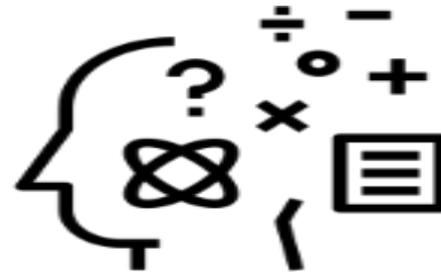


Year 10 Knowledge Organisers



Name:.....

Form:.....

Aspiration

Integrity

Respect

Hard work

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Knowledge Organisers at St. Anne's

What is a Knowledge Organiser?

- A Knowledge Organiser is a tool which sets out exactly what knowledge is vital in the curriculum.
- It clarifies for everyone – pupil, parent and teacher – exactly what is being taught.
- It is not expected to cover the entirety of everything you may possibly cover in a topic – just what is vital.
- A Knowledge Organiser is a distillation of knowledge, not a textbook or step by step revision guide.

Benefits of Knowledge Organisers:

- For pupils they are a revision of ALL the key information the teacher has decided is necessary for the topic.
- Parents know what their children are learning and are able to get involved in supporting their revision through quizzing and testing at home.

Pupils are expected to use their knowledge every day/evening. The expected amount of time to be taken to use your knowledge organiser effectively is 1 hour per day

The purpose of knowledge organiser at St. Anne's is very clear. They will:

- Support pupils to retain the key knowledge learned in lessons;
- Enable parents to support their children in their learning;
- Promote independence in learning;
- Promote a work ethic which will support success in further education;
- Support wider reading and study to support curriculum learning;
- Encourage practice of examined tasks and questions.

A Guide for Students and Parents

For each topic being taught in each subject a Knowledge Organiser has been produced outlining the key important knowledge required to fully understand a topic.

- Students should set aside one hour each day/evening dedicated to each subject they study. For example: Monday 1 hour study on Geography, Tuesday 1 hour study for English.
- Students will complete at least one side of A4 of Knowledge recall using the following method.
- Mini quizzes will be set each week by their teachers on students Microsoft 365 class team.



Look



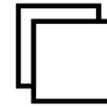
Read the specific important knowledge you need to learn for each subject.

Say



Read aloud the specific important knowledge you need to learn.

Cover



Cover your knowledge organiser.

Write



Write out everything you can remember from the specific part of the important knowledge you have been reading on a blank sheet of A4 paper.

Check



Check that you have all the content needed and it is correct. Any content that is missing or incorrect use another colour pen to illustrate the gaps in your knowledge that you have corrected.

Repeat



Fold you A4 sheet so that what you have just written is no longer visible. Repeat the steps above until you are 100% correct.



Vocabulary for section A

suggests
illustrates
demonstrates
foreshadows
indicates
exemplifies
This makes the reader...
- question
- understand
- imagine
- Feel



Band 4
Detailed,
perceptive

Band 3
Clear, relevant

Band 2
Some,
attempts

Band 1
Simple Limited

Question 2 (8 marks, 10 minutes)

How does the writer use language to...

Technical terminology

Adjectives	Adverbs
Alliteration	Emotive language
Hyperbole	Imagery
Metaphor	Noun phrases
Nouns	Onomatopoeia
Oxymoron	Personification
Pronouns	Sensory language
Simile	Subordinate/main clause
Terms of address	Triplets
Verbs	

Top Tips

- ✓ Only use the **section indicated**
- ✓ Stick to the **question** – highlight important words
- ✓ Select references (probably quotations) judiciously
- ✓ Remember **WHAT?** language is being used **WHERE?** is there evidence of it **WHY?** has it been used?
- ✓ Use technical terminology but always consider the **effect**
- ✓ Aim for three points / paragraphs

Question 3 (8 marks, 10 minutes)

How does the writer use structure to...

Technical terminology

Contrast	Chronological
Cyclical	Development
Dialogue	End
Flashback / forward	Focus shifts
Lists	Narrative
Opening	Order
Paragraphs	Patterns
Repetition	Tense

Top Tips

- ✓ Use the **whole extract**
- ✓ Select references judiciously
- ✓ Remember **WHAT?** structure is being used **WHERE?** is there evidence of it **WHY?** has it been used?
- ✓ Use technical terminology but always consider the **effect**
- ✓ Aim for three points / paragraphs

Question 1 (4 marks, 5 minutes)

Question

List four things...

Top Tips

- ✓ Only use the **lines indicated**
- ✓ Stick to the **question**
- ✓ Write in **full sentences**
- ✓ Include **quotations** where appropriate
- ✓ **Don't repeat**

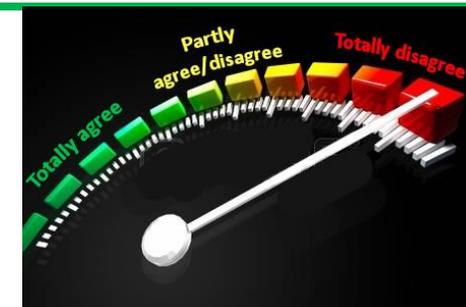
Question 4 (20 marks, 25 minutes)

To what extent do you agree...(statement given)

Top Tips

- ✓ Use the **section indicated** and stick to the **question** – highlight important words from the quote and the question
- ✓ Start with an **evaluative comment**: do you agree, partially agree or disagree with the given statement?
- ✓ Select references for **language and structure** points judiciously
- ✓ Remember **WHAT?** language and structure methods are being used **WHERE?** is there evidence of them **WHY?** have they been used?
- ✓ Use **technical terminology** (see above for language and structure terminology you could use) but always consider the **effect**.

I agree with the statement because..., The writer states...which creates the impression.... This reinforces the idea..., The reader feels..., I get the impression..., This seems to indicate...





Vocabulary for section A

To emphasise:

Above all
In particular
Especially
Significantly
Notably



To further explain an idea:

Although
However
Yet

Similarity:

Equally
Likewise
Similarly
In the same way

To contrast:

whereas
Alternatively
Otherwise
Contrastingly
On the other hand

Assessment Objectives

AO 1: What (do you understand what the text is saying?)

AO2: How (do you understand how the text is communicating its message?)

AO3: Why (why is the text as it is? Why did the writer choose for it to be that way?)



Question 2 (8 marks, 10 minutes) 2/3 points

Examiner is looking for:

- Understanding of the text- including inferred meaning
- Use of detailed evidence from the text
- Comparison of the content of the texts

Top Tips

- ✓ Highlight the theme that the question is asking you to focus on.
- ✓ Write a single sentence summary of the difference of the treatment of this theme between the two texts

The difference between the treatment of {theme} in these two sources is..

- ✓ Choose a quotation from source A and imagine it is the caption beneath an image showing the representation of the theme in that text.
- ✓ Describe what it shows
- ✓ Use the quotation as evidence
- ✓ Include what you can infer about the theme from the image *“from this we can infer”*.
- ✓ Repeat steps 3-6 for source B- using comparative connectives to indicate your understanding of the comparison

“In contrast source B...”

- ✓ Write a conclusion summing up the differences between the two texts.

“So in conclusion whilst we can see that source A....source B on the other hand...”

- ✓ NOTE: Do not say that the differences are due to different time periods

Question 3 (12 Marks, 15 minutes) 3/4 points

Examiner is looking for:

- Explanation of the effect on the reader
- Use of detailed evidence from the text
- Use of appropriate terminology

Top Tips

- ✓ Highlight the theme
- ✓ Mark the section of the text you have been asked to refer to
- ✓ Open with a comment on the effect of the use of language on the reader.

“The author of source ...presents [theme] in a way that makes the reader feel...”

- ✓ Now choose one language feature that contributes to that feeling. Explain how that linguistic feature relates to the feeling it creates.
- ✓ Now explain in detail the impact of this feature on the reader.

“The impact of this on the reader is....furthermore...so it could be said that....”

- ✓ Repeat this process for 3 different language features.

Question 4 (16 marks, 20minutes)

Examiner is looking for :

- Understanding of the author’s attitudes
- Description of the author’s methods
- Sophisticated comparison

Top Tips

- ✓ Highlight the theme in the Question
- ✓ Answer the question in a couple of sentences:
“Whilst both sources write aboutthe attitudes of the authors are evidently different in that the author of source A would seem to.....whilst the author of Source B, in contrast, seems to feel...”
- ✓ Choose one source and state what you think the author’s view point is on the theme.
- ✓ Now explain how you know this using evidence from the text (quotations). Explain how each of your pieces of evidence relates to your understanding of the author’s intentions

“From the use of [what have you observed? Use terminology if helpful] we can see that the author’s attitude is...”

- ✓ Now repeat step 3-4 for the other source- use comparative connectives to show how you think it relates to the first source
- ✓ Now write a conclusion in which you sum up your understanding of the differences in the authors’ attitudes and view points on the them.

I think if the authors of these two sources were to discuss [theme] the author of source A would feel that the author of source B was....because... The author of source B would think that the author of source B wasbecause...

- ✓ NOTE: Do not say that the differences are due to different time periods

Question 1 (4 marks, 5 minutes)

Question

Select four correct statement

Top Tips

- ✓ Only use the **lines indicated**
- ✓ Stick to the **question**
- ✓ Go through **every statement**
- ✓ Highlight on your extract the statements as you go along



KS4 English Literature— Paper 1, Section A: Macbeth Knowledge Organiser

Language for Learning:

- Ambition
- Loyalty
- Fate
- Supernatural
- Masculinity
- Femininity
- Tragedy
- Stage directions
- Soliloquy
- Hamartia
- Hubris
- Prophecy
- Paradox
- Tragic hero



Language to describe the characters:

Macbeth: *ambitious, courageous, deceitful, impulsive, ruthless, treasonous, tyrannical*

Lady Macbeth: *cunning, dominant, emasculating, malevolent, mutinous, powerful, scheming, vulnerable*

Banquo: *devoted, intuitive, loyal, trustworthy, virtuous*

Duncan: *benevolent, faithful, honest, naïve, sincere*

Macduff: *devout, fervent, heroic, merciless, patriotic, unwavering*

Witches: *corrupt, ignoble, manipulative, sinister, subversive, prophetic.*

Act 1	1. The witches meet on the heath and plan to meet Macbeth.	
	2. Macbeth and Banquo have fought and won a battle.	
	3. The witches meet Macbeth and Banquo. They tell Macbeth he will become Thane of Cawdor and King. Macbeth becomes Thane of Cawdor and begins believing in what the witches told him.	
	4. Macbeth sends Lady Macbeth a letter informing her of the witches' prophecy. Lady Macbeth convinces Macbeth to kill King Duncan.	
	5. Duncan arrives at Macbeth's castle	
	6. Macbeth's soliloquy. Macbeth tells Lady Macbeth he will not murder Duncan. She convinces him to go ahead with the murder.	
Act 2	1. Banquo and Macbeth talk briefly about the witches. Macbeth hallucinates a dagger in front of him.	
	2. Macbeth murders King Duncan. Macbeth's guilt is apparent. Lady Macbeth feels no guilt.	
	3. Duncan's dead body is discovered.	
	4. Macbeth becomes king.	
Act 3	1. Macbeth questions Banquo. He plans his murder.	
	2. Macbeth and Lady Macbeth's relationship begins changing.	
	3. Banquo is murdered but his son Fleance escapes.	
	4. Macbeth celebrates becoming King with a banquet. He begins to hallucinate Banquo's ghost in front of all the guests.	
	5. We meet Hecate (in charge of the witches)	
	6. Lennox shares his suspicions about Macbeth.	
Act 4	1. Macbeth returns to visit the witches as he becomes increasingly paranoid.	
	2. The witches share three prophecies as well as sharing a vision of Banquo.	
	3. Macbeth has Macduff's wife and children murdered.	
	4. Malcolm puts Macduff to the test.	
Act 5	1. Lady Macbeth begins to feel guilty and starts sleepwalking.	1. Malcolm prepares for battle
	2. Macbeth is fearless due to the prophecy of the witches.	2. Macduff kills Macbeth and beheads him.
	3. Great Birnam wood rises	3. Malcolm (the son of Duncan) is crowned king.
	4. Lady Macbeth commits suicide	



Key context



The Great Chain of Being

1. God is at the top of the Great Chain of Being
2. Kings were chosen by 'divine right.' God chose the king.
3. Males were above females.
4. People were expected to respect their position in the chain and, if they did so, would be rewarded in heaven.

King James I

1. King of Scotland from 1567 - 1625
2. King James was fascinated by the supernatural and wrote a book entitled 'Demonology' in 1597
3. King James's ancestor, Banquo, is made a hero in the play.
4. King James had survived an assassination attempt.

Witches and the supernatural

1. Christians believed witches to be the agents of Satan.
2. In 1604, it was a capital offence to be a witch. Association with a witch led to hanging, burning or drowning.
3. It was believed, witches could see into the future, change the weather and could call up the dead.

Role of women

1. Patriarchal society in which women were seen as inferior and had to be obedient to men. Lady Macbeth subverts this expectation.



KS4 English Literature – Paper 1, Section A: Macbeth Knowledge Organiser

Preparing you for GCSE Style Exam

Example exam question

Read this extract from Act 1:5 and then answer the question below
The following extract comes after Lady Macbeth has read Macbeth's letter about the witches prophecies

Lady Macbeth

The raven himself is hoarse
That croaks the fatal entrance of Duncan
Under my battlements. Come, you spirits
That tend on mortal thoughts, unsex me here,
And fill me from the crown to the toe top-full
Of direst cruelty. Make thick my blood.
Stop up the access and passage to remorse,
That no compunctious visitings of nature
Shake my fell purpose, nor keep peace between
The effect and it! Come to my woman's breasts,
And take my milk for gall, you murdering ministers,
Wherever in your sightless substances
You wait on nature's mischief. Come, thick night,
And pall thee in the dunnest smoke of hell,
That my keen knife see not the wound it makes,
Nor heaven peep through the blanket of the dark
To cry "Hold, hold!"

Your question will be based on a key extract from the play. Use at least two quotations from here.

Read the question and highlight the keywords. You must refer to the rest of the play too.

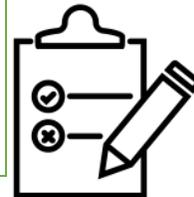
Starting with this speech, explore how Shakespeare presents ambition.

Write about
-How Shakespeare present ambition in the extract
-How Shakespeare presents ambition in the play as a whole

30 Marks
4 marks(A04)



You will always be given some information on where in the play the extract is from. Read this carefully.



Example response:

Through Macbeth, Shakespeare shows that being too ambitious can lead people to become morally corrupt. Shakespeare presents Lady Macbeth as being more ambitious than her husband and she is the one actually feeding Macbeth's ambition. Shakespeare shows how Lady Macbeth's desire for ambition leads her to become an evil manipulator. She commands the spirits to 'take [her] milk for gall.' Shakespeare uses the metaphor to highlight the extent of Lady Macbeth's ambition, as she is willing to get rid of her purity and femininity in exchange for poison. The noun 'milk' has connotations of innocence and femininity, which Lady Macbeth does not want to possess. Furthermore, the use of 'gall' emphasises her cruel and ruthless character. Through this portrayal of Lady Macbeth's ambitious character, Shakespeare shows that she subverts the expectation of a kind, nurturing and inferior Jacobean female.

Other example questions:

Starting with this speech, how does Shakespeare present violence?

Starting with this speech, how does Shakespeare present power?

Starting with this speech, how does Shakespeare present Macbeth as a hero?

Starting with this speech, how does Shakespeare present Lady Macbeth as powerful?

Starting with this speech, how does Shakespeare present evil?

You could be asked about the following key themes:



- Ambition
- Violence
- Power
- Good and Evil
- Masculinity and femininity
- Kingship
- Guilt
- Appearance and reality
- Supernatural

Or the following key characters:

Macbeth - Thane of Glamis, then Cawdor then King of Scotland.
Lady Macbeth - wife of Macbeth. Ambitious and manipulative.
Banquo - Macbeth's friend. Loyal and noble. Murdered by Macbeth
Macduff - Thane of Fife. Loyal to the king. Kills Macbeth.
King Duncan - King at the start of the play. Murdered by Macbeth
Witches - Tell Macbeth that he will be king. Tell Banquo his sons will be kings. Tell Macbeth to be aware of Macduff.

Assessment objectives you are assessed on:

- AO1** - Your understanding of the text. This can be shown in your point/ topic sentence and the quotations you choose to support your point.
- AO2** - Language and structural analysis of key quotations.
- AO3** - context (Jacobean era)
- AO4** - Spelling, punctuation and grammar.

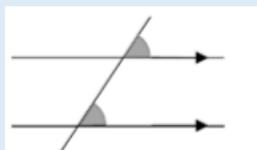


Language for Learning

Parallel
 Corresponding
 Alternate
 Co-Interior
 Vertically Opposite
 Congruent
 Conditions of congruence
 Similar
 Enlargement
 Scale Factor
 Linear Scale factor
 Area Scale Factor
 Volume Scale Factor
 Reciprocal

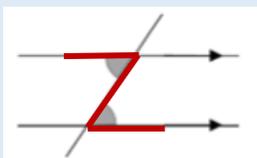
Angle Facts

Parallel lines give rise to these angle facts



Corresponding Angles are equal

Looks like an F or an upside down F



Alternate Angles are equal

Looks like a Z or a back to front Z



Co-Interior Angles sum to 180 degrees

Looks like an C or a back to front C

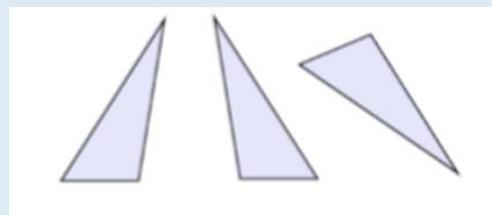


Vertically Opposite angles are equal

Congruence

Congruent triangles have exactly the same shape and size.

Their angles are the same and corresponding side lengths are the same.



Two triangles are congruent when one of the **conditions of congruence** is true

SSS (all three sides are equal)

SAS (two sides and an included angle are equal)

AAS (two angles and a corresponding side are equal)

RHS (right-angle, hypotenuse and one other side are equal)

Similarity

Shapes are similar when one is an enlargement of the other.



Similar shapes have **Scale Factors (k)**

If $k=2$ the shapes sides are twice as long
 If $k= \frac{1}{2}$ the shapes sides are half the size.

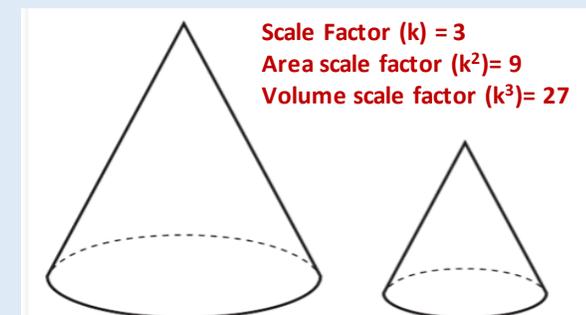
The scale factor A to B is the **reciprocal** of the scale factor B to A

Similarity in 3D Shapes

When the linear scale factor is **k**
 Lengths have a scale factor of **k**

Areas and surface areas have a scale factor of **k^2**

Volumes and capacities have a scale factor of **k^3**





KS4 Maths Higher Knowledge Organiser - Advanced Trigonometry

Note: Higher students should also visit Foundation – Angles and Triangles for this unit



Language for Learning

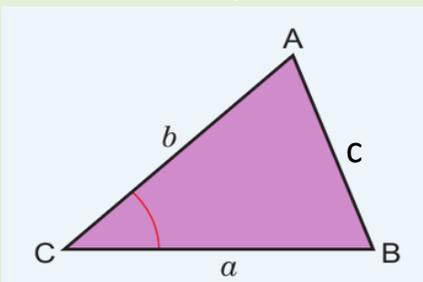
Right-Angled Triangle
Hypotenuse
Opposite
Adjacent
Pythagoras' Theorem
Sine
Cosine
Tangent
Sine Rule
Cosine Rule
Sine Wave
Cosine Wave
Asymptote

Introduction

Pythagoras' Theorem and SOHCAHTOA allow us to work with **ONLY** Right-Angled Triangles.

Advanced Trigonometry allows us to work with **ALL** triangles.

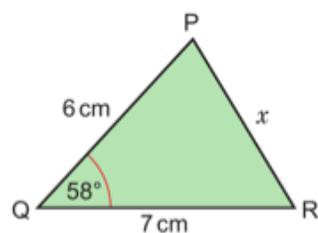
We label the triangle as such



Formulae

The **cosine rule** can be used in any triangle.

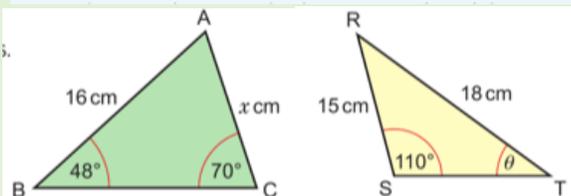
- $a^2 = b^2 + c^2 - 2bc \cos A$ Use this to calculate an unknown *side*.
- $\cos A = \frac{b^2 + c^2 - a^2}{2bc}$ Use this to calculate an unknown *angle*.



In this problem we are presented with information on **2 side lengths** and an **included angle**. We would use **Cosine Rule** to find the 3rd length.

The **sine rule** can be used in any triangle.

- $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ Use this to calculate an unknown *side*.
- $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$ Use this to calculate an unknown *angle*.



In the two problems above we are presented with information on two angles and their two opposite side lengths. Therefore, we would use the **Sine Rule**.

This is useful when we don't know the perpendicular height of the triangle.

Exact "Trig" Values

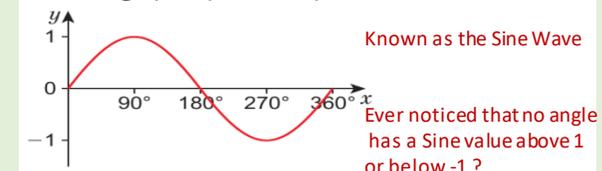
The Sine, Cosine and Tangent of some angles may be written exactly.

	30°	45°	60°	0	90°
sin	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	0	1
cos	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	1	0
tan	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	0	

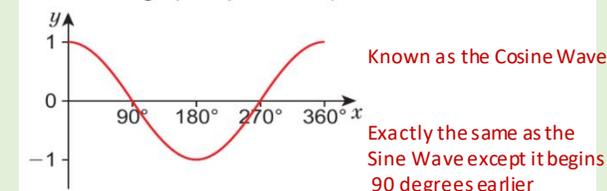
Trigonometric Graphs

The Sine, Cosine and Tangent functions can be plotted as graphs with angles on the horizontal axis and their Sin/Cos/Tan values on the vertical axis.

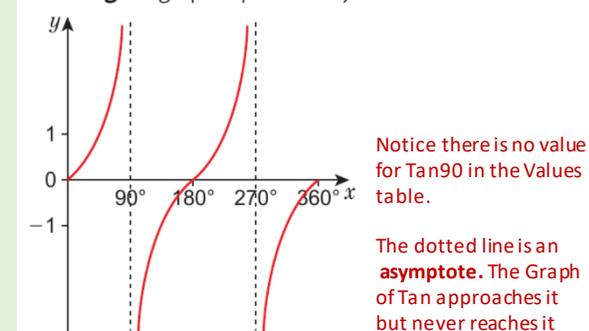
The **sine** graph repeats every 360° in both directions.



The **cosine** graph repeats every 360° in both directions.



The **tangent** graph repeats every 180° in both directions.





KS4 Maths Foundation Knowledge Organiser – Perimeter and Area

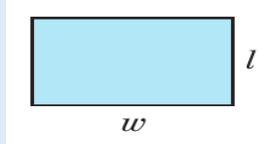


Language for Learning

- Rectangle
- Triangle
- Parallelogram
- Trapezium
- Diameter
- Centre
- Radius
- Sector
- Segment
- Tangent
- Chord
- Arc
- Circumference

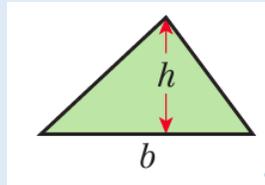
Area

Rectangle



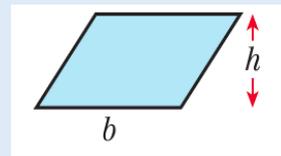
length x width

Triangle



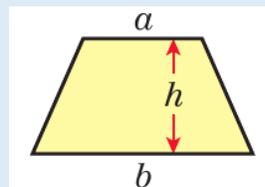
$\frac{\text{base} \times \text{height}}{2}$

Parallelogram



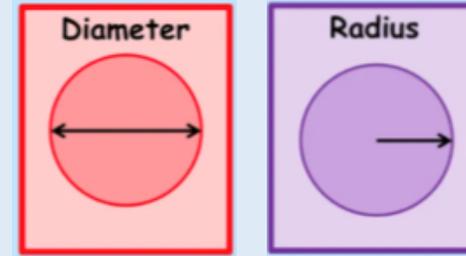
base x height

Trapezium



$\frac{(a + b)}{2} \times h$

Parts of a circle



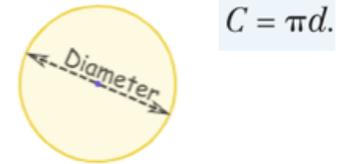
Important fact: the **diameter** must pass through the **centre** of the circle



Circumference

The distance around a circle (perimeter).

$$\text{Circumference} = \pi \times \text{Diameter}$$



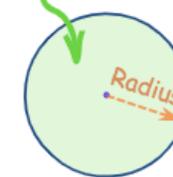
The diameter is twice the length of the radius so

You can also use the formula $C = 2\pi r$.

Area

The space inside a circle.

$$\text{Area} = \pi \times \text{radius}^2$$



$$A = \pi r^2$$

Circumference is measured in **cm or m**

Area is measured in **cm² or m²**

Pi (pronounced like "pie") is often written using the Greek Symbol π

It is approximately 3.14159265.... and can be found on a calculator.



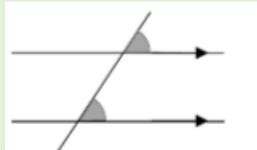
Language for Learning



Parallel
 Corresponding
 Alternate
 Co-interior
 Vertically Opposite
 Pythagoras
 Trigonometry
 Sine (Sin)
 Cosine (Cos)
 Tangent (Tan)
 Hypotenuse
 Adjacent
 Opposite

Angle Facts

Parallel lines give rise to these angle facts



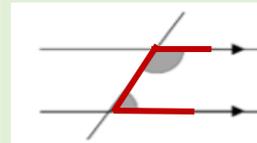
Corresponding Angles are equal

Looks like an F or an upside down F



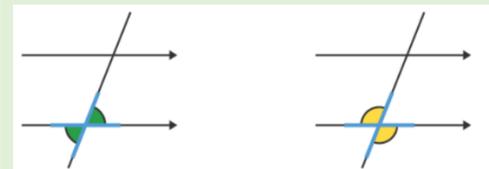
Alternate Angles are equal

Looks like a Z or a back to front Z



Co-Interior Angles sum to 180 degrees

Looks like an C or a back to front C



Vertically Opposite angles are equal

Pythagoras' Theorem

Lets you find the **length** of any side of a **right-angled triangle**, as long as you have the other two sides.

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

The Formula

Pythagorean Theorem

$a^2 + b^2 = c^2$
 $16 + 9 = 25$

$a^2 = 16$ $b^2 = 9$ $c^2 = 25$

Trigonometry

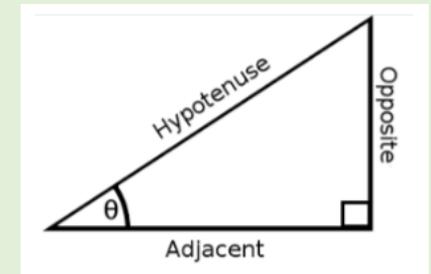
Lets you find either another **length or an angle** in a **right-angled triangle**.

SOH CAH TOA

Hypotenuse: Longest side—opposite the right angle.

Opposite: Opposite the angle given or that you are wanting to find.

Adjacent: Next to the angle given or that you are wanting to find.



In trigonometry there will **always be an angle** – it is either given to you or you are trying to find it.



KS4 Biology, Paper 2, Topic 8 Exchange and Transport in Animals Knowledge Organiser

Highlighted text = Triple Biology content

Language for Learning:

Aerobic respiration A type of respiration in which oxygen is used to release energy from substances such as glucose.

Anaerobic respiration A type of respiration that does not require oxygen

Alveolus A small pocket in the lungs in which gases are exchanged between the air and the blood. (Plural is alveoli.)

Capillary A tiny blood vessel with thin walls to allow for the transfer of substances between the blood and tissues.

Surface area : volume (SA : V) ratio The total amount of surface area of an object divided by its volume. The bigger the ratio, the more surface area something has per unit volume.

Artery A blood vessel that carries blood away from the heart.

Haemoglobin The red, iron-containing pigment found in red blood cells.

Plasma The straw-coloured liquid component of blood.

Platelet Cell fragments that are important in the clotting mechanism of the blood.

Red blood cell A biconcave disc containing haemoglobin that gives blood its red colour and carries oxygen around the body to the tissues. Also known as an erythrocyte.

Valve A structure that stops blood flowing in the wrong direction.

Vein A blood vessel that transports blood towards the heart.

White blood cell A type of blood cell that forms part of the body's defence system against disease. There are many different types of white blood cell, including lymphocytes and phagocytes.

Aorta The major artery leading away from the heart.

Atrium An upper chamber in the heart that receives blood from the veins. (Plural is atria.)

Cardiac output The volume of blood the heart can pump out in one minute. It is calculated using the equation:

$$\text{cardiac output} = \text{stroke volume} \times \text{heart rate}$$

Stroke volume The volume of blood the heart can pump out with each beat.

Ventricle A lower chamber in the heart that pumps blood out into the arteries

Fick's Law The relationship between the different variables that affect diffusion:

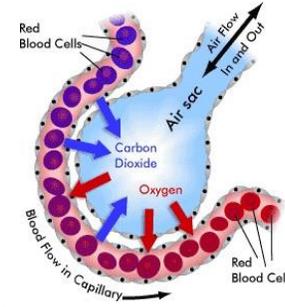
$$\text{Rate of diffusion} \propto \frac{\text{surface area} \times \text{concentration difference}}{\text{thickness of membrane}}$$



Gaseous exchange between the alveoli and the blood.

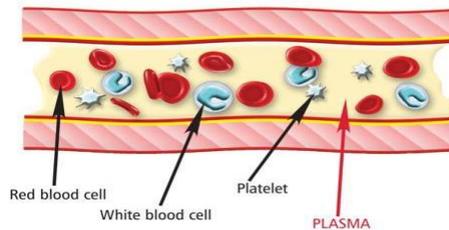
Adaptions

- Dense capillary network (good blood supply)
 - maintains the concentration gradient
- Capillary walls are only one cell thick
 - shorter diffusion path
- Larger surface area
 - increases the rate of gas exchange



Q. Emphysema is a condition which damages the alveoli. What do you think the symptoms of emphysema would be?

Components of the blood



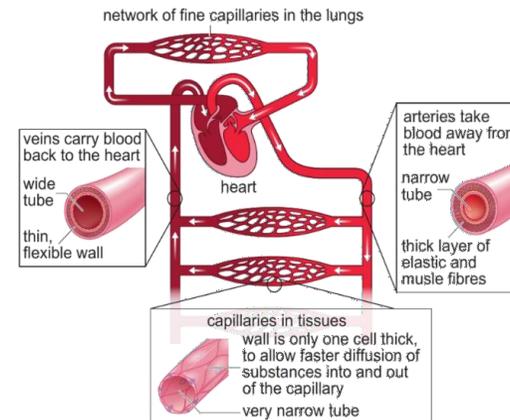
Q. What would a high white blood cell count indicate?

Q. How would a person be affected by a low red blood cell count?

Blood vessels

Q. Can you relate the structure of arteries, capillaries and veins to their functions?

Q. Why are valves present in veins and not arteries?



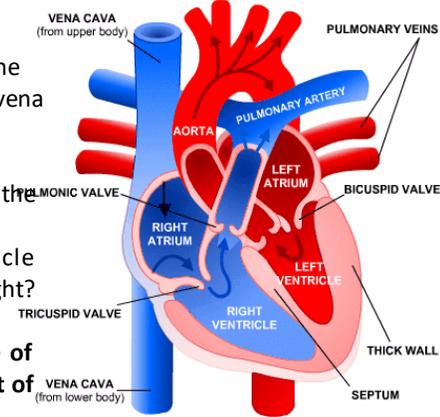
The heart

Q. Can you describe the flow of blood through the heart starting with the vena cava?

Q. How would a person be affected by a hole in the septum?

Q. Why is the left ventricle wall thicker than the right?

Remember the left side of the heart is on the right of the diagram!



Respiration is an exothermic chemical reaction which releases energy.

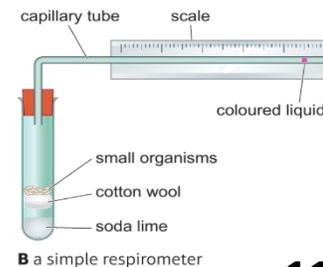
Aerobic	Anaerobic
Occurs continuously in all living cells in the presence of oxygen to release energy	Occurs during strenuous exercise when there is not enough oxygen
Takes place in mitochondria	Takes place in cytoplasm
Glucose + oxygen -> carbon dioxide + water	Glucose -> lactic acid

Core practical: Respirometer

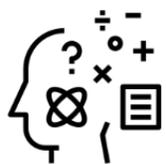
Independent variable: temperature

Dependent variable: distance travelled by the coloured liquid over time

Q. Will the coloured liquid move towards the organisms or away from them? Can you explain your answer?



a simple respirometer



KS4 Biology, Paper 2, Topic 8 Exchange and Transport in Animals

Highlighted text = Triple Biology content

Objectives		R	A	G
8.1	Describe the need to transport substances into and out of a range of organisms, including oxygen, carbon dioxide, water, dissolved food molecules, mineral ions and urea			
8.2	Explain the need for exchange surfaces and a transport system in multicellular organisms including the calculation of surface area : volume ratio			
8.3	Explain how alveoli are adapted for gas exchange by diffusion between air in the lungs and blood in capillaries			
8.4B	Describe the factors affecting the rate of diffusion, including surface area, concentration gradient and diffusion distance			
8.5B	Calculate the rate of diffusion using Fick's law: Rate of diffusion \propto $\frac{\text{surface area} \times \text{concentration difference}}{\text{thickness of membrane}}$			
8.6	Explain how the structure of the blood is related to its function: a red blood cells (erythrocytes) b white blood cells (phagocytes and lymphocytes) c plasma d platelets			
8.7	Explain how the structure of blood vessels is related to their function			
8.8	Explain how the structure of the heart and circulatory system is related to its function, including the role of the major blood vessels, the valves and the relative thickness of chamber walls			
8.9	Describe cellular respiration as an exothermic reaction which occurs continuously in living cells to release energy for metabolic processes, including aerobic and anaerobic respiration			
8.10	Compare the process of aerobic respiration with the process of anaerobic respiration			
8.11	<i>Core Practical: Investigate the rate of respiration in living organisms</i>			
8.12	Calculate heart rate, stroke volume and cardiac output, using the equation cardiac output = stroke volume \times heart rate			

Seneca Assignment	Score (%)
8.1.1 Diffusion	
8.1.2 Exchange surfaces	
8.2.1 Blood	
8.2.2 Blood Cells	
8.2.3 Blood Vessels	
8.2.4 Blood Vessels 2	
8.2.5 The Heart	
8.2.6 The Heart 2	
8.2.7 Double Circulation	
8.2.8 End of Topic Test - Circulatory System	
8.3.1 Respiration	
8.3.2 End of Topic Test – Respiration	



KS4 Chemistry Knowledge Organiser: CC10 | CC11 | CC12

Electrolysis | Obtaining and Using Metals | Reversible Reactions and Equilibria

Language for Learning:

Anion: Negatively charged ion.

Anode: Positive electrode.

Cathode: Negative electrode.

Cation: Positively charged ion

Displacement reaction: Where a more reactive element takes the place of a less reactive element in a compound.

Electrode: A rod made of a metal or graphite that carries the current into or out of the electrolyte.

Electrolysis: Energy transferred by a D.C current decomposes electrolytes.

Electrolyte: An ionic compound that is molten or dissolved in water.

Inert: An electrode that is unreactive, such as graphite or platinum.

Oxidation: Oxygen is added to a chemical substance; loss of electrons.

Reduction: Oxygen is lost by a chemical substance; gain of electrons.

Redox reaction: A reaction in which oxidation and reduction take place.

Extraction: A process in which a metal is obtained from its ore.

Native state: A metal that occurs uncombined with any other element.

Ore: A rock that contains a high concentration of a metal or metal compound.

Closed system: When substances cannot enter or leave an observed environment, e.g. a stoppered test tube.

Dynamic equilibrium: When the forwards and backwards reactions in a reversible chemical reaction are occurring at the same rate.

Endothermic: Energy from the surroundings is transferred to the products, e.g. photosynthesis.

Exothermic: Energy is transferred to the surroundings from the reactants, e.g. combustion.



CC10: Electrolysis



Using electricity to break down ionic substances. During electrolysis the positive ions travel to the negative electrode and the negative ions travel to the positive electrode, where they then turn back into atoms.



Ionic solids have to be **molten** or **dissolved in water** to allow the ions to move.



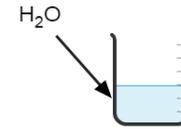
Opposites Attract
Cations move to Cathode
Anions move to Anode



Reactivity Series

potassium	most reactive	K
sodium		Na
calcium		Ca
magnesium		Mg
aluminium		Al
carbon		C
zinc		Zn
iron		Fe
tin		Sn
lead		Pb
hydrogen		H
copper		Cu
silver		Ag
gold		Au
platinum	least reactive	Pt

Water contains H^+ and OH^- ions. If you do electrolysis on water you get Hydrogen gas at the a node (from H^+ ions) and oxygen gas at the cathode (from OH^- ions)



Products of electrolysis

Some solutions (e.g. copper sulphate solution) contain 4 ions and there are some rules for working out which ions win at the electrode

Rules for competition at electrodes

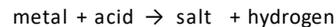
At the cathode – the least reactive metal will win

At the anode – the least complex ion will win

Halide (group 7) > Hydroxide (OH^-) > all other negative ions

CC11: Obtaining and Using Metals

Metals have different reactivity and are placed in a reactivity series of metals. The most reactive metals are at the top. Metals react with water and acid:



Most metals are extracted from metal ores. The method used to extract the metal from its ore depends on the reactivity of the metal.



Metals should be recycled at the end of their use. This uses less ore and saves energy.

Metals more reactive than carbon use **electrolysis**



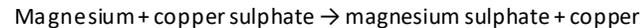
Metals less reactive than carbon are extracted by **heating with carbon**



Unreactive metals (e.g. gold) are found naturally



In a **displacement reaction** a more reactive metal steals the non-metal from a less reactive metal compound.



Life Cycle Assessment (LCA)

Stages involved:
Obtaining raw materials
Manufacture
Use
Disposal

Corrosion

In corrosion reactions metals gain oxygen to give the metal oxide. Metals are therefore oxidised

Metal extraction from ores

In metal extraction metal oxides lose oxygen and carbon gains oxygen. The metal is reduced and carbon is oxidised

CC12: Reversible Reactions and Equilibria

In some chemical reactions the products can recombine to make the reactants:

Reversible Reaction

If a **reversible reaction** takes place in a **closed system** a **dynamic equilibrium** is established.

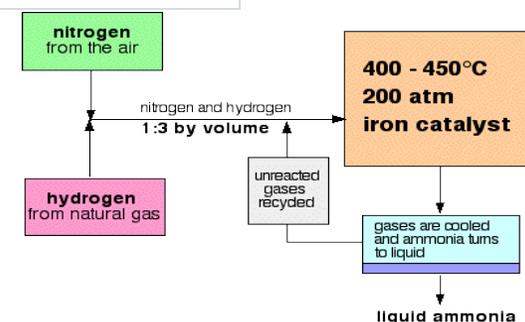
A reversible reaction that reaches equilibrium will have an equilibrium position. The position of the equilibrium determines how much products or reactants are made.

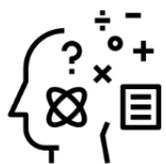
The position of the equilibrium is effected by the conditions that the reaction is carried out.

In the Haber Process the conditions are chosen to shift the position of the equilibrium to the Right Hand Side and make large amounts of product.

The conditions use for the reaction are
Temperature = 450°C
Pressure = 200 atmospheres
Catalyst = Iron catalyst

The Haber Process





Objective		R	A	G
3.22	Recall that electrolytes are ionic compounds in the molten state or dissolved in water			
3.23	Describe electrolysis as a process in which electrical energy, from a direct current supply, decomposes electrolytes			
3.24	Explain the movement of ions during electrolysis, in which: a positively charged cations migrate to the negatively charged cathode b negatively charged anions migrate to the positively charged anode			
3.25	Explain the formation of the products in the electrolysis, using inert electrodes, of some electrolytes, including: a copper chloride solution b sodium chloride solution c sodium sulfate solution d water acidified with sulfuric acid e molten lead bromide (demonstration)			
3.26	Predict the products of electrolysis of other binary, ionic compounds in the molten state			
3.27	Write half equations for reactions occurring at the anode and cathode in electrolysis			
3.28	Explain oxidation and reduction in terms of loss or gain of electrons			
3.29	Recall that reduction occurs at the cathode and that oxidation occurs at the anode in electrolysis reactions			
3.30	Explain the formation of the products in the electrolysis of copper sulfate solution, using copper electrodes, and how this electrolysis can be used to purify copper			
3.31	Core Practical: Investigate the electrolysis of copper sulfate solution with inert electrodes and copper electrodes			

Objective		R	A	G
4.1	Deduce the relative reactivity of some metals, by their reactions with water, acids and salt solutions			
4.2	Explain displacement reactions as redox reactions, in terms of gain or loss of electrons			
4.3	Explain the reactivity series of metals (potassium, sodium, calcium, magnesium, aluminium, (carbon), zinc, iron, (hydrogen), copper, silver, gold) in terms of the reactivity of the metals with water and dilute acids and that these reactions show the relative tendency of metal atoms to form cations			
4.4	Recall that: a most metals are extracted from ores found in the Earth's crust b unreactive metals are found in the Earth's crust as the uncombined elements			
4.5	Explain oxidation as the gain of oxygen and reduction as the loss of oxygen			
4.6	Recall that the extraction of metals involves reduction of ores			
4.7	Explain why the method used to extract a metal from its ore is related to its position in the reactivity series and the cost of the extraction process, illustrated by a heating with carbon (including iron) b electrolysis (including aluminium) (knowledge of the blast furnace is not required)			
4.8	Evaluate alternative biological methods of metal extraction (bacterial and phytoextraction)			
4.9	Explain how a metal's relative resistance to oxidation is related to its position in the reactivity series			
4.10	Evaluate the advantages of recycling metals, including economic implications and how recycling can preserve both the environment and the supply of valuable raw materials			
4.11	Describe that a life-cycle assessment for a product involves consideration of the effect on the environment of obtaining the raw materials, manufacturing the product, using the product and disposing of the product when it is no longer useful			
4.12	Evaluate data from a life cycle assessment of a product			

Objective	R	A	G	
4.13	Recall that chemical reactions are reversible, the use of the symbol \rightleftharpoons in equations and that the direction of some reversible reactions can be altered by changing the reaction conditions			
4.14	Explain what is meant by dynamic equilibrium			
4.15	Describe the formation of ammonia as a reversible reaction between nitrogen (extracted from the air) and hydrogen (obtained from natural gas) and that it can reach a dynamic equilibrium			
4.16	Recall the conditions for the Haber process as: a temperature 450 °C b pressure 200 atmospheres c iron catalyst			
4.17	Predict how the position of a dynamic equilibrium is affected by changes in: a temperature b pressure c concentration			

Seneca Assignment		(%)
3.2.1	Electrolysis	
3.2.2	Extracting metals	
3.2.3	Aqueous solutions	
3.2.4	Chemical changes	
3.2.5	Grade 9 Chemical Changes	
4.1.1	Redox reactions	
4.1.2	Displacement reactions	
4.1.3	Reactivity tests & metal extraction	
4.1.4	Metals in the environment	
4.1.5	Obtaining and using metals	
4.1.6	Grade 9 Obtaining & using metals	
4.2.1	Reversible reactions	
4.2.2	Equilibrium position	
4.2.3	Reversible Reactions	



KS4 Physics, Paper 6, Topic 11 Magnetism and Electromagnets Knowledge Organiser

Bold text = higher content
Highlighted text = Triple Physics content

Language for Learning:



Alternating current – current whose direction changes many times per second

Alternator

Core – the innermost part of something

Direct current – current whose direction does not change

Dynamo – rotating coils in a magnetic field which produce an electric current

Electromagnet – a magnet made using a coil of wire with electricity flowing through it

Electromagnetic induction – a process that creates a current in a wire when the wire is moved relative to a magnetic field, or when the magnetic field around it changes

Induced/Temporary Magnet – a piece of material that becomes a magnet because it is in the magnetic field of another magnet

Magnetic Field – the area around a magnet where it can affect magnetic materials or induce a current

Magnetic Flux Density – a way of describing the strength of a magnetic field. It is measured in tesla (T)

Magnetic Material – a material, such as iron, that is attracted to a magnet

Motor Effect – the force experienced by a wire carrying a current that is placed in a magnetic field

National Grid – the system of wires and transformers that distributes electricity around the country

Permanent Magnet – a magnet that is always magnetic such as a bar magnet

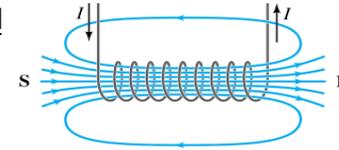
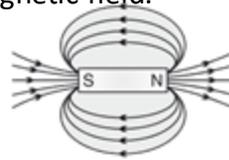
Plotting Compass – a small compass used to find the shape of a magnetic field

Solenoid – a coil of wire with electricity flowing in it. Also called an electromagnet

Tesla (T) – the unit for magnetic flux density, also given as Newtons per ampere meter (N/Am)

Transformer – a device that can change the voltage of an electricity supply

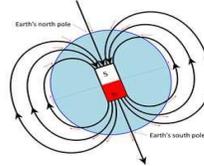
Magnetic field around a bar magnet. Solenoid
The closer the field lines, the stronger the magnetic field.



Q:How do we increase the strength of the magnetic field created by the solenoid?

The Earth's Magnetic Field

The Earth's liquid iron core produces a magnetic field. It's south magnetic pole is actually at the Earth's geographical North pole. So the north pole of a compass points North.

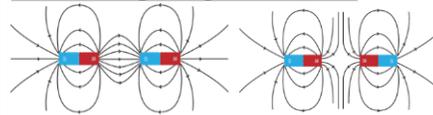


Transformer

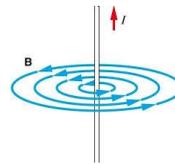
Step-up transformers increase the potential difference by having more turns in the secondary coil. Step-down transformers decrease the potential difference by having less turns on the secondary coil.



Interacting Magnetic fields



Magnetic field around a current carrying wire.



Q:How do we find the direction of the magnetic field around a current carrying wire?



The motor effect

A current carrying wire or coil can exert a force on a permanent magnet.

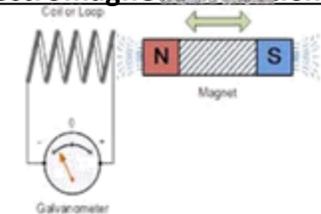
$$F = B \times I \times l$$

Force (N) = magnetic flux density (T) x current x length

Direction of force is found using Fleming's Left Hand Rule;



Electromagnetic Induction



Q:How does the primary coil induce the current in the secondary coil?

National Grid

- High voltage during transmission to save energy
- Low voltage distributed to consumers for safety

Q:How can the induced potential difference be increased?

Application

DC electric motors, loudspeakers, alternators, dynamos, microphones





KS4 Physics, Paper 6, Topic 11 Magnetism and Electromagnets

Objectives		R	A	G
12.1	Recall that unlike magnetic poles attract and like magnetic poles repel			
12.2	Describe the uses of permanent and temporary magnetic materials including cobalt, steel, iron and nickel			
12.3	Explain the difference between permanent and induced magnets			
12.4	Describe the shape and direction of the magnetic field around bar magnets and for a uniform field, and relate the strength of the field to the concentration of lines			
12.5	Describe the use of plotting compasses to show the shape and direction of the field of a magnet and the Earth's magnetic field			
12.6	Explain how the behaviour of a magnetic compass is related to evidence that the core of the Earth must be magnetic			
12.7	Describe how to show that a current can create a magnetic effect around a long straight conductor, describing the shape of the magnetic field produced and relating the direction of the magnetic field to the direction of the current			
12.8	Recall that the strength of the field depends on the size of the current and the distance from the long straight conductor			
12.9	Explain how inside a solenoid (an example of an electromagnet) the fields from individual coils add together to form a very strong almost uniform field along the centre of the solenoid or cancel to give a weaker field outside the solenoid			
12.10	Recall that a current carrying conductor placed near a magnet experiences a force and that an equal and opposite force acts on the magnet			
12.11	Explain that magnetic forces are due to interactions between magnetic fields			
12.12	Recall and use Fleming's left-hand rule to represent the relative directions of the force, the current and the magnetic field for cases where they are mutually perpendicular			
12.13	Use the equation: force on a conductor at right angles to a magnetic field carrying a current (newton, N) = magnetic flux density (tesla, T or newton per ampere metre, N/A m) × current (ampere, A) × length (metre, m)			
12.14P	Explain how the force on a conductor in a magnetic field is used to cause rotation in electric motors			

Seneca Assignment	Score (%)
12.1.1 Magnetic Materials	
12.1.2 Magnetic Fields	
12.2.1 Electromagnetism	
12.2.2 The Motor Effect	
12.2.3 Current Carrying Wire	
12.2.4 Current Carrying Wire 2	
12.2.5 End of Topic Test - Magnetism	



KS4 Spanish GLOBAL ISSUES— Theme 2, Unit 7.1: Environment— El medio ambiente

Key ideas: Protegiendo el medio ambiente [Protecting the environment]

Lo que hago para cuidar el medio ambiente...

[What I do to take care of the environment...]



Lo que debería hacer...

[What I should do...]

Ahorrar agua/energía	To save water/energy
Reciclar latas/papel/vidrio	To recycle cans/paper/glass
Separar la basura	To separate the rubbish/waste
Usar el transporte público	To use public transport
Reutilizar bolsas de plástico	To reuse plastic bags
Ducharse rápido	To have a quick shower
Usar pilas recargables	To use rechargeable batteries
Utilizar bombillas de bajo consumo	To use low energy bulbs
Cerrar los grifos	To turn the taps off
Apagar la luz	To turn off the light
Desconectar aparatos eléctricos	To switch off electronic devices
Ir al colegio a pie	To go to school on foot
Compartir el coche	To share the car
Evitar usar productos químicos	To avoid using chemical products

Key verb for environment

Ahorrar	To save (water, energy)
Amenazar	To threaten
Apagar	To turn/switch off
Ayudar	To help
Causar	To cause
Cortar	To cut, cut off
Cuidar	To take care
Contaminar	To pollute
Evitar	To avoid
Luchar	To fight
Parar/Frenar	To put a stop to
Proteger	To protect
Reciclar	To recycle
Reduce	To reduce
Reutilizar	To reuse
Salvar	To save (the planet)
Separar	To separate
Usar	To use



Exam style questions



¿Qué haces para proteger el medio ambiente?

What do you do to protect the environment?

¿Qué hace tu familia para proteger el medio ambiente?

What does your family do to protect the environment?

¿Es importante reciclar?

Is it important to recycle?

¿Qué haces en el colegio para ayudar al medio ambiente?

What do you do at school to help the environment?

¿Crees que el tráfico es un problema en tu ciudad?

Do you think the traffic is a problem in your town/city?

¿Hay mucha contaminación en tu ciudad?

Is there a lot of pollution in your town/city?

¿Qué problemas medio ambientales hay en tu región/país?

What environmental issues are there in your region/country?

Menciona algo que hayas hecho recientemente para proteger el medio ambiente.

Mention something you have recently done to protect the environment.

¿Qué problemas medio ambientales te parecen más graves?

Which environmental issues are the most serious to you?

¿Qué se debe hacer en el futuro a nivel mundial para salvar el planeta?

What should be done worldwide to save the planet?

¿Cómo será el medio ambiente del planeta dentro de cuarenta años?

What will the environment of the planet be like in forty years time?

Key terms: Problemas medioambientales [Environmental problems]

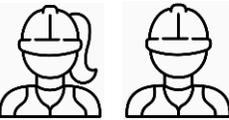
El agujero en la capa de ozono	Ozone layer		
El efecto invernadero	Greenhouse effect		
Calentamiento global	Global warming		
Contaminación atmosférica	Air pollution	Tala masiva de los bosques	Cutting down forests
Cambio climático	Climate change	Derretimiento de los hielos	Melting ice caps
La naturaleza	Nature	El tráfico	Traffic
La deforestación	Deforestation	Atascos	Traffic jams
Inundaciones	Floods/Flooding	Lluvia ácida	Acid rain
Huracanes	Hurricanes	Deforestación	Deforestation
Sequías	Droughts	El agujero de la capa de ozono	Ozone layer hole
Incendios forestales	Forest fires	La extinción de los animales	Animal extinction
Las mareas negras	Oil slick	Contaminación de los ríos	River pollution
La flora y fauna	The flora and fauna	Contaminación del agua	Water pollution





KS4 Spanish GLOBAL ISSUES— Theme 2, Unit 7.1: Environment

SENTENCE BUILDER: Protegiendo el medio ambiente [Protecting the environment]

Pienso que [I think that]	puedo [I can]	ahorrar [save (water, energy)]	agua así que me ducho en vez de bañarme [water so I have a shower instead of a bath]	
			agua así que siempre cierro los grifos [water so I always turn the taps off] energía así que me pongo un jersey en vez de poner la calefacción [energy so I put a jumper on instead of turning the heating on] energía así que solo pongo el lavaplatos cuando está lleno [energy so I only put the dishwasher on when it is full]	
Creo que [I think that]	podría [I could]	apagar [turn/switch off]	la luz cuando salgo de mi cuarto [the light when I leave my room]	para ayudar a proteger el planeta [to help to protect the planet]
			los aparatos eléctricos que no uso [the electronic devises that I don't use] uso el transporte público [I use public transport]	
Opino que [I think that]	debo [I must]	evitar [avoid]	el uso de combustibles fósiles así que [the use of fossil fuels so]	para salvar/proteger el planeta [to save/protect the planet]
			voy al colegio a pie [I go to school on foot] voy en bici [I ride a bike] comparto el coche [I share the car]	
A mi modo de ver [In my view]	tengo que [I have to]	evitar [avoid]	el uso de botellas de plástico [the use of plastic bottles]	para cuidar el medio ambiente [to take care of the environment]
			el uso de botellas de plástico [the use of plastic bottles]	
En mi opinión [In my opinion]	hay que [you have to]	evitar [avoid]	las latas, el papel, el cartón, el plástico y el vidrio [tins/cans, paper, cardboard, plastic and glass]	para cuidar la naturaleza [to take care of the nature]
			las latas, el papel, el cartón, el plástico y el vidrio [tins/cans, paper, cardboard, plastic and glass]	
Diría que [I would say that]	es necesario [it's necessary to]	reciclar [recycle]	las bolsas de plástico [plastic bags]	para no contaminar más [to not contaminate/pollute more]
			las bolsas de plástico [plastic bags]	
	es esencial [it's essential to]	reutilizar [reuse]	la basura en mi casa y en el colegio [rubbish/waste in my house and the school]	
			la basura en mi casa y en el colegio [rubbish/waste in my house and the school]	
		separar [separate]		

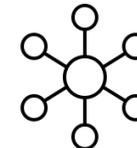
Connectives to add more sentences

y
[and]

además
[furthermore]

también
[also]

por un lado... por otro lado
[on the one hand... on the other hand]



Key verbs

All to be followed by an infinitive

quiero	I want
puedo	I can
puedes	You can
se puede	One can
podría	I could
podríamos	We could
debo	I must
se debe	We must
se debería	We should
debemos	We must
tengo que	I have to
tenemos que	We have to
hay que	You have to
trato de	I try to
es necesario	It's necessary to
es esencial	It's essential to
solía	I used to





KS4 History Knowledge Organiser: Elizabethan England c.1568-1603 Topic 1: Elizabeth's court and Parliament

Language for Learning

Inherit	Catholic
Treason	Protestant
Privy Council	Puritan
Secretary of State	Taxation
Patronage	Parliament
Succession	Lord Lieutenants
Heir	Royal Court
Rebellion	



1533	Elizabeth born to Anne Boleyn
1558	Crowned Queen of England following the death of her sister Mary
1569	The Northern Rebellion
1571	The Ridolfi Plot
1586	The Babington Plot
1587	Mary Queen of Scots executed
1588	The Spanish Armada
1601	Essex's rebellion
1603	Elizabeth dies

Who had the power in Elizabethan England?

Parliament



House of Lords – Lords, bishops and members of the nobility.
House of Commons – “Common” people, but wealthy and educated. Less powerful than today, but had influence over tax and passed laws. The queen decided when to call them and how much to listen.

Privy Council



Usually 12 men who took responsibility for the day to day running of the country and were her main advisors. Elizabeth chose who was a member, so picked men of power and influence to avoid rebellion. They dealt with issues including religious, military, foreign affairs and the queen's security. They rarely agreed, but if they did it was hard for Elizabeth to refuse. It was led by the Secretary of State

Justices of Peace



Also known as JP's. Each country had several to keep order. They were selected from local gentry and their job was to enforce the laws passed by parliament. They could send a person to prison, but more than one had to agree to the death penalty. They swore to treat the rich and poor equally.

The Royal Court



Around 1000 nobles, government official, ladies in waiting, servants and advisors who surrounded Elizabeth. It was a centre of political power, trends and fashions. The Privy Council was a key part of the court. Elizabeth could ensure loyalty through patronage- giving titles, places and rewards

Lord Lieutenants



Appointed by the queen to be responsible for an area of the country. They solved disputes and collected taxes. If a militia was needed to fight for the queen it was their job to raise it. Many of them were also Lord Lieutenants. It could lead to great power and influence.

Elizabeth's Problems

Mary Queen of Scots

Until Elizabeth had an heir, Mary was the next heir to the throne of England. She was Elizabeth's cousin, catholic but exiled from Scotland in 1568. While she was a threat to Elizabeth and the subject of potential plots to replace Elizabeth.

Succession

A successful monarch produces heirs but for them to be legitimate Elizabeth would have to marry. In 1562 Elizabeth nearly died of smallpox. This drew attention to the marriage and succession question. Parliament were worried about what would happen if Elizabeth died without an heir. Who should she marry?

Taxation

During Elizabeth's reign there was a time of great poverty. This made it difficult to collect the taxes she needed to run the country. New taxes would be unpopular and she had to consider how dangerous it could be for her as a new monarch.

Ireland

Elizabeth considered herself to be the Queen of Ireland. Many of the Irish disagreed and in 1559 there was the first of several revolts in Northern Ireland. She spent thousands and sent many of her best soldiers to deal with this but without success.

Foreign Policy

France and Spain were both Catholic, had the support of the Pope and wanted influence over England. They saw Protestant England as a threat. King Phillip of Spain had ruled England when he was married to Mary Tudor. The Netherlands was a Protestant population in conflict with Catholic Spain. Should she help them? These were issues she would have to deal with.

Religion

Her father Henry had broken from Rome to get a divorce. Her brother Edward had been a strict Protestant. Her sister Mary (bloody) executed 300 Protestants for refusing to change their faith. She was a Protestant who wanted to settle the religious problems but had to deal with Catholics, Protestants and Puritans.

Key Dates

Key Individuals



Queen Elizabeth I - single female ruler at a time when men had the power. Was very intelligent but had a difficult childhood



William Cecil - Secretary of State twice. Most trusted advisor. Key role in developing the Poor Laws and new religious policies.



Francis Walsingham - Secretary of State and one of her closest advisors until his death in 1573. Elizabeth's spymaster with 'eyes and ears' everywhere. Played role in the execution of Mary, Queen of Scots.



GCSE History Knowledge Organiser - Elizabethan England c.1568-1603

Topic 2: Life in Elizabethan times

Language for Learning
Exploration
Theatre
Poverty
Beggars
Vagabond
Privateers
Circumnavigation
Voyages
Enclosure



Poverty

Not everyone in Elizabethan England benefited from the increased prosperity and trade. A growing population, bad harvests and enclosure created a very poor group at the bottom of society. The poor were categorised into; the deserving poor who could not help themselves, the undeserving poor who were untrustworthy and did not want honest work, the idle poor seen as lazy and the able poor. Beggars could be whipped, branded, have a hole burned in the ear or hung. Towns such as York, Ipswich and Norwich had their own ways to deal with the poor. The 1601 Poor Law taxed the wealthy to care and support the old, sick and vulnerable. The fit and healthy were to be given work. The idle could be whipped and placed in the house of correction.

Voyages of exploration

Several European countries were investigating the new world, bringing home treasures and claiming land. Drake circumnavigated the globe from 1577-80. He and his cousin John Hawkins made one of the first voyages to sell slaves. New technology such as the astrolabe helped make this possible. Spain was often the target of the privateers.

Key Dates	The Theatre was opened by James Burbage
1576	
1587	The Rose opened
1588	The Spanish Armada
1599	The Globe opened



John Hawkins was a key figure at court. He was responsible for building up the Royal Navy. Was also involved in the slave trade and introduced tobacco



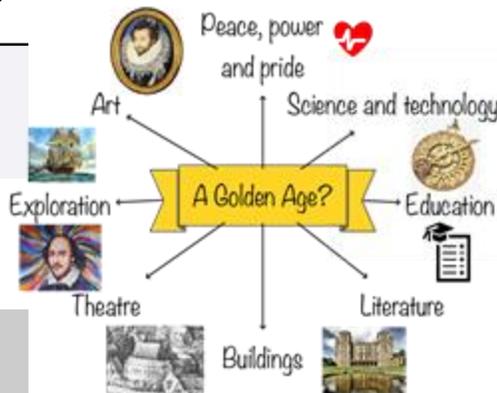
Sir Walter Raleigh very loyal to Elizabeth and a favorite. Attempted to establish a colony in North America. He was banished for 5 years (secret marriage)



William Shakespeare was the most celebrated playwright of all time with 38 plays. Wrote for the Lord Chamberlain's Men



Francis Drake was an English hero but the Spanish called him a pirate. Led the defeat of the Armada. Was a privateer.



Topic 3: Troubles at home and abroad

Language for Learning	
Protestant	Plot
Catholic	Prophecy
Puritan	Treason
Recusancy	Fireship
Excommunicate	Armada
Jesuits	Calais
Missionary	Propaganda
Martyr	Gravelines

1567	Mary Queen of Scots comes to England.
1569	The Northern Rebellion
1571	The Ridolfi Plot..
1581	Treason to attend Catholic mass. Recusancy fines increased.
1583	The Throckmorton Plot.
1585	Treason to have a Catholic priest in your home. Act against Jesuits and Seminary Priests
1586	The Babington Plot. Mary Queen of Scots put on trial.
8/2/1587	Mary Queen of Scots executed.
1588	The Spanish Armada
1593	Statute of Confinement - Catholics could not travel more than five miles from home.



Mary, Queen of Scots –heir to the throne of England



Pope Pius V - excommunicated Elizabeth

Religion

Elizabeth was Protestant but inherited the upheaval of the Reformation and her family's changes. As a practical monarch she tried to bring compromise with her 'religious settlement'. This included priests could marry, book of common prayer and she declared herself 'governor'. Catholics - recusancy fines were low and many kept their own beliefs. Following the Papal Bull which excommunicated Elizabeth, Catholics were encouraged to rise against her. There was a change in policy clamping down on them - see dates. Jesuits were sent to convert Protestants back to Catholic including Edmund Campion who was executed becoming a martyr. Puritans - strict protestants were disappointed in the settlement. Their prophesings criticised Elizabeth's church and in 1583 they were banned from unlicensed preaching and imposed recusancy fines.

Mary Queen of Scots

Mary was Queen of Scotland from 8 days old but was brought up in France. She returned to Scotland in 1560 but was very unpopular. It was suggested that she had been involved in the murder of her second husband Lord Darnley. In 1567 she fled from Scotland and her son James became King of Scotland. Mary was placed under house arrest and was moved around for 19 years. Mary was the legitimate heir to the English throne and was Catholic, this made her a threat to the childless Elizabeth. Several plots planned to put her on the throne but during the Babington Plot Walsingham found evidence that she knew of the plot. Mary was put on trial in October 1586 and found guilty of treason even though she argued that as she was not English and a Queen they had no right. On 8/2/1587 Mary was executed at Fotheringhay Castle making her a martyr.

Conflict with Spain

Causes - Philip had been married to Mary Tudor and wanted England to be Catholic again. He had asked Elizabeth to marry him but she married England. Elizabeth authorised the sea dogs to steal Spanish Silver. Elizabeth also sent troops to help with William of Orange's rebellion against Spain. Advances in naval warfare meant ships were faster and more maneuverable. They had more powerful weapons and more accurate navigation with the astrolabe. The Armada failed because of poor tactics by the Spanish including having a seasick man in charge - Duke Medina Sidonia. The English tactics including the use of fire ships. This was then followed by terrible storms that wrecked many of the Spanish ships on their way back round Scotland.



Sir Francis Walsingham - Secretary of State and Spymaster



Sir Francis Walsingham - Secretary of State and Spymaster



King Philip of Spain



King Philip of Spain



KS4 History: Elizabethan England c.1568-1603

Write an account... 8 marks

- Write an account of the problems Elizabeth faced in the first ten years of her reign.
- Write an account of the career of the Earl of Essex.
- Write an account of a rebellion you have studied that took place in Elizabeth's reign.

Explain... 8 marks

- Explain what was important about exploration and trade in Elizabethan England.
- Explain what was important about the voyages of discovery in the reign of Elizabeth I.
- Explain what was important about the navy for Elizabethan England.

How convincing is interpretation A about... 8 marks

How convincing is Interpretation A about the threats to Queen Elizabeth I? Explain your answer using Interpretation A and your contextual knowledge.

Interpretation A - An assessment of the threats to Queen Elizabeth from *The Life and Times of Elizabeth I*, by Neville Williams (1972)

There were other plots against Elizabeth's life in later years. However, the revelations of the Ridolfi conspiracy, coming so soon after the Northern Rebellion, alarmed her the most. That her own cousin, the Duke of Norfolk, should have plotted her downfall was the cruellest blow she had yet suffered.



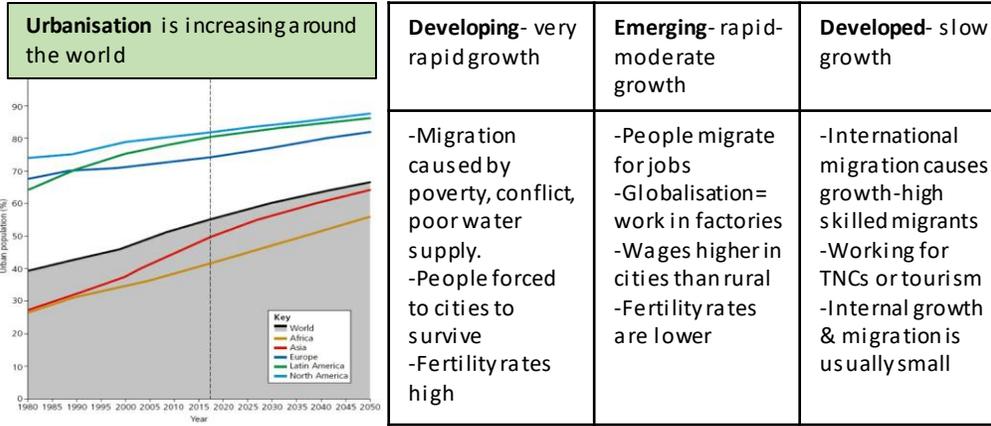
Language for Learning:



- Urbanisation
- Megacities
- Population
- Rural-urban migration
- Social/Economic
- Developing world
- Emerging world
- Developed world
- Formal/Informal employment
- Suburbanisation
- De-industrialisation
- Counter-urbanisation
- Regeneration
- Wealth/Poverty
- Top-down/Bottom-up strategy
- Alpha city
- Urban primacy
- Metropolitan area

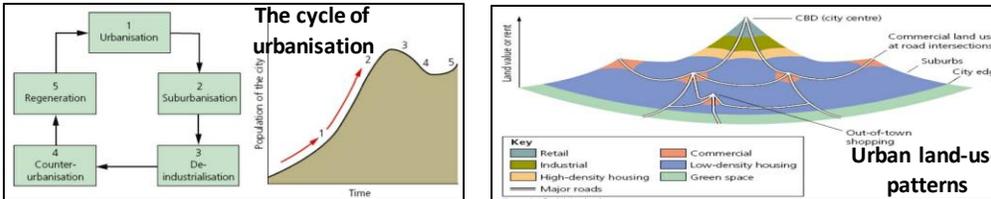
- Urban core
- Rural periphery
- Migration
- Ageing population
- Primary sector
- Secondary sector
- Tertiary sector
- Quaternary sector
- Globalisation
- Trade
- Foreign Direct Investment (FDI)
- Decentralisation
- Repopulation
- Rebranding
- Sustainability
- Greenfield/Brownfield site

Topic 3: Challenges of an urbanizing world



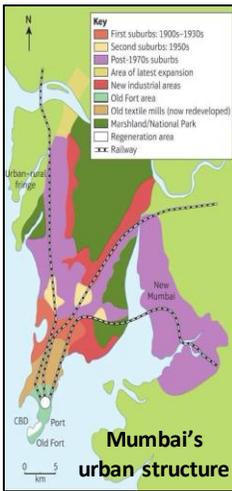
Developing- very rapid growth	Emerging- rapid-moderate growth	Developed- slow growth
-Migration caused by poverty, conflict, poor water supply. -People forced to cities to survive -Fertility rates high	-People migrate for jobs -Globalisation= work in factories -Wages higher in cities than rural -Fertility rates are lower	-International migration causes growth-high skilled migrants -Working for TNCs or tourism -Internal growth & migration is usually small

Urban economies: As cities become developed, their economies become more formal. In a developed city, the only informale employment is illegal.



Topic 3: Challenges of an urbanizing world case study- Mumbai

Located on the west coast, Mumbai is **India's biggest city**, with a population of 12.5 million people!



Why has Mumbai grown so rapidly?	Push factors	Pull factors
-Rates of natural increase -National/international migration	-Rural poverty -No jobs/services	-Many city jobs -Good education

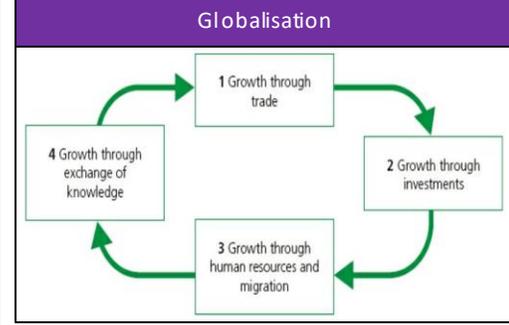
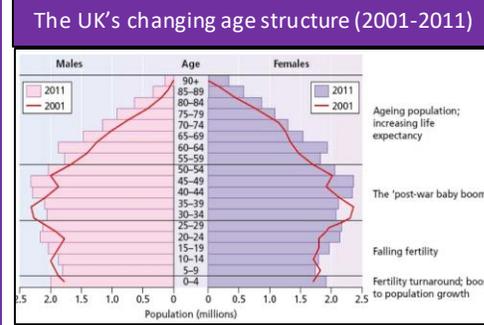
Opportunities and challenges of living in Mumbai

Opportunities	Challenges
-Boom in low skilled service sector jobs -Dharavi has 5000 small businesses -Access to services and education	-Waste disposal/pollution issues -Traffic congestion -Slum housing/poor job conditions

How can strategies improve Mumbai?

Top down strategies-	Bottom up strategies-
Vision Mumbai Government & FDI- plan to improve rail links (longer/more trains)- increase water treatment plants- knock down slum housing & build apartment blocks	LSS Charity Control leprosy/TB in slums. Build 3 schools with 300 children. Improve child nutrition. Disease education. Improving household sanitation

Topic 5: The UK's evolving human landscape



Globalisation is a multi-strand process of change about the growth of the global economy as shown above. The unrestricted circulation of money in the form of FDI is also important. As with trade, investment flows are two-way. The role of TNCs increases with globalisation.

Topic 5: The UK's evolving human landscape case study- Salford



- Salford is a city located in the NW of England.
- Its growth has been attributed to its proximity to major motorways (M62), Manchester and links to the sea (The Ship Canal).
- Salford has a **CBD, inner city, inner and outer suburbs**, which contain the typical features of each sector.
- Salford's urban area is interconnected with its rural surroundings.

	How does migration affect Salford?	Salford's decline
Factor	Broughton	Ellenbrook
Ethnicity	Most diverse	Least diverse
Income	Below average	Double the av
Housing	54% social	2% social
Services	Elderley -9%	Elderley +33%
Health	-6 life expect	+1 life expect

Making Salford sustainable

Transport	Housing	Energy use	Employment	Green space	Waste
-Cycle to work scheme. -Green wheels electric car club.	-New estates to provide 40% affordable housing overall.	-Solar panels on council buildings -LED street lights -River Irwell to provide HEP	-Council promotes carbon neutral businesses -Skills/training for residents	-Communal orchards -Communal gardens -Park protection	-Food recycling plan -15 new recycling facilities



Data questions
(up to 4 marks)

The trend shows....I know this because.....
I can also see a data pattern between..... I know this because (compare 2 pieces of data)



Knowledge questions
(up to 4 marks)

Point, evidence, explain.
e.g.
The world is becoming more urbanised because..... Another reason is.....
A world city can influence decisions because.....World cities also have.....
The government has introduced policies such as..... This has helped cities in the north to.....
Globalisation has been positive for the UK because.....However, it also brings negatives such as.....



Application questions
(up to 8 marks)

State an example of a place, make a point, use evidence, explain. Use contrasting evidence then conclude.
e.g.
Mumbai has seen huge growth in the suburbs because.....This has caused.....Another problem caused by suburbanisation is.....
However, increasing suburbs does mean that..... Suburbanisation can also add.....
In conclusion, I think that the effects of suburbanisation are..... because.....



Case study questions
(up to 12 marks)

Name the place, point, evidence (data/problems/projects/charities) explain (multiple contrasting points) and conclude with an assessing or evaluation statement.
e.g.
Mumbai, located on the western coast of India has many social and environmental impacts caused by population growth. Some negative examples of these are..... This causes.....
However, there have also been positive impacts, such as..... This has caused.....
In conclusion I believe that rapid population has caused significant/very little damage to people and the environment because.....



Mark schemes for 8 and 12 mark questions



Level	Marks	Descriptor
0		No acceptable response
1	1-3	Demonstrates isolated elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
2	4-6	Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)
3	7-8	Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3)

Level	Marks	Descriptor
0		No acceptable response
1	1-4	Demonstrates isolated elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
2	5-8	Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
3	9-12	Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Topic 3: Questions to consider



1. Explain why the world is becoming more urbanised.
2. Explain how cities can influence decision making.
3. Explain the cycle of urbanisation.
4. For a named megacity, assess the social and environmental impacts of its rapid population growth. [12 marks]
5. For a named megacity, assess the reasons for variations in the quality of life for its people. [12 marks]

Topic 5: Questions to consider



1. Explain how the UK employment has changed since 1980.
2. Explain how a developed city changed from the CBD to the suburbs.
3. Explain the impact of globalisation on economies.
4. Evaluate the success of strategies aimed at making urban living more sustainable. [8 marks]
5. Assess the impacts of the cost of living on different groups of people, for a UK city you have studied. [8 marks]



Language for Learning:

- Creation
- Ex nihilo
- Big Bang Theory
- Fundamentalist
- Liberal
- Evolution
- Awe and wonder
- Stewardship
- Dominion
- Natural resources
- Non-renewable energy
- Renewable Energy
- Sustainable development
- Deforestation
- Pollution
- Animal rights
- Vegetarian
- Vegan
- Animal experimentation



Cross curricular links:

1. Paper 1: Christian beliefs.
2. Paper 2: topic D (peace and conflict)
3. Geography
4. Science



Scientific theories:



1. **The Big Bang Theory:** the universe started with an incredibly small, hot dense singularity which has expanded to become the cosmos we know today. As the universe continued to expand and cool, the matter became stars and galaxies.
2. **The Theory of Evolution:** As the universe cooled, conditions became right for the beginning of life. Single-celled creatures appeared which, over a long period of time, evolved or changed into other species. These species were able to survive in a variety of environments. Humans started to evolve from other land animals about 2.5 million years ago; they developed into humans with the same anatomy as us about 200 000 years ago.



How do beliefs influence actions?



Christians who believe in Creation believe that it is valuable and often have a sense of awe and wonder regarding the earth.

Stewardship suggests that we must take care of the world and the animals in it; Christians who follow this would be interested in **sustainable development** to create **renewable energy sources** such as solar energy. They may become **vegans/vegetarians** to support animal rights and will disagree with animal experimentation, even if it's for medical reasons.

Dominion allows us to use creation to benefit humanity so may allow for some use of **non-renewable energy** sources such as coal. It would also allow for eating meat and animal experimentation for **medical purposes** only. These would be allowed only if we ensure that no unnecessary pain is caused.



Christian beliefs: Creation, dominion and stewardship.

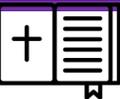


Christians believe that the world was designed by God; they believe that God created all things **'ex nihilo'** or from nothing. Genesis gives the account of creation and shows that God created the heavens, earth, vegetation, animals and humans in 6 days and rested on the 7th. **Fundamentalist** Christians believe that Creation occurred exactly as it says in the Bible whilst **Liberal** Christians believe that these accounts are more symbolic.

Genesis tells Christians that humans were created last and **'in God's image'** which gives them a special place in creation. Christians believe that this separates us from animals and can be used to justify a belief in **dominion**. This belief is the idea that humanity are superior to the rest of creation so can control it and use it to benefit us. Other Christians believe in **stewardship**; this means that God has given us the task of taking care of his creation and we must make sure that it flourishes.



What does the Bible say?



'In the beginning God created the heavens and the earth.'

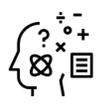
'God blessed them and said to them...fill the earth and subdue it. Rule over...every living creature that moves on the ground.'

'The earth is the LORD'S and everything in it.'

'Everything that lives and moves will be food for you.'

'The righteous care for the needs of their animals...'

'So God created mankind in his own image, male and female He created them.'



KS4 Religious Studies – Paper 2, Topic B: Religion and Life – origins of the universe and how we treat it.

Preparing you for GCSE Style Exam

Question 1: Multiple Choice 1 mark: you will be asked to pick the correct answer out of 4 possible answers.

Question 2: Short response 2 marks: a brief response showing simple knowledge eg Give TWO ways Christians can look after the environment.

Question 3: Contrasting and similar attitudes to ethical issues 4 marks.
Will sometimes ask you to talk specifically about contemporary British society.

Some Christians believe...
This is because...
Other Christians believe...
This is because

1 MARK: One belief with simple explanation

2 MARKS: One belief supported by ONE DEVELOPED explanation

3 MARKS: One belief supported by ONE DEVELOPED explanation and One CONTRASTING belief with a simple explanation.

4 MARKS: Two beliefs, each supported by a DEVELOPED explanation.

Question 4: Contrasting and similar attitudes to ethical issues 5 marks.
YOU MUST INCLUDE A BIBLE QUOTE/CHRISTIAN TEACHING!!!

Some Christians believe...
The Bible states
This suggests that...
Other Christians believe...
This is because

1 MARK: One belief with simple explanation

2 MARKS: One belief supported by ONE DEVELOPED explanation

3 MARKS: One belief supported by ONE DEVELOPED explanation and a specific religious teaching.

4 MARKS: Two beliefs, each supported by a DEVELOPED explanation.

5 MARKS: Two beliefs, each supported by a DEVELOPED explanation and a specific religious teaching.

Question 5: Analysis and evaluation of different beliefs regarding a statement:
12 Marks
EG – ‘Taking care of the earth is the most important action for religious people.’

You must include at least 4 points of view:

For: who agrees with the statement (religious or non-religious)

Against: who disagrees with the statement (religious or non-religious)

Religious: what do Christians think/do? What does the Bible say?

My Own : Do you agree with the statement?

1-3 MARKS: ONE point of view supported by simple reasons.

4-6 MARKS: ONE point of view supported by developed reasons.

OR

DIFFERENT points of view supported by simple reasons, knowledge and understanding

7-9 MARKS: DIFFERENT points of view supported by developed reasons, knowledge and understanding.

10-12 MARKS: WELL ARGUED response. **DIFFERENT** points of view supported by developed reasons, knowledge understanding and logical chains of reasoning leading to judgement(s).



BTEC Sport Knowledge Organiser - Unit 1 Key Content Breakdown

Physical Fitness

1. Body Composition
2. Aerobic Endurance
3. Speed (A/P/E)
4. Strength
5. Flexibility
6. Muscular Endurance

Skill - related Fitness

1. Co-ordination
2. Reaction time
3. Agility
4. Balance
5. Power

Basic Principles of Training

Frequency – How often do you train? (How many times a week)

Intensity – How hard do you train? (Heart rate/pyramid, BPM, BORG scale RPE)

Time – How long you train for? (min. 30mins)

Type – What type of training method (e.g. weight, circuit, interval...?)

Additional Principles of Training

Specificity – Training specific to the individual needs of athlete (Sport, Position, Component of fitness, Age, Gender)

Progressive Overload – Make training gradually harder so body gradually improves and adapts (increase **FREQUENCY/INTENSITY/TIME**)

Adaptation – Body adapts in response to training (gets stronger because of strength training etc.)

Rest and Recovery – Allows adaptation to take place and to avoid injuries due to fatigue/tiredness (have rest days)

Reversibility – Body will reverse back if training is stopped for a prolonged time (illness, injury, and motivation)

Variation – Training must be varied to avoid boredom (use different **TYPEs** of training methods)

Individual Differences / Needs – Programme's must be designed to meet the need of the individual

Component of Fitness	Fitness testing	
Body Composition	Body Mass Index (BMI) $\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$	
	Bioelectrical Impedance Analysis (BIA) BIA = electricity passed through body from WRIST to ANKLE . Measures the resistance from muscle and fat	
	Sum of Skinfolds Use CALLIPERS to measure skin on the SUPRAILIAC, TRICEP, THIGH (Female) CHEST, ABDOMINAL and THIGH (Male). Add measurements together and use to the JACKSON-POLLOCK nomogram (4 lines)	
Aerobic Endurance	Multi Stage Fitness Test (MST/Bleep test) Cones/Lines 20m apart, run in-between to the sound of a beep. Gradually gets faster . Longer you can keep up the higher the level	
	Forestry Step Test Step/ bench- 33cm for females and 40cm for males. Step up and down for 5 minutes to a metronome. (90bpm/22.5steps a min). Record pulse and compare to table	
Speed	35m sprint test Sprint from one line/cone to another in a straight line over 35m. Record time and compare to normative data	
Strength	Grip dynamometer 3 attempts, squeeze grip dynamometer measure result in Kg or KgW.	
Flexibility	Sit and Reach test Both feet against the sit and reach box , reach forward and measure result in centimetres	
Muscular Endurance	Sit up and press up tests Count how many sit ups or press-ups completed in 1 minute	
Agility	Illinois Agility test Cones set up as in the image, lie face down on the floor at the start, measure time to complete course in seconds	
Power	Vertical Jump test Stand side on to wall reach up and mark/set the measure. Standing jump as high as possible touching wall. Measure between two marks/measures	

Importance of Testing to performers and Coaches

Baseline data for performance monitoring, Information to aid programme design and structure, Results used for SMARTER goal setting

Requirements for administration of each fitness test

Pre-test procedures (consent/calibration of equipment), Confirmation of test requirements, Accurate measurement, Normative comparative data to interpret results, All safety requirements are taken, Reliability / Validity / Practicality

Interpretation of test results
 Comparison / Analysis / Evaluation / Conclusion / Justification / Action

Exercise Intensity and how it can be determined

Max H/R = 220 - Age

BORG Scale – Rating of Perceived Exertion (RPE)

RPE x 10 = HR (BPM)
 I.E. Level 13 x 10 = 130bpm
 'Somewhat hard'

7	very, very light
8	
9	very light
10	
11	fairly light
12	
13	somewhat hard
14	
15	hard
16	
17	very hard
18	
19	very, very hard
20	

Used to measure performance when precise equipment is not available.

Training Zones



Aerobic – 60-85%

This is the recommended training zone for cardiovascular health and fitness.

When working above this level your body will produce energy anaerobically without the presence of Oxygen for short periods of time.

Types of Training

Aerobic Endurance

Continuous
 30 mins moderate
Fartlek
 Varied intensity
Interval
 Work 60% VO2 Max / Rest periods
Circuit
 Aerobic work Stations

Speed

Hollow Sprints
 Yo – Yo Sprint/Jog
Acceleration Sprint
 Gradual increase of speed
Interval
 Sprint / Recovery

Strength

Circuit
 Strength stations
Free Weights
 Intensity = %1RM
 S/E = 50/60% x 20
 E/S = 75% x 12
 M/S = 90% x 6
Phyometrics
 Jump Training – Max force applied to the muscle.

Flexibility

Static
 Active / Passive stretching
Ballistic
 Fast, jerky movements with muscle lengthening and shortening.
PNF
 Partner assisted stretch deactivating stretch reflex in muscle.

BTEC Sport - UNIT 1 EXAM PREPARATION AND STRUCTURE

Page 1 Summary

The exam content has been summarised and key concepts linked through colour coding on page 1 of the knowledge organiser. You should now be able to link some of the key concepts of the Unit 1 exam more easily. The key concepts can be broken down into the following areas; **Components of Fitness**, **Fitness testing**, **Principles of Training**, **Types of Training**. This page will breakdown how you can expect to see the paper structured and give guidance as to the skills and knowledge required to access all aspects of the paper effectively.

Key exam terminology

1 or 2 mark response

List / Definition / Describe / Identify / Match / Name / Select

These words will focus a simple and precise response to access the key information required.

Listing / Selecting / Naming / Identifying requires a single word or phrase answer with no description or definition required unless specifically requested.

For example

Name the component of fitness shown in the diagram attached....

Identify the recommended training zone to improve Rachel's component of fitness....

Match the component of fitness to the test each athlete is performing.....

Select an option from the available list....

Key exam terminology

2, 4, 6 or 9 mark response

Explain / Discuss

These words require a greater **explanation** and development of knowledge to allow more marks to be gained from your response.

They also allow specific examples to be used that show your full understanding of **key concepts**.

It is key here that you develop your answers using connectives to fully show that you have understood what the question requires from you and have **discussed** the outcomes in your response

For example

Explain why hurdlers would use ballistic and Proprioceptive Neuromuscular Facilitation (PNF) stretching to improve performance...

Discuss factors that could affect the validity of Nicola's Multi Stage Fitness Test (MSFT) results.....

The number of marks required will be placed in brackets at the end of the question i.e. (9)

Cornell Notetaking Method

Cue Column

Notes Column

← 2.5 Inches →

← 6 Inches →

• Main Ideas

• Questions that connect points

• Diagrams

• Study prompts

When?

After class

During review

• Main lecture notes here

• Use concise sentences

• Use shorthand symbols

• Use abbreviations

• Use lists

• Put space between points

When?

During class

Summary Column

• For top level, main ideas

• Use as a quick reference area

When?

After class

During review

↑ 2" ↓

Revision Methods

Notes – This is the area whereby key information is taken about the area of study.

Cues – The main points of a topic are listed and questions that can be made about how the notes are interpreted.

Summary – Brief overview to be made of most important key points to use as a reference when scanning information.

Level	Descriptor
0 marks	No rewardable material
1 1-3 marks	A few key points identified, or one point described in some detail. The answer is likely to be in the form of a list. Only one viewpoint considered. Points made will be superficial/generic and not applied/directly linked to the situation in the question.
2 4-6 marks	Some points identified, or a few key points described. Consideration of more than one viewpoint but there will be more emphasis on one of them. The answer is unbalanced. Most points made will be relevant to the situation in the question, but the link will not always be clear.
3 7-9 marks	Range of points described, or a few key points explained in depth. All sides of the case are considered and the answer is well-balanced, giving weight to all viewpoints. The majority of points made will be relevant and there will be a clear link to the situation in the question.

The marks awarded show clearly the importance of developing multiple points when completing an extended answer. The points must be linked to the question directly and 3 points are the minimum that can be given for a full mark response.

Example; Euan is 18 years old a 400m runner who has a race in 12 weeks. He currently trains for 30 minutes twice a week with his coach at the athletics track. Discuss how the FITT principles could be applied to a training programme for Euan?

Key exam technique for extended answers

State clearly the key information and definitions required to respond and answer the question within the first sentence.

Explain the reasoning behind your answer and the impact this may have on the performer or scenario.

Examples are used effectively to illustrate and confirm your understanding and reasoning when answering the question.



Knowledge Organiser

BTEC Level 1/2 Tech Award in Health and Social Care

Component 2: Learning Aim A – Health and Social Care Services

Language for learning



Health care

- Primary care
- Secondary care
- Tertiary care
- Allied health professionals

Social care

- Services for young people
- Services for specific needs
- Services for older adults
- Informal social care

Barriers and overcoming them

- Physical barriers
- Sensory barriers
- Social, cultural, psychological
- Language
- Geographical
- Intellectual
- Resource (service provider)
- Financial (service user)

Primary care (first point of contact)

- GP surgery
- Health centre
- Walk in centre
- Pharmacist
- A&E dept
- Dentist
- Optician



Secondary care (specialist care or treatment)

- Cardiologist
- Gynaecologist
- Urologist
- Paediatrician
- Dermatologist
- Neurologist



Health care

Tertiary care (further advanced treatment)

- Cardiac surgeon
- Cancer/palliative/hospice care
- Rehabilitation
- Burns specialist
- Plastic surgeon
- Neo-natal care



Allied health professionals (specialist roles not medically trained)

- Speech/art therapist
- Maternity support worker
- Theatre support worker
- Physiotherapist
- Dietician
- Phlebotomist



Questions to consider



Identify and outline the health and social care services available in our local and wider area.

Explain how the services meet the needs of your case study individuals. **Explain how** barriers can affect the use of these services.

Rank and justify which services are most suitable for your case study individual.

Analyse and assess how these barriers to accessing the services can be overcome by making realistic suggestions and considering alternatives.

The bigger picture (synoptic links):

What skills do the workers need? **How** can these services work together to promote the PIES development and wellbeing of the individuals?

Services for young people

Reasons for needing support:

- Parent/carer is ill
- Relationship breakdown
- Behavioural issues/other needs

Types of support:

- Foster care
- Residential care
- Youth work



Social care

Services for adults/children with specific needs

Examples of specific needs:

- Disabilities
- Learning/sensory needs
- Long term health issues

Types of care:

- Residential care
- Respite care



Services for older adults

Age related problems:

- Arthritis/osteoporosis
- Cardiovascular disease
- Cancer/breathing problems
- Depression/dementia

Types of care:

- Residential care
- Domiciliary care



Informal social care (volunteers)

Informal carers can include:

- Spouse or partner
- Son or daughter
- Friends or neighbours

Types of support:

- Practical tasks around the house
- Shopping/collecting prescriptions
- Take to appointments
- Personal care



Barriers to accessing health and social care services and ways to overcome them

Physical barriers

- Health conditions
- Buildings
- Public transport
- Bad weather

Overcome by:

- Mobility equipment
- Plan routes carefully
- Provide easy access



Sensory barriers

- Vision impairment
- Hearing impairment

Overcome by:

- Large print
- Braille
- Good communication
- Sign language
- Lip reading
- Hearing aids



Social, cultural and psychological barriers

- Phobia/anxiety/other mental health conditions
- Drug/alcohol problems
- Cultural differences

Overcome by:

- Respect beliefs
- Share concerns



Language barriers

- Different language
- Jargon/slang
- Illnesses

Overcome by:

- Forward planning
- Translation software
- Interpreters
- Show respect



Geographical barriers

- Public transport
- Distance
- Expensive
- Walking route tricky

Overcome by:

- Voluntary services
- Mobile units
- Refund charges



Intellectual barriers

- Genetic conditions
- Pregnancy/childbirth/childhood problems
- Unknown causes

Overcome by:

- Good communication
- Learning disability/speech therapist



Resource barriers

- Costs of: buildings, vehicles, staff wages, uniform, equipment, food
- Lack of staff

Overcome by:

- Organising skills and time
- Use of technology
- Training/education
- Reducing waste



Financial barriers

- Cannot afford the service/prescription
- Travel costs
- Loss of income during treatment

Overcome by:

- Help with health care charges
- Charity support





Preparation for the BTEC Course Work Internal Assessment

BTEC Level 1/2 Tech Award in Health and Social Care

Component 2: Learning aim A – understand the different types of health and social care services and barriers to accessing them

From the assignment brief: This task is about the different types of health and social care services and the barriers individuals sometimes face when they are trying to access the services. Please choose one of the case studies attached to the assignment brief to base your work on.

Section 1: Services for your case study individuals

1. Research a combination of **real-life, local HEALTH and SOCIAL care services** suitable for your case study individuals.
2. Identify appropriate local services that meet their needs and **examine** in detail how these services meet their needs:
 - What treatment/therapy/support is on offer for your individuals and how will this improve their health/wellbeing?
 - Give reasons how these services you have chosen meet the needs of the individuals in your case study.
3. Present your findings in **rank order**, starting with the most important service for your individuals and arrive at a **conclusion to justify** why this is and why you have reached these judgements.
4. Do this for both individuals.

Literacy signposts

- The health service most suitable for... is... This is because...
- The social care service I decided is the most appropriate for... is ...This will support him/her to...
- Firstly... Primarily... Secondly... Next... Finally...
- The most important health factor to consider is...
- The service that can best meet the needs of ... would be... This service can offer...
- He/she can access the ... service which will support ...
- This is important for his/her overall wellbeing in that...
- This is relevant because it will help him/her to...
- This is a health care/social care priority because...

Mark scheme

For Level 2 Distinction: learners must assess the suitability of health and social care services for meeting the needs of individuals in the case study. This requires learners to make an overall judgement, which could result in rankings or scores, together with clear information about how they have reached this judgement.

For Level 2 Merit: learners must analyse the extent to which health and social care services meet the needs of individuals in the case study.

For Level 2 Pass: learners must explain ways in which health and social care services meet the needs of individuals in the case study.

Section 2/3: Barriers for one case study individual in accessing one service and ways to overcome these barriers

1. Choose only **one** individual and **one** service from section 1.
2. Explain the many different barriers the individual might have in accessing this service.
 - Explain in detail why this is a barrier for your individual.
3. Make justified and realistic suggestions for how barriers for one service can be overcome. For each suggestion:
 - Provide details to support your argument about how this barrier can be overcome.
 - Provide clear reasons and explain why the suggestions are **realistic, include why other possibilities wouldn't work** (think about cost or convenience).

Literacy signposts

- One barrier for... in accessing... is...
- Financial barriers may be involved such as... because...
- There is a physical barrier which is... Another barrier is...
- ... may have some difficulty in accessing the...
- One way in which this can be overcome is...
- This barrier can be overcome by...
- The solution to this is... He can get help with this barrier.
- For him/her to be able to access this service then...
- One alternative way to overcome this barrier is to...
- On the other hand he/she could...This is better since...
- This is the most effective/appropriate solution because...it is more economical/convenient...

Mark scheme

For Level 2 Distinction: learners must include justified and realistic suggestions for how barriers can be overcome in using a service for one individual. The justification should provide clear reasons and explain why the suggestions are realistic, this might include why other possibilities would not work.

For Level 2 Merit: learners must explain what barriers exist for one individual from the case study in using a service. They must also explain how these barriers can be overcome for this individual.

For Level 2 Pass: learners must also explain the ways in which barriers would affect one individual from the case study in using one of the services.



KS4 – WJEC Hospitality and Catering – Unit 2 1.1 Nutrients Required by the Body Knowledge Organiser.

Language for learning:

- HBV proteins
- LBV proteins
- Fat soluble
- Saturated
- Unsaturated
- Simple carbohydrates
- Complex carbohydrates
- Reference intake (RI)
- Fibre (NSP)
- Diabetes
- Allergies
- Gluten Intolerance
- Coeliac Disease
- Lactose Intolerance
- High Cholesterol
- Coronary Heart Disease
- Vegetarianism
- Pescetarian
- Ovo-vegetarian
- Lacto-vegetarian
- Vegan
- RNI (Reference nutrient intake)
- Calories
- Bones
- Teeth
- Anaemia
- Calcium
- Retinol



Carbohydrates



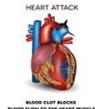
Carbohydrate is the body's main source of energy (fuel). Carbohydrate breaks down to glucose, which is the only form of energy the brain recognizes.
Basically, without carbohydrate, your brain wouldn't function!

There are 2 different types of carbohydrate: Sugary and Starchy.



Starchy carbohydrates are better for us because they provide energy for longer and not just a quick sugar rush. Sugary carbohydrates can lead to rotting teeth and obesity. Being obese can lead to strokes and heart attacks.

It is important that when you eat carbohydrates, you burn off the energy it provides. If you eat a lot of carbohydrates and don't use the energy, then you start to put weight on



Water

Water makes up just over 2/3 of the human body and is required for:

- Maintain body temperature
- Metabolise fat
- Aid digestion
- Lubricate organs
- Transport nutrients
- Flushes out waste and toxins



Foods Rich in Water



Fibre

Fibre (NSP)
Non-Starch Polysaccharide

Food also provides fibre.

- Fibre **does not provide** the body with energy, but is needed to fulfil some important 'support' functions for the body.
- Fibre aids digestion by supporting the **removal of waste products** from the body.
- This decreases the amount of toxins in the body and can prevent bowel and colon cancers.



Protein

Protein is essential for the growth, maintenance and repair of body tissue. Protein is part of every living cell and some tissues like skin, muscle, hair and the core of bones and teeth!

Proteins are made up of amino acids of which there are:

9 essential

Body cannot manufacture (make) these.

Must be provided by our diet.

High Biological Value

Animal sources of protein, such as meat, poultry, fish, eggs, milk, cheese and yogurt.

12 non-essential

Can be made by the body.

Low Biological Value

Plants, legumes, grains, nuts, seeds and vegetables.

A vegan diet contains only plants, such as vegetables, grains, nuts and fruits, and foods made from plants. Vegans don't eat foods that come from animals, including dairy products and eggs.

A healthy vegan diet contains:

- plenty of fruit and vegetables
- plenty of starchy foods
- some non-dairy sources of protein, such as beans and pulses
- some dairy alternatives, such as fortified soya drinks
- just a small amount of fatty and sugary foods



For vegetarians who eat dairy products and eggs, a healthy diet is the same as for anyone else but without meat or fish.

A healthy vegetarian diet contains plenty of fruit and vegetables and starchy foods, some non-dairy sources of protein such as eggs and beans, some dairy products and just a small amount of fatty and sugary foods.



Fats

Fat is needed in the body for several reasons:

- Protection** of internal organs.
- Thermoregulation** (temperature control).
- Insulation** of nerve cells (conduct electrical messages)
- Uptake of fat soluble vitamins (**A, D, E & K**).
- Growth, development and repair** of body tissues.
- In women, storage and modification of **reproductive hormones** (oestrogen).
- Flavour** - fat in food improves 'mouth feel' takes longer to digest 'satiety value'.
- 'Grease' food to make it easier to swallow.
- Essential fatty acids** – Omega 3 and 6.

Classification of Fats

Classification	Characteristics	Sources
Saturated Fats (bad)	<ul style="list-style-type: none"> Mainly from animal sources. Solid at room temperature. With the exception of palm and coconut oil. 	Meat, Butter, Cream, Eggs
Polyunsaturated Fats	<ul style="list-style-type: none"> Mainly from non-animal sources and liquid at room temperature. 	Vegetable oil, Corn oil, Safflower oil, Nuts, Oily fish
Monounsaturated Fats	<ul style="list-style-type: none"> Liquid at room temperature. Will slightly solidify at cool temperatures. 	Avocado, Many nuts and seeds, Olive oil, Rapeseed oil, Almond oil, Sunflower oil
Essential Fatty Acids Omega 3 and 6	<ul style="list-style-type: none"> Found in unsaturated fats. Omega 3 found in far fewer foods than Omega 6. 	Oily fish, Seeds and oils, Flaxseeds, Pumpkin seeds, Walnuts, Soya beans, Dark green vegetables, Vegetable oils, Margarine (polyunsaturated)
Trans Fatty Acids (Hydrogenated) Terrible!	<ul style="list-style-type: none"> Not naturally occurring fats Produced via process called 'hydrogenation'. Converts liquid fats to solid fats. 	

AC1.1 – Nutrients.

You need to write about:

- Protein.
- Carbohydrates.
- Fats – saturated and unsaturated
- Vitamins A, B, C and D.
- Minerals – Sodium, iron and calcium.
- Water
- Fibre

For each nutrient – why do we need them, what foods are they found in, what happens if you have too much, or not enough?





KS4 – WJEC Hospitality and Catering – Unit 2 1.1 Nutrients Required by the Body Knowledge Organiser.

Vitamin D

Vitamin D helps regulate the amount of calcium and phosphate in the body.

These nutrients are needed to keep bones, teeth and muscles healthy.

A lack of vitamin D can lead to bone deformities such as rickets in children, and bone pain caused by a condition called osteomalacia in adults.

Good sources of vitamin D:

- oily fish – such as salmon, sardines, herring, mackerel, fresh tuna
- red meat, liver
- egg yolks
- fortified foods – such as most fats spreads and some breakfast cereals



How much vitamin D do I need?

Babies up to the age of one year need 8.5-10mcg of vitamin D a day.

Children from the age of one year and adults need 10mcg of vitamin D a day. This includes pregnant and breastfeeding women, and people at risk of vitamin D deficiency.

Vitamin C – Ascorbic acid

These include:

- helping to protect cells and keeps them healthy
- maintaining healthy skin, blood vessels, bones and cartilage
- helping with wound healing

Lack of vitamin C can lead to scurvy. Mild deficiencies may occur in infants given unsupplemented cows' milk and in people with poor or very restricted diets.

Good sources of vitamin C:

- oranges and orange juice
- red and green peppers
- strawberries
- blackcurrants
- broccoli
- brussels sprouts
- potatoes



Vitamin C can't be stored in the body, so you need it in your diet every day.

What happens if I take too much vitamin C?

Taking large amounts (more than 1,000mg per day) of vitamin C can cause:

- stomach pain, diarrhea, flatulence

These symptoms should disappear once you stop taking vitamin C supplements.

Vitamin A

Vitamin A, also known as retinol, has several important functions.

These include:

- helping your body's natural defense against illness and infection (the immune system) work properly
- helping vision in dim light
- keeping skin and the lining of some parts of the body, such as the nose, healthy

Good sources of vitamin A include:

- Cheese, eggs, oily fish
- fortified low-fat spreads
- milk and yoghurt
- liver and liver products such as liver pâté – **this is a particularly rich source of vitamin A, so you may be at risk of having too much vitamin A if you have it more than once a week (this is particularly important if you're pregnant)**

Thiamin (vitamin B1)

Thiamin (vitamin B1)

Thiamin, also known as vitamin B1, helps:

- break down and release energy from food
- keep the nervous system healthy

Good sources of thiamin:

- peas
- fresh and dried fruit
- eggs
- wholegrain breads
- some fortified breakfast cereals
- liver



Vitamin B12

Vitamin B12 is involved in:

- making red blood cells and keeping the nervous system healthy
- releasing energy from food
- using folic acid

A lack of vitamin B12 could lead to vitamin B12 deficiency anaemia

Good sources of vitamin B12:

- Meat, salmon, cod
- Milk, cheese, eggs
- some fortified breakfast cereals



Minerals - Calcium

Calcium has several important functions.

These include:

- helping build strong bones and teeth
- regulating muscle contractions, including heartbeat
- making sure blood clots normally

A lack of calcium could lead to a condition called rickets in children and osteomalacia or osteoporosis in later life.

- Too much can lead to stomach ache and diarrhoea.



Sources of calcium include:

- milk, cheese and other dairy foods
- green leafy vegetables – such as broccoli, cabbage and okra, but not spinach
- soya beans
- tofu
- soya drinks with added calcium
- nuts
- bread and anything made with fortified flour
- fish where you eat the bones – such as sardines and pilchards

Minerals – Iron

Iron is important in making red blood cells, which carry oxygen around the body.

A lack of iron can lead to iron deficient anaemia. **Good sources of iron include:**

- liver (but avoid during pregnancy)
- meat
- beans
- nuts
- dried fruit – such as dried apricots
- wholegrains – such as brown rice
- fortified breakfast cereals
- soybean flour
- most dark-green leafy vegetables – such as watercress and curly

Women who lose a lot of blood during their monthly period are at higher risk of iron deficiency anaemia and may need to take iron supplements.

What happens if I take too much iron?

Side effects of taking high doses (over 20mg) of iron include: constipation, feeling sick, vomiting, stomach pain. Very high doses of iron can be **fatal**, particularly if taken by children, so always keep iron supplements out of the reach of children.

Salt

Many of us in the UK eat too much salt. Too much salt can raise your blood pressure, which puts you at increased risk of health problems such as heart disease and stroke.

You don't have to add salt to food to be eating too much – 75% of the salt we eat is already in everyday foods such as bread, breakfast cereal and ready meals.

How much salt for adults?

Adults should eat no more than 6g of salt a day – that's around one teaspoon. Children should eat less:

- 1 to 3 years – 2g salt a day (0.8g sodium)
- 4 to 6 years – 3g salt a day (1.2g sodium)
- 7 to 10 years – 5g salt a day (2g sodium)
- 11 years and over – 6g salt a day (2.4g sodium)





KS4 – WJEC Hospitality and Catering – Unit 2 1.1 Nutrients Required by the Body Knowledge Organiser.



Reference Intake

The NHS recommends the following intake of each nutrient per day:

Vitamin A	0.7mcg	0.6mcg
Vitamin D	10mcg	
Vitamin E	4mg	3mg
Vitamin K	1mcg per kg of body weight	
Vitamin B	Thiamin: 1mg Riboflavin: 1.3mg Vitamin B12: 1.5mcg	Thiamin: 0.8mg Riboflavin: 1.1mg Vitamin B12: 1.5mcg
Vitamin C	40mg	
Sodium (Salt)	Less than 6g	
Iron	All (M) 8.7mg	(F) 19-50yrs 14.8mg / 50yrs+ 8.7mg
Calcium	700mg	

Water soluble vitamins

C Antioxidant	Normal structure and function of connective tissue Antioxidant (protects from free radicals) Helps absorb iron	Main sources from plants – fruits and vegetables. Milk and liver contain small amounts.	Scurvy
B1 Thiamin	Normal function of the nervous system and heart	Whole grains, meat, flour and breakfast cereals.	Beri-beri (disorder of the nervous system).
B2 Riboflavin	Release of energy from food	Milk, eggs, green vegetables.	Dry cracked skin around the mouth and nose.
B12	Cell division and blood formation Normal structure of nerves	Animal sources – milk, meat and eggs. Some algae and bacteria can produce B12.	Anaemia (rare), maybe found in vegetarians.

Fat soluble vitamins

A Antioxidant	Vision	Dairy Products Dark Green Veg Orange coloured fruit and veg Fish Oils and Liver	Poor vision
D	Bone growth	Fish Oils Dairy Products Sun Light Absorption	Rickets Osteomalacia
E Antioxidant	Protect tissue	Dairy Products Dark Green veg Nuts	Age quickly Wrinkles Skin loses elasticity
K	Blood clotting	Dark Green Veg Fish, liver, fruit	Haemorrhages



KS4 ART – Knowledge Organiser: PORTFOLIO DEVELOPMENT...Identity Project and Contextual Studies (Artist Research)

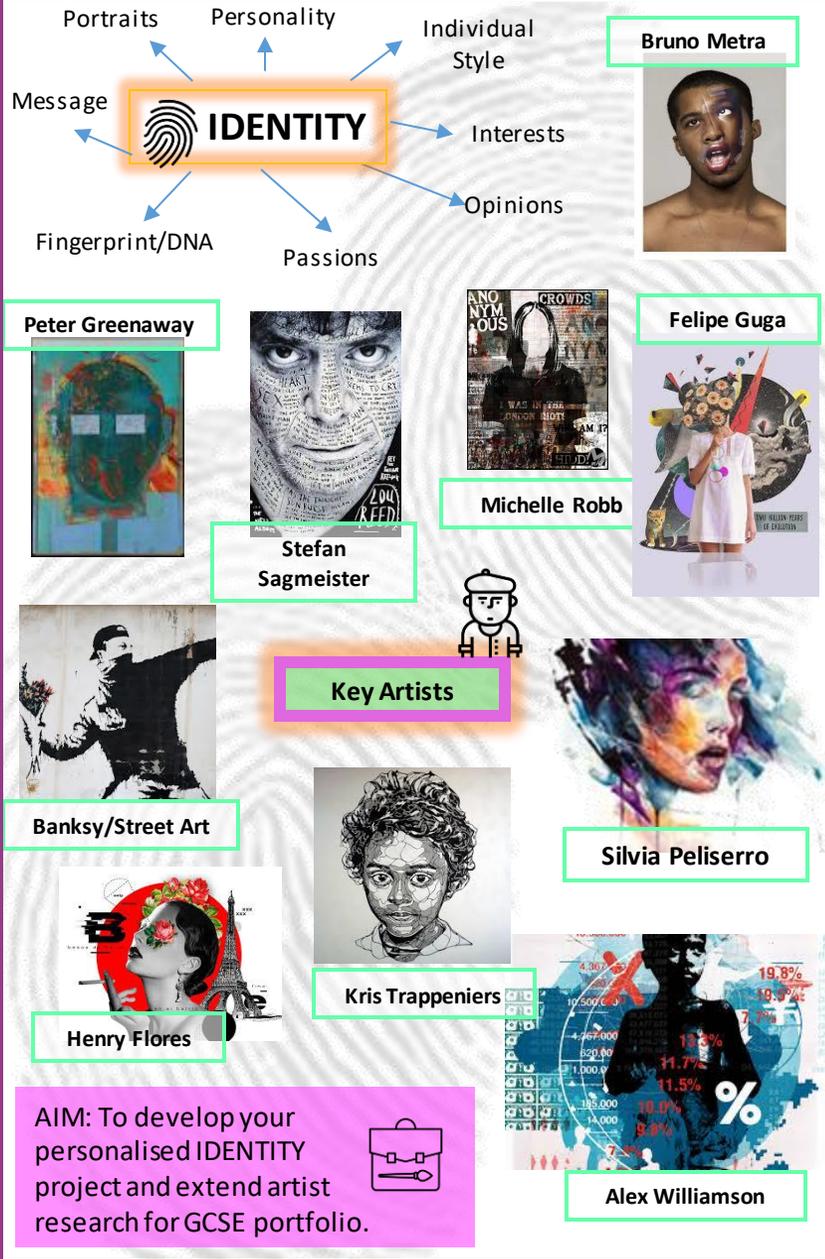
Language for Learning:

- Continuous Line
- Silhouette
- Layers
- Merge
- Expressive
- Creative
- Proportion
- Message
- Tone
- Stencil
- Collage
- Powerful



Key Artists

- George Braque
- Andy Warhol
- Pablo Picasso
- Giacomo Balla
- Marcel Duchamp
- Paul Klee
- Wassily Kandinsky
- Piet Mondrian
- Theo Van Doesburg
- Ben Nicholson
- Peter Lanyon
- Jackson Pollock
- Franz Kline
- Frank Auerbach



AIM: To develop a set of artist research sheets showing an understanding of the techniques and media used. To include elements of AO2 and AO3 through careful composition and creative presentation.....This will also from part of your portfolio.



CONTEXTUAL STUDIES

Work from artists covered in your contextual studies booklet will be included as part of your final portfolio. You will be selective when deciding which artists you will research and where possible, find links between their work and your own.

PORTFOLIO PRESENTATION...is key!



Questions to consider.....

How	Can I create my own version of the artists' work? Can I express my own personality and opinions visually?
Explain how	You have developed your ideas. What techniques and media you have used and why these are appropriate to your personal journey.
What	Makes the artist' work successful. Have you used the same/similar media in a way that demonstrates the same success?
Which	Of the experiments you have chosen to develop further show the most effective used of media?
Explain	Who and what has inspired your ideas. Talk about your decisions and explain how you have modified your work.
Why	Did you select your theme and artists and why is the media you have used appropriate to the theme(s)?
What	Are the main characteristics of each artists work and what are their strengths?

How will you select and present your portfolio in a way that will showcase it best?





There are 4 assessment objectives in GCSE Art:

A01 Develop ideas through investigations, demonstrating critical understanding of sources

DEVELOP INVESTIGATE

EXPLAIN ARTISTS IDEAS ANNOTATE

contextual research

EXPLORE

A02 Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes

REFINE EXPERIMENT

EXPLORE TECHNIQUES AND SKILLS SELECT EXPLAIN

PHOTOGRAPHS IDEAS

A03 Record ideas, observations and insights relevant to intentions as work progresses

RECORD INTENTIONS

LINK OBSERVATION IDEAS PLANNING

PRIMARY RESEARCH

RELEVANT

A04 Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language

RESPONSE MEANINGFUL

VISUAL LANGUAGE DEMONSTRATE

UNDERSTANDING MAKE CONNECTIONS CONCLUSION

All 4 Assessment Objectives must all be covered in depth to achieve your potential.

To summarise:

AO1: Artist research and inspiration.

AO2: develop and refining experiments successful techniques.

AO3: Recording observations-taking lots of photographs and making notes

AO4 Making final outcome/s or response.

YOUR PORTFOLIO IS YOUR COURSEWORK. THIS IS 60% OF YOUR FINAL GRADE YOUR EXAM IS 40% OF YOUR FINAL GRADE

THE EXAM PAPERS ARE DISTRIBUTED IN JANUARY 2021. EXAM PREPARATION STARTS IMMEDIATELY AFTER THIS!

Sentence starter for annotation:

- I am interested in the work ofdue to their use of.....
- I am intrigued by the artisttheir use ofcreates an aesthetically pleasing outcome.
- The artistlinks well to my subject matter due to the way they.....I intend to develop this characteristic in my own work by experimenting with
- I aim to use the characteristics of.....within my work, to do this I am going to develop.....

EXTENDED LEARNING

Anything that appeals to you creatively is acceptable to include in your portfolio. For example, if you use Pinterest and you see an image or project that appeals to you then have a go. There are many online exhibitions you can view and galleries you can follow which may also inspire you! Remember, your artwork can be anything – there is no right or wrong as long as you can show evidence of the assessment objectives through your work. Here is a list of galleries and exhibitions you may want to look at and some more artists who have been popular with our students over recent years.....

TIP! These artists would also be suitable to include as part of your Identity project!

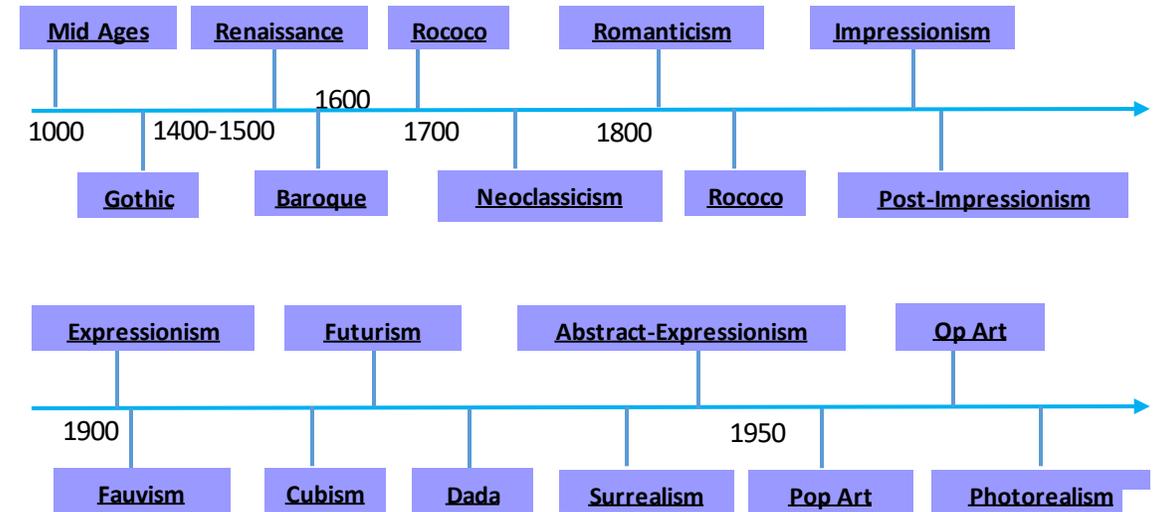
freeartfridaymc
manchestercraft
thelowry
Homemcr
mcartgalery
Whitworthart
yspsculpture

frieze_magazine
friezeartfair
artnet
saachi_gallery
artforum
tate
Themuseumofmodernart

Teesha Moore
Kareem Rizk
Julien Pa caud
Jill Ricci
Rosie James
Rupert Van Wyk

Linda Vachon
Pablo Gonzalez Trejo
Michael Reeder
Andy Warhol
Greg Sands
Anca Gray

TIMELINE

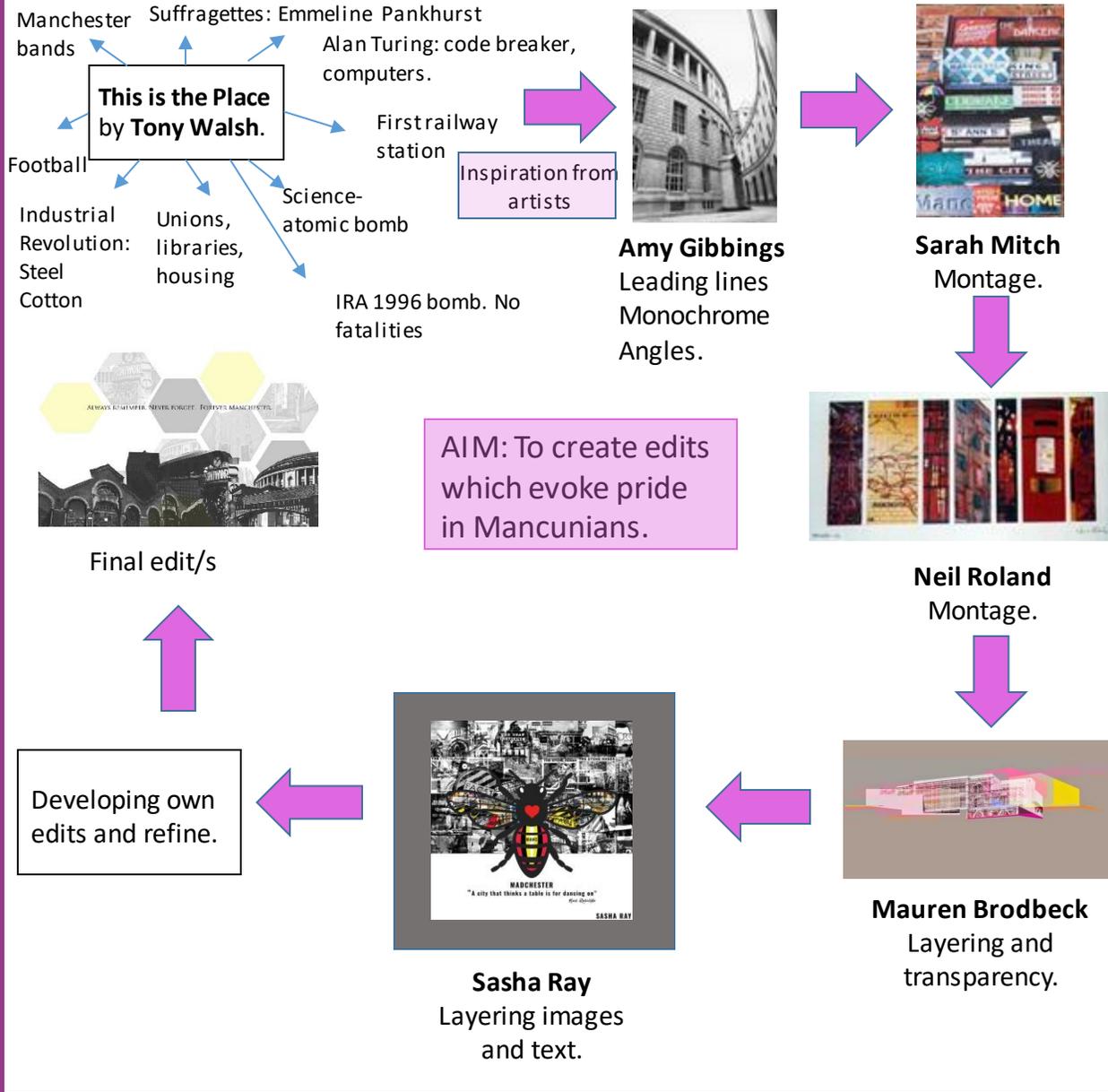




KS4 Photography GCSE – Topic 5: Manchester: This is The Place. Knowledge Organiser

Language for Learning:

- Aesthetics
- Aesthetically
- Alan Turing
- Argh Kid
- Amy Gibbings
- Analogue camera
- Characteristics
- Commission
- Composition
- Contrasting
- Darkroom
- Develop
- Digital
- Emmeline Pankhurst
- Evoke
- Hexagon
- Hive
- Honeycomb structure
- Focus
- Imagery
- Industrial Revolution
- Inspiration
- Inspired
- IRA
- James Wakefield
- Mancunian
- Mauren Brodbeck
- Montage
- Neil Roland
- Ryan Williams
- Sarah Mitch
- Sasha Ray
- Similarities
- Subject Matter
- Suffragettes
- Tony Walsh



Questions to consider.....



How	will we illustrate the poem This is the Place through Photography? Look at the main points surrounding the title of the poem-how will we illustrate these?
Explain how	You will ensure your edit/s will make strong visual links to the work of the artist.
What	could make your compositions even more successful? Does the hive/honeycomb feature? Have you chosen an evocative phrase from the poem to add to your edit?
Which	characteristics have you taken from the artist to influence you in this edit?
Explain	which lines of the poem indicate the: industrial revolution/how the city is at the heart of innovation/ resilience of the people.
Why	Is Emmeline Pankhurst/Alan Turing an important figure to Manchester?
What	Are the main characteristics of each artists work?

Which factors link to today's learning?
Social / historic/ political / artistic influence/ technical skills...

How does this learning link to the big picture?

Who are the key artists?



KS4 Photography – Topic 5: Manchester-This is the Place Preparing you for GCSE Style

Exam

There are 4 assessment objectives in GCSE Photography:

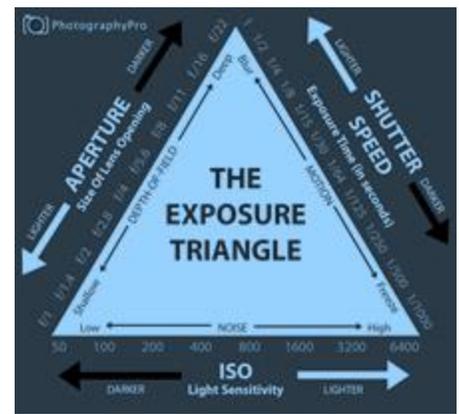
A01 Develop ideas through investigations, demonstrating critical understanding of sources	A02 Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes
DEVELOP INVESTIGATE	REFINE EXPERIMENT
EXPLAIN ARTISTS IDEAS ANNOTATE	EXPLORE TECHNIQUES AND SKILLS SELECT EXPLAIN
contextual research EXPLORE	PHOTOGRAPHS IDEAS
A03 Record ideas, observations and insights relevant to intentions as work progresses	A04 Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language
RECORD INTENTIONS	RESPONSE MEANINGFUL
LINK OBSERVATION IDEAS PLANNING	VISUAL LANGUAGE DEMONSTRATE
PRIMARY RESEARCH RELEVANT	UNDERSTANDING MAKE CONNECTIONS CONCLUSION

All 4 Assessment Objectives must all be covered in depth to achieve your potential.

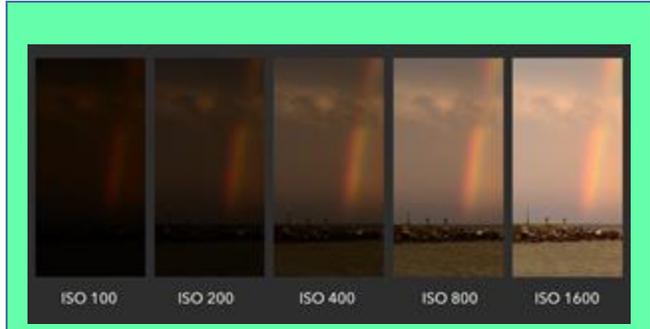
To summarise:
 AO1: Artist research and inspiration.
 AO2: develop and refining both photoshoots and editing.
 AO3: Recording observations-taking lots of photographs and making notes
 AO4 Making final outcome/s or response.

- Photoshop Tools
-  Move tool
 -  Rectangular Marquee tool
 -  Polygonal Lasso tool
 -  Quick selection tool- sees Shape
 -  Magic Wand- sees colour
 -  Crop
 -  Eye dropper- selects colour
 -  Spot healing brush
 -  Healing brush
 -  Brush tool
 -  Gradient tool
 -  Eraser tool
 -  Pencil tool

- ISO
- Aperture
- Shutter speed



Camera settings



ISO is simply a camera setting that will brighten or darken a photo.
 The higher the ISO setting, the less amount of light needed to achieve the correct exposure.
 The lower the ISO setting, more light is needed to achieve correct exposure.

Aperture can be defined as the opening in a lens through which light passes to enter the camera. It is expressed in f-numbers like f/1.4, f/2, f/2.8 and so on to express the size of the lens opening.

Size of Aperture: Large vs Small Aperture

Sentence starter for annotation:

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The **shutter speed**, is just how long that barrier stays open to let light into the image.

Shutter speed is how long an image is exposed to light — it can be milliseconds, or even minutes.

VALUES

ASPIRATION I believe that having high aspirations can motivate me to work hard and achieve my goals without excuses. I have high expectations in everything I do. Aspiration is valuable because it allows me to look beyond my current experiences and to understand, interpret and change the world for the better. *“For I know the plans I have for you, declares the Lord, plans to prosper and not to harm you, to give you hope and a future”* Jeremiah 29:11

INTEGRITY I believe that living my life by high moral standards and values is important. I understand how values are grounded in faith and biblical teaching. I commit to doing the right thing in all circumstances, even if this makes things more difficult for me and when no one is watching. I take responsibility for myself and my community to help it improve for everyone. *“Whoever walks in integrity walks securely”* Proverbs 10:9a

RESPECT I believe that mutual respect is the most important element in a kind and cohesive community. Respect, and self-respect, means that I take things seriously. I care about myself and others and aim to do good as I go. Respect is valuable because it allows me to understand the differences in our community and to know how to behave in the best interests of that community.

“Love your neighbour as you love yourself” Matthew 22:39

HARD WORK I believe that through hard work I can overcome challenges as I meet them. I am resilient and want to complete every task to the best of my ability. Hard work is valuable because it enables me to be the best I can be and the best I am meant to be. It builds the foundation of experience and learning for my future. *“With God all things are possible”* Matthew 19:26