inspired by … because I have used…

Write about your influences.
Describe how you have used the artist's work to inspire and inform your work.
Describe the qualities you wanted to achieve in your work.

- I used the work of artist/photographer… to inspire my own work by …

CONNECTIVES: for example, such as, in addition to, as well as, to show, however, because of, alternatively, except, also, similarly, on the whole, apart from, in summary

AO1 EXPLORE ANNOTATE IMAGES ARTISTS RESEARCH — BEGIN TO LINK A THEME TO YOUR CHOSEN ARTISTS WORK WRITTEN ANALYSIS LINK ARTISTS WORK TO IDEAS AND ARTWORK

AO2 EXPERIMENT WITH A RANGE OF MEDIA WATERCOLOUR PEN AND INK — LINKING TECHNIQUES TO ARTISTS AND THEMES TEXTILES CLAY MIXED MEDIA PHOTOGRAPHS OIL PASTEL

AO3 IDEAS OBSERVATIONAL DRAWINGS PLANS EXPLANATIONS ANNOTATION — IDEAS LINKING TO ARTISTS WORK ALL ARTWORK LINKING TOGETHER PLANS, DESIGNS IN A RANGE OF DIFFERENT MEDIA

AO4 FINAL PIECE OF WORK SHOW UNDERSTANDING LINKS TO ARTISTS WORK RELEVANT — MEANINGFUL INFORMED RESPONSE LINK BETWEEN VISUALS AND ARTISTS PRESENTATION

Religious Education

Marriage and the family

1. Marriage

Christian attitudes

Jesus taught that:
- Marriage was established by God when he created humans: *'But at the beginning of creation God made them male and female. For this reason a man will leave his father and mother and be united to his wife, and the two become one flesh'* (Mark 10:6-8)
- In marriage, God joins the couple together in a sacred bond that humans have no right to break: *'So they are no longer two, but one flesh. Therefore what God has joined together, let no one separate'* (Mark 10:9-10)
- Jesus believed in Monogamy

Christian Church teaches that God created marriage because:
- Lifelong relationship or love, companionship and faithfulness
- Support and comfort of another and enjoy sex in the way God intended to procreate
- Children are brought up in a Christian family and become members of the church
- A sacrament in the Roman Catholic Church so is a sign of grace

Marriage is important in Christianity because:
- Marriage was created by God as a way of establishing and preserving society
- Marriage is the only acceptable way to have a sexual relationship

Humanist and atheist attitudes

It is up to the individual to make a decision on the commitment within their relationships and accept that many couples choose to live together without marriage (cohabitation). However, Humanists expect sexual relationships to be based on trust and respect and relationships should be exclusive. Many believe marriage is a good for raising a family because it provides:
- A stable legal and financial backing for a relationship
- More social acceptance of the relationship
- More stable home for the family
- Public ritual to declare a couples love

How do Christians respond to non-religious attitudes?

Roman Catholics – object cohabitation and insist on no sex before marriage

Liberal Protestants – accept that couples may live together before marriage but should marry when they start a family. They would only accept pre-marital sex from those in long-term relationships where this is a natural path to marriage.

2. Sexual relationships

Premarital sex – sex before marriage
Cohabitation – living together without being married
Homosexuality – same-sex relationships
Extramarital sex – sex with someone other than husband or wife

Christian attitudes
- Sex is a gift from God to be enjoyed between a married man and woman
- Sex was given to humans by God for the joy, pleasure and bonding of a married couple and to procreate.
- All Christians are against adultery as it is stated in the 10 commandments and it breaks the wedding vows to be faithful.; as well as being condemned by Jesus.
- Many Christians say that premarital and casual sex (promiscuity) is sinful

Humanist and atheist attitudes
- Sex must be consensual (non-consensual = rape)
- Sex must be between people 'of age'
- Adultery/cheating is offensive
- No payment should be made for sex
- Sex should be safe; barriers should be used to prevent disease and unwanted pregnancies

Homosexuality

Christian views

Catholic – homosexuality is not a sin but homosexual sexual relationships are because:
- The Bible condemns homosexual sexual activity
- Sex should procreate which is not possible in homosexual sexual relationships

Evangelical Protestants – homosexuality is a sin and there should be no homosexual Christians because:
- The Bible is the direct word of God and both Old and New Testament condemn homosexuality
- The salvation of Jesus can remove all sin, including homosexuality

Liberal Protestants - lifelong homosexual relationships are acceptable and homosexuals are welcome in the Church because:
- Teachings of the Bible need reinterpreting in light of modern knowledge
- Christianity is centred on love and acceptance
- Scientific research has indicated biological factors and so part of a persons nature.

Humanist and atheist
See no problems with same-sex relationships. Peoples sexuality are their own concern and human right.

3. Families

Nuclear families - married couple of opposite sexes living together with their children (60%)	
Single parent families - Children living in families headed by a lone parent. Due to divorce rates (42%) and increasing numbers of breakdowns of cohabiting couples. Can cause financial pressures , many lone parents are women so children lack paternal roles.	
Same-sex parent families - families living with homosexual parents (21000 in 2014). Many male same sex couples have adopted children.	
Extended families - one where three generations (parents, children and grandparents) are living in the same house, or where all live in close proximity and have frequent contact and reliance. (childcare).	
Blended families - two separate families are joined together when parents decide to marry of cohabit. Due to an increase in remarriage thanks to high divorce rates.	

Christian attitudes

Family was created by God as a basic unit of society and the only place where children should be brought up. They are in a secure and loving environment and will come to love God and follow Jesus. Family is important to Christians because:
- The family is where children are introduced to the faith and attend church, Sunday school and celebrate festivals.
- Family has a duty of teaching morals (right and wrong) to be good citizens
- Parents have a duty to ensure the physical and mental needs of children are met
- Children have a duty to look after their parents according to the 10 Commandments

Other Christian views
- There is a tradition dating back to Jesus that claims that there are more important things that marriage. Marriage is not compulsory and many feel that they can serve God best by remaining single e.g. Roman Catholic priests, nuns or monks.
- Some Christians believe it is not the role of family to make Christians. Children should be educated to make up their own minds
- It is not a child's duty to obey their parents. A Christian family should encourage children to develop their own ideas which may be different from their parents.

Humanist and atheist attitudes

Family is still important regardless of religion. Falling in love and starting a family is a goal in life for most. The purpose of family is:
- Bring up children safe and securely and that their needs are met
- Pass on moral values so that children become good citizens
- Provide emotional and financial support through life

5. Family planning

Contraception

Something used to prevent pregnancy from occurring through sexual intercourse. A couple may choose to use contraception to control the number of children they conceive so that they can maintain a good standard of living for their existing family or if pregnancy would impact on the health of the mother.

Artificial contraception	Natural contraception
- Condoms (male or female)- also prevent the transmission of STDs such as AIDs or HIV - Diaphragm - Contraceptive pill - Contraceptive impact or injection - Intrauterine device (IUD) - For women following unprotected sex: 'Morning after' contraceptive pill Methods such as IUD and 'morning after' are classed as **abortifacients** as they bring about a very early abortion.	- Natural family planning/fertility awareness – planning sex around the most fertile points of a woman's monthly cycle Do not involve any drugs or risk of early abortions. Do not prevent against STDs.

Catholic attitude	Teaches that sex is a gift from God as a source of pleasure for married couples (unitive purpose) as well as creating a family (creative purpose). A couple should be responsible parents which should be achieved through natural methods of family planning. Artificial contraceptives go against Gods intentions. They believe this because: - Contraception is a major cause of sexual promiscuity, broken families, STDs and divorce rates - Some contraceptives have abortifacient effects and so are against the teachings of the church on sanctity of life
Non-Catholic attitude	All forms of contraception are acceptable as long as they are used to restrict family size. They think this because: - Love and justice – contraception raises the standards of living if family sizes are smaller and mothers life is protected. - There is nothing in the Bible that forbids the use of contraception - Sex should be about enjoyment and cementing the bonds of marriage and contraception allows that without making children,
Humanist and Atheist	Contraception results in 'every child being a wanted child and in better, healthier lives for women'. It prevents the spread of STDs and so should be used in casual sexual relationships. Situation ethics would suggest that the most loving thing would be to use contraceptives to reduce the risk of unwanted pregnancies and so abortions, STDs and HIV.

4. Support for families in the local parish

A parish is the area surrounding a local church. Each parish has a parish priest/vicar. Local parishes help families by:
- Having local primary or secondary schools connected to the schools which provide Christian teachings, festivals and worship. They also finance the school building.
- Family friendly worships
- Sunday Schools where children can learn about Christianity
- Provide services for baptism and confirmation
- Many provide marriage counselling services to help those with martial problems
- Many run toddler groups or 'messy church' to help families to socialise
- Youth groups and groups such as brownies, cubs, scouts etc.

The local parish helps out local families because:
- It is the responsibility of the parish to support families to bring up children in a loving and supportive environment
- The family is the place where children are introduced to the faith, the family need help to teach their children and involve them in the sacraments. This helps to grow the Christian family.

6. Divorce and remarriage

There has been a huge increase in the number of divorces between 1950 and 2018 because:
- New laws have meant divorce is much cheaper and easier to obtain
- Women are no longer prepared to accept unequal treatment from men
- Women are more financially independent and can afford to live well after divorce.

Remarriage is now declining as more people choose to cohabit with their new partners, rather than marry.

Christian attitudes
Jesus in some areas of the Gospels seems to ban divorce and remarriage whilst in others accept it on the grounds of adultery.
'I tell you anyone that divorces his wife, except for sexual immorality, and marries another woman commits adultery' (Matthew 19:3-9)

Catholic attitudes	Does not allow religious divorce or remarriage. Marriage is a sacrament and exchange of vows and the only way a marriage can be dissolved is by the death of one of the partners of by annulment (proved that the marriage was never consummated or not a true Christian marriage) The Church does acknowledge civil divorce if it is impossible to live together for the sake of the family, but they are still married in the eyes of God. Remarriage in this situation would be classed as adultery. They think this because: - In Marks Gospel, Jesus taught that divorce was wrong - The couple have a covenant with God in the sacrament of marriage which no earthly power can break - The Catechism of the Catholic Church makes their beliefs about divorce and remarriage very clear. All Catholics should follow this.
Non-Catholic attitude	Most would think that divorce is wrong but allow it if the marriage has broken down. Most Churches will allow remarriage but asked to repent for their failures in their previous marriage and promise that this marriage will be for life. They believe this because: - Jesus allowed divorce in Matthew for adultery - 'Lesser of two evils' in some situations - Christians are allowed forgiveness and a new chance after repenting their sins.
Humanist and atheist attitude	All couples should have the right to divorce if they feel the marriage has failed. Divorce should make sure that financial stability is granted and that children are well provided for. Any divorced person should have the right to remarry.
Situation ethics	Look at the pros and cons of a situation and decide what would be the most loving thing to do. They would look at the advantages and disadvantages of divorce. Children may be a cause for concern in this decision, marriages without children may be pretty simple to decide.

Advantages:	Disadvantages:
- Brings domestic peace & ends conflict - Can find love again - Removes children's exposure to conflict	- It is expensive, split of family home, lawyers etc. - Hurt children and relatives - Causes stress

7. Equality within the family

Christians have different attitudes to the roles of women in the family, due to there being 3 different attitudes in the Bible:

Genesis 1	Men and women are equal as created at the same time and in the image of God 'So God created man in his image, in the image of God he created him; male and female he created them.' (Genesis 1:27)
Genesis 2 & 3	Women were created out of mans rib, therefore women are subordinate to men. Also women persuaded man into sin and gives men and women different roles as punishment. 'I will make your pains in childbearing very severe; with painful labour you will give birth to children. Your desire will be for your husband, and he will rule over you'.
St Paul (Ephesians 5)	Wives should submit to their husbands because the husband is the head of the wife the same way Christ is the head of the Church so should do as husband demands. He also said that a man should love his wife like his own body. He should feed and care for his body and so should his wife too.

Attitudes:

Evangelical Protestants	Men and women have separate and different roles. Role of women to bring up children and role of men to provide for the family. Women should dress modestly and keep their heads covered in church. Men must love their wives as themselves and only men can be church leaders or teachers. They believe this because: - Adam was created first before Eve (Genesis 2) - All of Jesus' disciples were men - St Pauls teachings about the role of women
Liberal Protestants	Men and women are equal and should have equal roles. This is because: - Teaching of Genesis 1 about equality of men and women - 'There is neither Jew nor Gentile, neither slave nor free, nor is there male and female, for you are all one in Christ Jesus' (Galatians 3:23-28) - Evidence in the Gospels of Jesus treating women as his equals.
Catholics	Men and women should have equal roles in the family. 'May her husband put his trust in her and recognise that she is his equal' (Roman Catholic marriage service)
Humanists and atheist	Most common attitude is that men and women are equal and should have equal roles in the family. The reasons for this are: - Laws such as sex discrimination act and Equality act mean that women are treated as equals in the workplace so the same should apply at home. - Universal Declaration of Human Rights claims that everyone should be treated as equals. - Women make a significant contribution to politics and developments in health and social care. - Suffragette movement and the advances in social and industrial developments have led to women having great contributions to society and the acceptance of women as 'breadwinners' in the family.

8. Gender prejudice and discrimination

Gender prejudice – believing that one sex is superior to another based on feelings
Gender discrimination – putting prejudice into practice and treating people differently because of their sex
Sexism – discrimination, prejudice or stereotyping on the basis of gender.

Evangelical protestants	- Men and women have separate and different roles and only men can be church leaders and teachers. They do not see this as discrimination because it is what God ordained in the New Testament. - St Paul taught that women should not teach or speak in church and so cannot be a church leader - Genesis teaches that men have been given more rights that women as it was woman that led Adam astray.
Catholic Church	- Against gender discrimination as men and women are equal - Catholic Catechism teaches that men and woman are equal in life and society and Catholic should follow this. - Women are able to study and teach, be extraordinary ministers (give out Holy Communion), visit the sick and take funerals.
Liberal Protestants	- Men and women should have equal rights in society and in the Church, they have female minsters, priests and bishops. They believe this because there is evidence that there were women priests in the early Church.

Christian groups that oppose gender discrimination
- **The movement for the Ordination of Women (MOW)** – group campaigning for the ordination of women in the Church of England and succeeded in 1993 with the first ordained female priest.
- **Women and the Church** – campaigning for gender equality in the Church of England and succeeded in 2013 with the first female bishop.
- **Catholics Women Ordination** – working to persuade the Vatican to allow Roman Catholic women to join the ordained ministers but have still not been successful.

Atheist and Humanist attitudes
Humanist are against sexism and promote women's rights. They believe that it is wrong for religion to discriminate against women and refuse to ordain them should be made illegal. However, recent surveys have shown that there is still an issue with gender prejudice and discrimination in society showing that many non-religious people still have this mindset.

Exam practice
Part A questions (3 marks)
- Outline 3 ways in which religious community supports families
- Outline 3 types of families
- Outline 3 religious beliefs about sexual relationships
- Outline 3 beliefs about the purpose of the family
- Outline 3 religious beliefs about marriage

Part B questions (4 marks) (PEX-PEX)
- Explain 2 reasons why some believers disagree with contraception
- Explain 2 religious attitudes to same sex marriage
- Explain 2 religious beliefs about non traditional families
- Explain 2 religious beliefs about sex outside marriage
- Explain 2 ways that children can be introduced to their faith

Part C questions (5 marks) (PEX-PEX-EVEX)
- Explain 2 ways in which religious believers respond to divorce
- Explain 2 religious beliefs about homosexuality
- Explain 2 religious beliefs about gender equality
You need to include a source of wisdom and authority (SoWA)!

Part D questions (12 marks) (DREAREY)
- 'Christians should never treat women differently from men'
Evaluate this statement considering arguments for and against. In your response you should:
- Refer to Christian teachings
- Refer to different Christian points of view
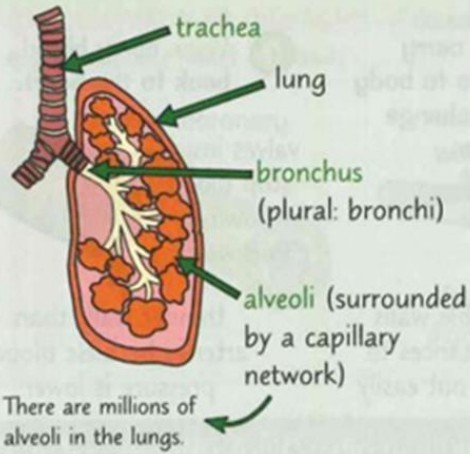- Reach a justified conclusion

- 'Christians should never divorce'
Evaluate this statement considering arguments for and against. In your response you should:
- Refer to Christian teachings
- Refer to different Christian points of view
- Reach a justified conclusion

- 'Parents don't need help from the local parish church to raise their family'
Evaluate this statement considering arguments for and against. In your response you should:
- Refer to Christian teachings
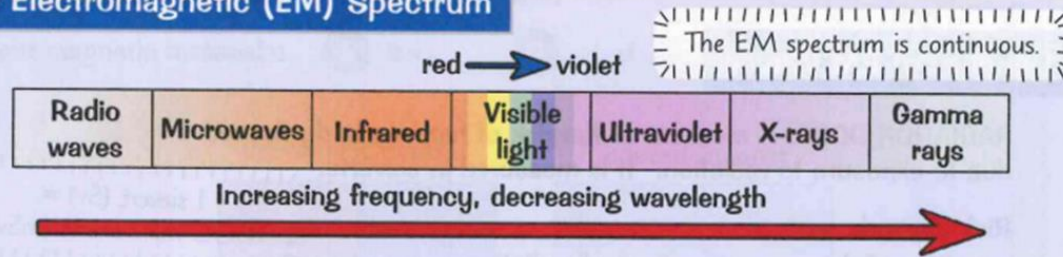- Reach a justified conclusion

- 'Non-religious people have the most sensible attitude to homosexuality'
Evaluate this statement considering arguments for and against. In your response you should:
- Refer to Christian teachings
- Refer to different Christian points of view or non-religious views
- Reach a justified conclusion

- 'The family is more important for Christians than non-religious people'
Evaluate this statement considering arguments for and against. In your response you should:
- Refer to Christian teachings
- Refer to different Christian points of view
- Reach a justified conclusion

Science

The Lungs

- trachea
- lung
- bronchus (plural: bronchi)
- alveoli (surrounded by a capillary network)

There are millions of alveoli in the lungs.

The Electromagnetic (EM) Spectrum

The EM spectrum is continuous.

red → violet

Radio waves	Microwaves	Infrared	Visible light	Ultraviolet	X-rays	Gamma rays

Increasing frequency, decreasing wavelength

EM waves:
- Are transverse.
- Transfer energy from source to absorber.
- Travel at same speed in air or vacuum.

Our eyes can only detect visible light.

EM waves created and absorbed over large frequency range due to changes in atoms and their nuclei.

Gamma rays created by changes in atom's nucleus.
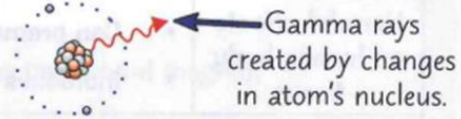
Exchange Surfaces

Usually have these four things:

1. A large surface area (so lots can diffuse at once)
2. A thin membrane (for a short diffusion distance)
3. An efficient blood supply (in animals)
4. Ventilation (in gas exchange in animals)

Gas Exchange

- alveolus
- air goes in and out
- gases diffuse between the alveolus and the blood
- blood coming from the rest of the body (lots of CO_2)
- CO_2
- O_2
- blood going to the rest of the body (lots of O_2)
- capillary
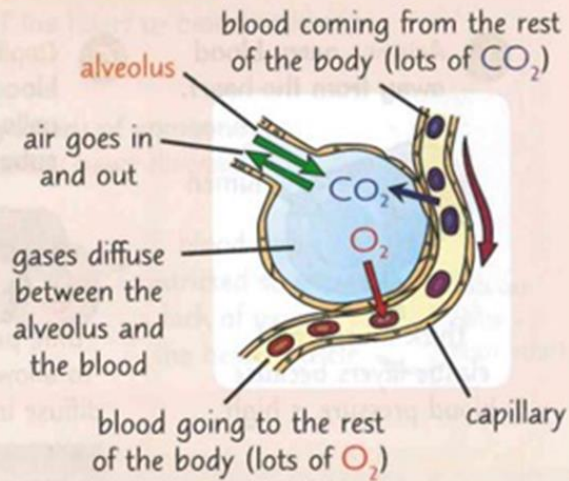
The Endocrine System

ENDOCRINE SYSTEM — made up of glands that secrete chemicals (known as hormones) directly into the bloodstream, which carries them to the target organs.

Testes (male) produce testosterone

The effects of hormones are slower than nerves but last longer.

- Pituitary gland 'master gland', stimulates other glands
- Thyroid produces thyroxine
- Adrenal gland produces adrenaline
- Pancreas produces insulin
- Ovaries (female) produce oestrogen
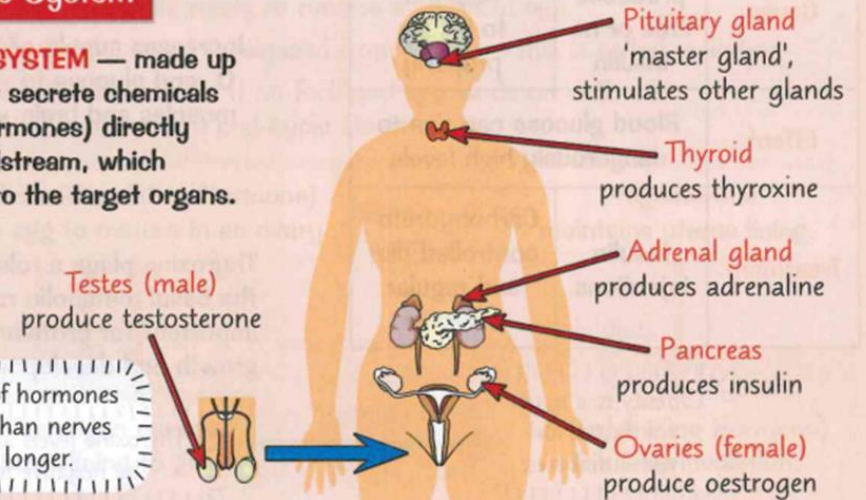
Rate of Photosynthesis

An increase in any of these four factors tends to increase the rate of photosynthesis:

1. Light intensity
2. Temperature
3. CO_2 concentration
4. Amount of chlorophyll

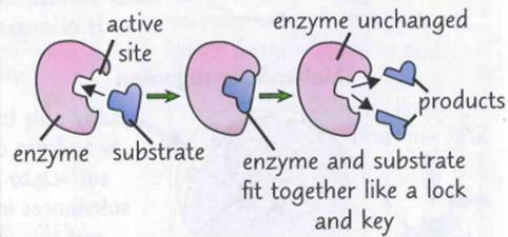Any of these factors can become the limiting factor (thing that stops photosynthesis happening any faster).

CO_2 concentration is limiting factor

other factors (e.g. temp or light intensity) are limiting

Rate vs % CO_2 level

temperature is limiting factor

high temperatures damage enzymes involved in photosynthesis

Rate vs Temperature (°C), 45
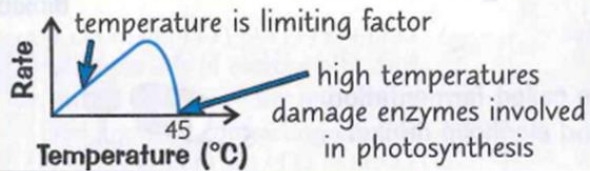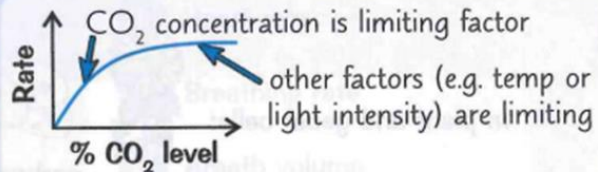
The Photosynthesis Reaction

PHOTOSYNTHESIS — an endothermic reaction in which energy is transferred to chloroplasts from the environment by light.

carbon dioxide + water → (light) glucose + oxygen

$6CO_2$ + $6H_2O$ → $C_6H_{12}O_6$ + $6O_2$
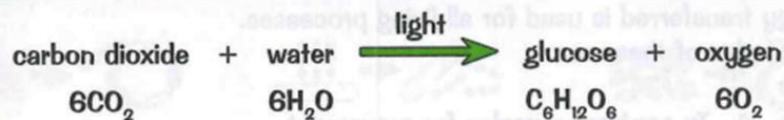
Enzymes

Enzymes catalyse (speed up) chemical reactions.
Each enzyme only catalyses one specific reaction because of the unique shape of its active site.

active site

enzyme unchanged

products

enzyme   substrate

enzyme and substrate fit together like a lock and key

High temperatures and high and low pHs change the shape of the active site so the enzyme no longer works.

Reaction rate vs Temp. — Optimum temp. — O °C ... 45 °C enzyme denatured

Reaction rate vs pH — Optimum pH
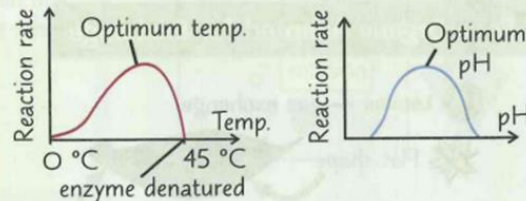
Respiration

Energy Transfer

RESPIRATION — the process of transferring energy from glucose. It's an exothermic reaction that goes on continuously in living cells.

The energy transferred is used for all living processes. Three examples of these are:

1. To contract muscles for movement.
2. To keep warm (in mammals and birds).
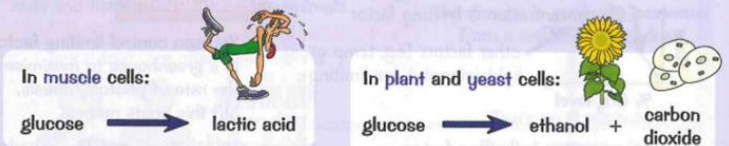3. To build up larger molecules from smaller ones.

Aerobic Respiration

AEROBIC RESPIRATION — respiration using oxygen.
It's the most efficient type of respiration.

glucose + oxygen → carbon dioxide + water

$C_6H_{12}O_6$ $6O_2$ $6CO_2$ $6H_2O$
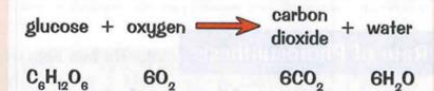
Anaerobic Respiration

ANAEROBIC RESPIRATION — respiration without oxygen.
It transfers much less energy than aerobic respiration because glucose isn't fully oxidised.
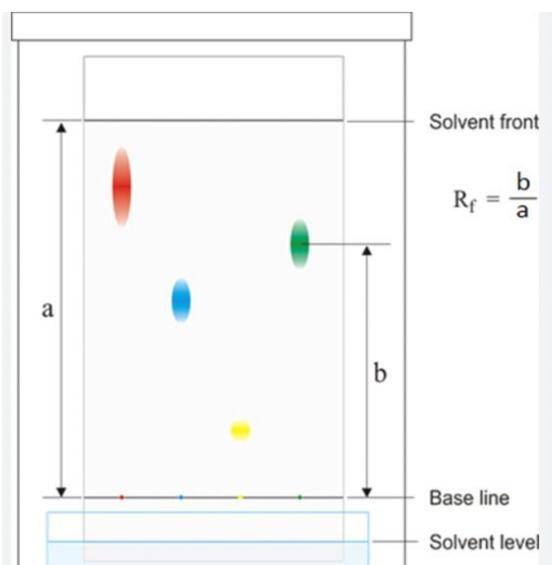
In muscle cells:

glucose → lactic acid

In plant and yeast cells:

glucose → ethanol + carbon dioxide

In yeast cells, anaerobic respiration is called fermentation. The process is used to make bread and alcoholic drinks.

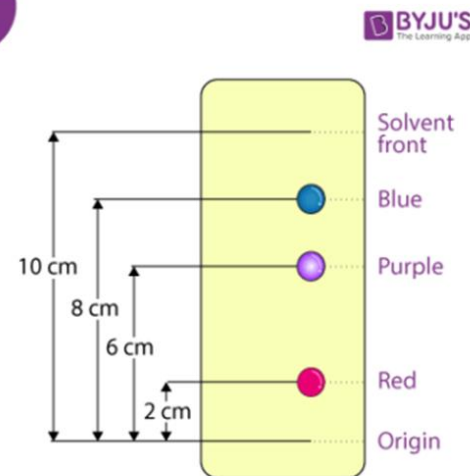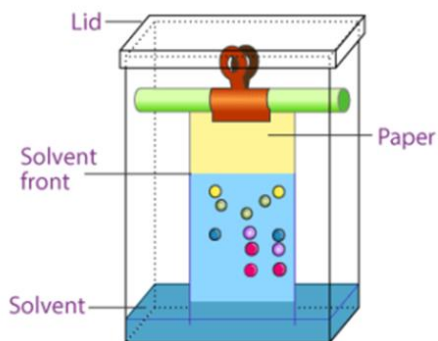| Food Test	Colour of reagent	Positive test result	Negative test result
Iodine for starch	orange–brown	blue–black	orange–brown (no change)
Benedict's for sugar	light blue	green to brick–red	light blue (no change)
Ethanol for lipid	colourless	cloudy emulsion	colourless (no change)
Biuret for protein	blue	lilac–purple	blue (no change)

Chromatography Method

1. draw a pencil line across the chromatography paper, 1 - 2 cm from the bottom
2. use a pipette or capillary tube to add small spots of each ink to the line on the paper
3. place the paper into a container with a suitable solvent in the bottom
4. allow the solvent to move through the paper, but remove the before it reaches the top
5. allow the chromatogram to dry, then measure the distance travelled by each spot and by the solvent
6. Calculate the Rf value using the formula below.

$$R_f = \frac{b}{a}$$

a
b
Solvent front
Base line
Solvent level

PARTITION CHROMATOGRAPHY

BYJU'S
The Learning App

Lid
Solvent front
Solvent
Paper

10 cm
8 cm
6 cm
2 cm

Solvent front
Blue
Purple
Red
Origin

Key Topic Vocabulary

Biology
- **Organism**: A living thing; can be unicellular or multicellular.
- **Photosynthesis**: The process by which green plants and some organisms use sunlight to synthesize nutrients from carbon dioxide and water.
- **Respiration**: The chemical process in cells where glucose is broken down to release energy.
- **Enzyme**: A protein that speeds up chemical reactions in living organisms.
- **Homeostasis**: The regulation of internal conditions to maintain a stable internal environment.

Chemistry
- **Atom**: The smallest unit of a chemical element, consisting of a nucleus and electrons.
- **Molecule**: Two or more atoms chemically bonded together.
- **Ionic Bond**: A chemical bond formed through the transfer of electrons between atoms.
- **Covalent Bond**: A bond formed when atoms share electrons.
- **Element**: A substance consisting of only one type of atom.
- **Compound**: A substance made up of two or more elements chemically combined.
- **Acid**: A substance that releases hydrogen ions (H^+) in solution.
- **Base**: A substance that accepts hydrogen ions and produces hydroxide ions (OH^-) in water.
- **pH Scale**: A measure of how acidic or basic a solution is.
- **Catalyst**: A substance that speeds up a chemical reaction without being consumed by it.

Technology – Hospitality and Catering

Y10 – Hospitality & Catering
Tier 3 Vocabulary:

Types of service in commercial and non-commercial provision
You need to be able to understand and know the different types of service within commercial and non-commercial provision. They are split into two main categories of food service and residential service.

Food service

The different types of food services in the catering sector are listed below. You should know the meaning of each one and be able to provide examples. For instance;

Table service
- Plate: the food is put on plates in the kitchen and served by waiting staff. Good portion control and food presentation consistent.
- Silver: a waiter will transfer food from a serving dish to the customer's plate using a silver spoon and fork at their table.
- Banquet: a range of foods suitable for large catered events such as weddings, parties, or award ceremonies.
- Family style: the food is placed on serving bowls on the customer's table for customers to share between them.
- Gueridon: is served from a trolley to the customer's table, the food is then cooked and/or finished and presented in front of the customer. Creates an atmosphere of sophistication and entertainment.

Counter service
- Cafeteria: all types of food and drink are shown on a long counter for customers to move along with a tray for them to choose what they want to eat.
- Fast food: the food and drink is displayed on a menu behind the counter, often with pictures. Quick, simple, and usually served with disposable packaging.
- Buffet: a range of foods served on a big serving table where customers walk up to collect their plate and help themselves to food and drink. The food can be hot or cold, and some items could be served by waiting staff.

Personal service
- Tray or trolley: the meals are served on trays from a trolley and customers sometimes order items in advance.
- Home delivery: the customer's order is made over the phone or online, and is then delivered by the business to their address.
- Takeaway: food that's cooked by the business onsite and then eaten elsewhere.

Residential service

Listed below are the different types of residential types of service in the hospitality and catering sector. You should know the different types of service offered in various hospitality provisions.

Rooms:
- single/ double/ king/ family
- suite (en-suite bath/ shower room, shared facilities).

Refreshments:
- breakfast/ lunch/ evening meal
- 24-hour room service/ restaurant available.

Leisure facilities:
- spa
- gym
- swimming pool.

Conference and function facilities:
- large rooms
- overhead projector and computer
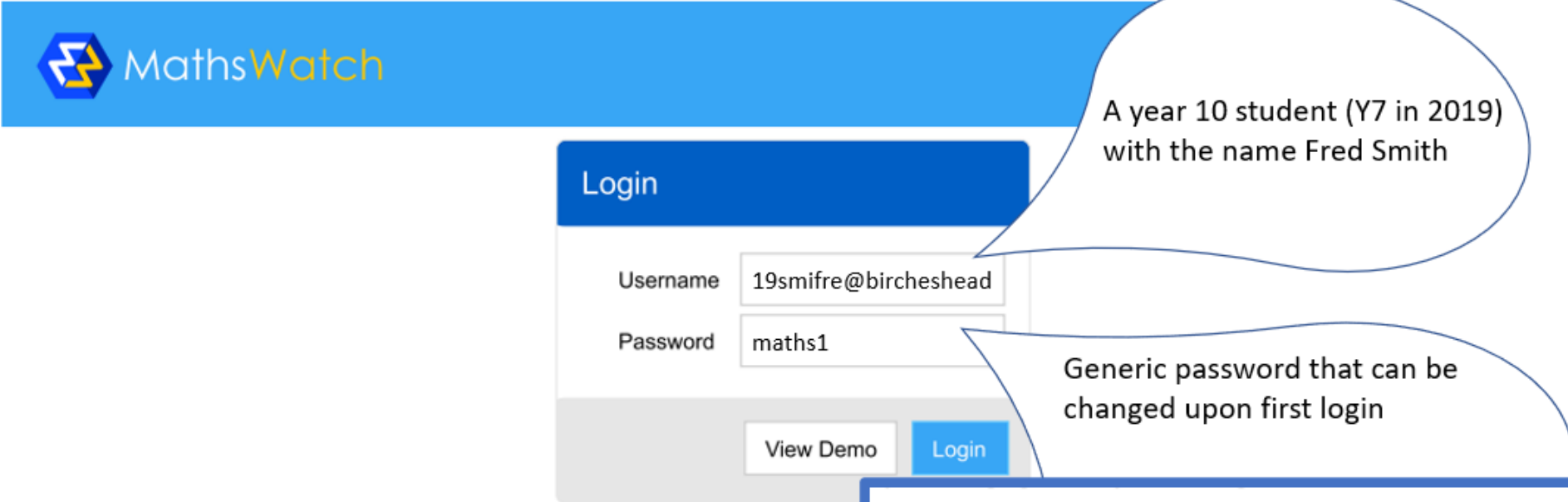- pens and paper provided
- refreshments available.

MathsWatch / SENECA / Kerboodle Instructions

MathsWatch

Please navigate to **vle.mathswatch.co.uk** using your preferred browser (we do recommend Google Chrome but IE, Safari and others should work just as well).

You will be presented with this login page:

A year 10 student (Y7 in 2019) with the name Fred Smith

Generic password that can be changed upon first login

To do that, click on **Firstname's account** _Logout_ _365 days until renewal_ in the top-right corner and then choose "*My Details*" from the drop-down menu.

Use the login details given by your teacher.

SENECA

Information for Students: How to Sign up to Seneca

Please use the information below to learn how to sign up to Seneca Learning. This is where all of your English homework will be set.
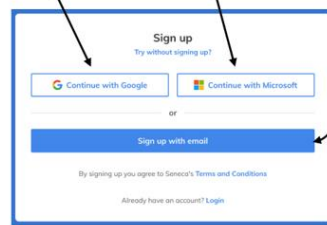
Step 1 – Go to a search engine (Google or Chrome) and go to senecalearning.com
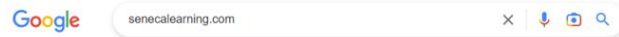
Step 2 – Find the **sign up** button (top right of the screen) and click on it.
- Note: registering an account with Seneca is completely **free**. You will not be asked to enter any payment details.

Step 3 – You can **sign up** with your Gmail account, your Microsoft account or with your email address. Click on the icon.

Step 5 – Click on the **student icon** and then type in the school name and select your year group.
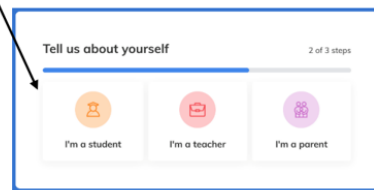
- You don't need a parent's email address, just **click the box** to say that you're over 13.

- Click the **Finish** sign up button.

Step 4 – Enter your details.

- If you have a Gmail or Microsoft account that you already use, just enter your details.
- If you do not have an email address, click **'Sign up with email.'**
- If you have clicked on the sign up with email button, you will be taken to a screen which looks like this:

If you do not have your own email address, use this formula:

firstname.surname@bircheshead.com
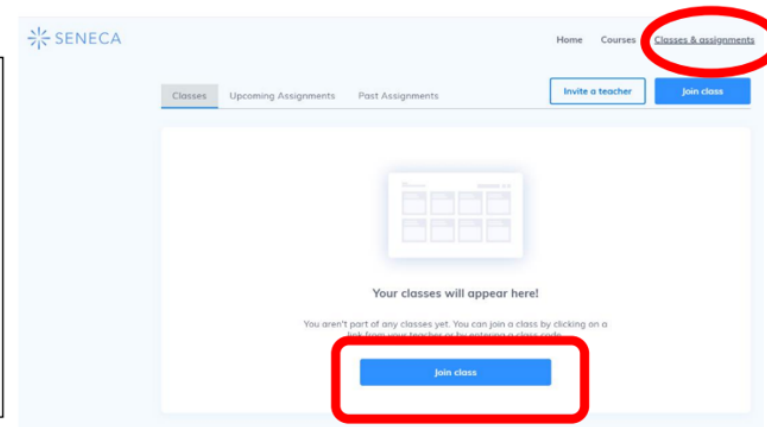
e.g, if your name is Charlie Walker, it would be:

charlie.walker@bircheshead.com

The password is **password**

Write your new email here:

@bircheshead.com

Step 6 – Join your class by clicking on the **Classes & Assignments** button at the top right. Then click on the **Join class** button. Enter your **class code** given to you by your English teacher.
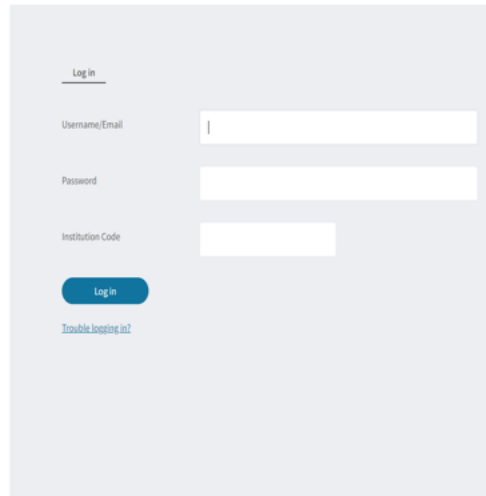
Write your class code here:

Now you'll be able to access any homework set by your English teacher. Make a copy of your login details in your planner.
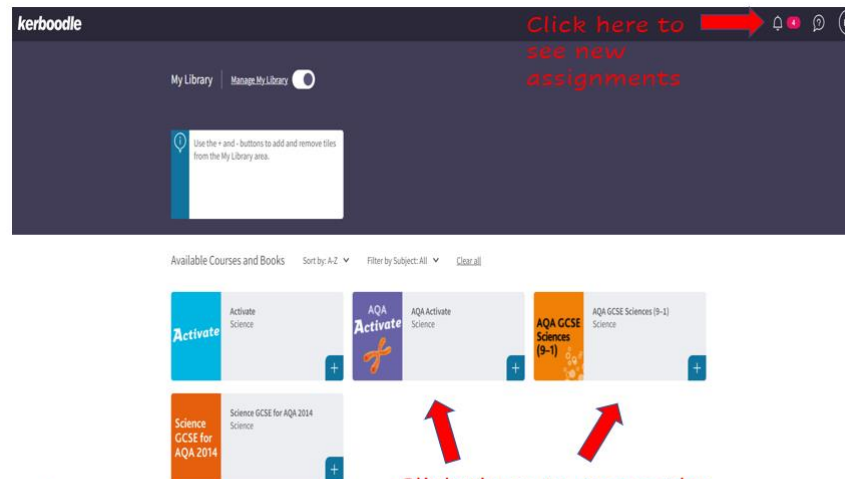
Kerboodle

- Go to www.Kerboodle.com
- It will look like this:

kerboodle

Lessons, Resources, Assessment, and Kerboodle Books

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Log in

Username/Email

Password

Institution Code

Log in

Trouble logging in?

- Your username is your first initial and your complete surname. E.g.
- Joe Bloggs would be jbloggs
- Your password is the same as your username the first time you login.
- The institution code is: ua3

- The first time you login you can change your password

kerboodle

Click here to see new assignments

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Use the + and - buttons to add and remove tiles from the My Library area.

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Activate Science | AQA Activate Science | AQA GCSE Sciences (9-1) Science
Science GCSE for AQA 2014 Science

Click these to access the digital textbooks. Activate is for KS3 AQA GCSE for KS4