



All Saints'
Academy
Cheltenham

Year 10

Cycle 3

Curriculum Organiser

Name : _____

Tutor : _____

Contents Page

Page	Contents
3	All Saints' Academy Home School Agreement
4	Independent homework timetable for 2024-25
5	Why Study?
6	How should I use my Curriculum Organiser?
7	Spelling, Punctuation and Grammar
8-11	English
12-17	Maths
18-20	Science
21-24	Religion and Ethics
25-26	Physical Education
27-29	Options Subject 1:
30-32	Options Subject 2:
33-35	Options Subject 3:

All Saints' Academy Home School Agreement – 2024/25

All Saints' Academy recognises that the successful development of its students depends on an effective partnership of the Academy, students and parents/carers.

All three parties share responsibility for the development and achievement of each student. Together we commit ourselves to the following:

The Academy will: • Provide a learning environment that is stimulating, safe and caring. • Treat everyone with respect. • Ensure that each student has the opportunities, <u>support</u> and guidance to achieve their full potential. • Report regularly on each student's progress. • Expect high standards, set clear rules, promote mutual <u>respect</u> and develop a sense of responsibility. • Keep parents informed about Academy matters, be welcoming to enquiries and responsive to concerns. • Set homework in line with the published <u>timetable</u>, and give feedback on tasks completed. • Record and reward good progress and performance. • Offer enrichment activities that will develop broader skills to prepare for life and the world of work.	Parents/Carers will: • Make sure their child attends in correct uniform, arrives on time and is properly equipped. • Encourage their child to work hard and support them in their homework. • Attend consultation evenings and discussions about their child's progress. • Support the Academy's policies and guidelines as published on the Academy website. • Allow their child to attend off-site visits during the day. • Agree to the sanctions system as set out in the Academy Ready to Learn Policy. • Ensure their child attends every day and that time out of school is not taken or requested, unless for an urgent reason. • Inform staff, if they have concerns about their child's <u>progress</u>, <u>well-being</u> or any other issues. • Encourage their child to participate in the enrichment opportunities offered by the Academy.	Students will: • Be an ambassador for All Saints' Academy. • Work hard in class and at home to achieve their full potential. • Treat others as they would wish to be treated and live out the Academy values. • Attend the Academy in correct uniform, be on time and properly equipped. • Keep the Academy rules, behave responsibly and be polite to others in the Academy, and in the wider community. • Follow the Ready to Learn Policy, completing any sanctions set and striving to achieve rewards each week. • Understand that any misbehaviour in the community whether in uniform or not, will be treated as if the incident happened in the Academy. • Take part in enrichment activities offered by the Academy. • Care for the environment in and outside the Academy.
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Signed by Form Tutor	Signed by Parent/Carer	Signed by Student
.....		

**'Where every member of our extended family realises their God-given potential, inspired by John 10:10.
Jesus said "I have come so you may have life in all its fullness"**

Independent homework timetable

Subject	Week 1 day	Week 2 day
English		
Maths		
Biology		
Chemistry		
Physics		
RE		
Option subject 1:		
Option subject 2:		
Option subject 3:		

Why study?

All students study because they value opportunities to learn and improve.

All students understand that in order to make excellent progress towards bright futures, they need to take responsibility for their own success and study at home as well as at the Academy.

We want you to have the very best opportunities available to you when you leave the Academy. Achieving excellent exam results in Year 11 and Year 13 is one way to help you to do that.

To gain excellent exam results in Year 11 and Year 13, you need to work hard in school every single lesson, every day in Year 7, 8, 9, 10 and 11. If you are in the Academy every day for 5 years you will have 4,750 hours of study time.

We want to make it as easy as possible for you to complete your study away from the Academy. Completing one hour of study per evening at home adds up to an extra 950 hours over your five years with us – which is like having an extra year of learning.

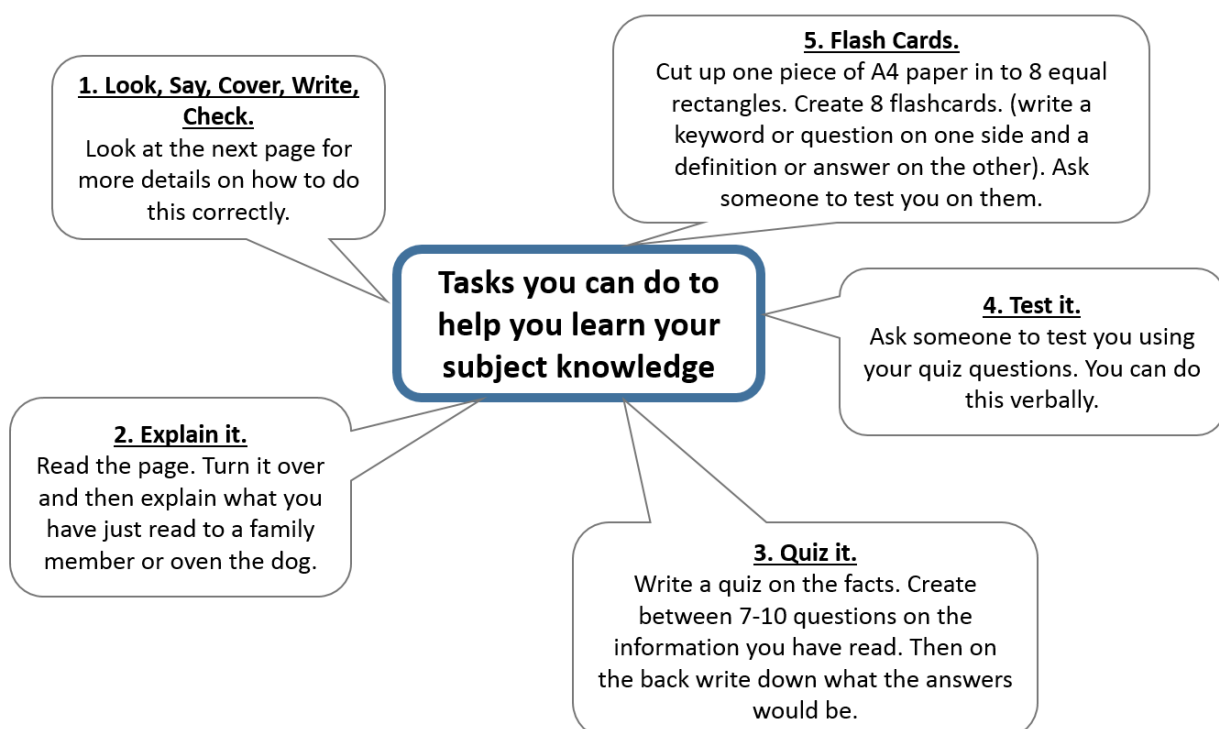
When and what should I study?

You should complete your Independent homework timetable on page 3, so that you know when to study.

Year 7, 8 and 9 should be completing one hour of homework each evening.

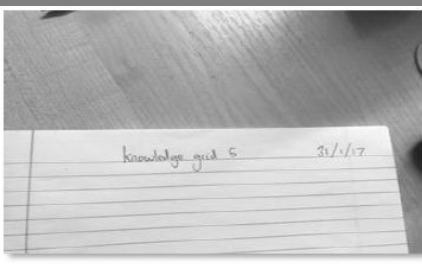
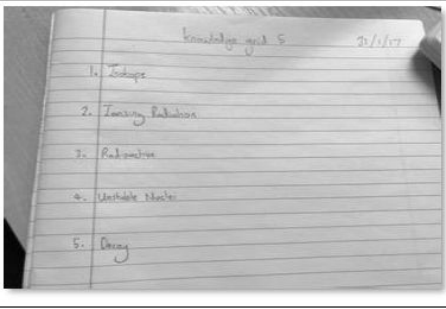
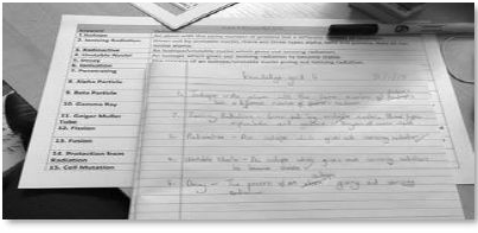
Year 10 and 11 should be completing two hours of homework each evening.

How should I use my Curriculum Organiser to study?



How should I use my Curriculum Organiser to study?

Look, Say, Cover, Write, Check

Step 1		1) Write the date and the title from the knowledge organiser. Underline them.
Step 2		2) Write out the keywords you have been asked to learn, leaving two lines between each word.
Step 3		3) Cover the definitions apart from the first: read it, cover it, say it in your head, check it until you are confident with it. Repeat this process with the other words and take your time.
Step 4		4) Cover up each definition in turn and write them out from memory. Avoid cheating as you need to know how much you can remember. Don't expect yourself to get it exactly right first time.
Step 5		5) Correct your answers in green pen. Repeat the process.



SPAG: Spelling, Punctuation and Grammar

Punctuation

Sentence demarcation:

Symbol	Name	Use
A, N	Capital letters	To start a sentence.
.	Full stop	To show a point/ idea is finished.
!	Exclamation mark	To illustrate heightened emotions, either positive or negative
?	Question mark	To illustrate a question is being asked.
...	Ellipsis	To build tension at the end of sentence or to leave a sentence unfinished for effect.

In sentence punctuation:

Symbol	Name	Use
,	Comma	Following an adverb or connective which starts a sentence or to join a subordinate and main clause together.
“ ”	Speech marks	To indicate the start and end of direct speech.
()	Brackets	To put additional information into a sentence.
‘ ’	Apostrophe	To show a contraction (joining of two words) or omission (taking out of a letter).

Ambitious punctuation:

Symbol	Name	Use
:	Colon	To show the start of a list or to show important information.
;	Semi colon	To separate long items in a list or to join to simple sentences that are linked by meaning.

Grammar rules

Sentence construction:

All sentences need a subject, verb and an object.

Tense:

Past- Was/ Were
Present- Is/Am
Future- Will

Singular and Plural:

I was...
We/ they were....

Capital Letter Rules:

Start to a sentence.
Proper nouns.
Titles of books, films etc.
Days of the week.
Months of the year.
Religious deities.
I/ I'm/ I'd/ I've.
Historical periods/events.

Homophones

Their- belonging to them.

There- a position or place.

They're- contraction for they are.

Witch- a person with magic powers.

Which- a question word.

Were- past tense of was.

We're- contraction for we are.

Its- belonging to something.

It's- contraction for it is.

Toe- a part of the body.

Tow- to pull something along.

Hole- a hollow place in a solid body.

Whole- all of something.

English KS4 Curriculum 2024-2025

	Year 10			Year 11		
	Knowledge and skills	Cross Curricular	Enrichment	Knowledge and skills	Cross Curricular	Enrichment
Cycle 1	Literature Paper 1-Macbeth Read and explore key characters and themes. Language Paper 2-Transactional Writing GAPS and key features of different written genres. SPAG skills. Assessments: Mid-Cycle: Macbeth- Theme of Ambition End: Transactional Writing- article and letter Careers- Stage manager/Director/ Actor/Speech writer/Journalist/ Marketing.	RE: Great Chain of Being and Christian beliefs. History: essay writing skills	RSC live showings	Literature Paper 2 Play: An Inspector Calls or Blood Brothers Read and explore key characters and themes. Unseen poetry Analysis skills Assessments: Mid-Cycle: AIC- Theme of Responsibility Blood Brothers- Theme of secrets and lies End: Mock Exams Careers- Self-employed person/ Councillor/ shop worker.	Geo and Business: Economic world- links to economic ideas presented in the texts. History: similar time period	Theatre trip
Cycle 2	Language Paper 1- Creative Writing SPAG skills, story styles and forms. Literature Paper 1-Poetry Anthology Read and explore key themes and contextual information. Assessments: Mid-Cycle: Creative Writing End: Theme of Nature Careers- Author/ Poet/English teacher/ Editor/ Librarian.	Geography: The Living World and Nature poetry. History- poetry context.	Book club Carnegie shadowing Creative Writing competitions	Revision and Consolidation All sections of Literature and Language revisited and revised as appropriate for specific classes.		Book club Carnegie shadowing
Cycle 3	Literature Paper 2-A Christmas Carol Read and explore key characters and themes. Understanding of historical context. Language Papers 1 and 2- Reading skills Retrieval, analysis, evaluation, synthesis, and comparison. Assessments: Mid-Cycle: Theme of Redemption End: Paper 2 Language reading section Careers- Historian/ Charity worker.	Extended writing skills: History MFL		Revision/ Exams All sections of Literature and Language revisited and revised as appropriate for specific classes.		



Year 10 – Cycle 3 – English Literature – A Christmas Carol		
Characters	Plot Summary	Themes
Ebenezer Scrooge - A miserable, selfish old man who hates Christmas. After a visit from four ghosts, he changes for the better. Fred - Scrooge's nephew. He is cheerful and full of Christmas spirit. Bob Cratchit - A poor, religious family man who works as a clerk for Scrooge. He is treated poorly and not given fair pay. He represents the poor. Tiny Tim - Bob's youngest son. He is ill and walks with a crutch. He has a positive outlook on life and is grateful. Jacob Marley - Scrooge's business partner who died seven years before the novella opens. He is punished for his crimes in life and returns as a ghost to Scrooge, preventing him from suffering the same fate he did. The Ghost of Christmas Past - The first ghost after Marley, it shows Scrooge a range of Christmases from his past. The Ghost of Christmas Present - The next ghost Scrooge meets who shows him a range of people, including the Cratchits and Fred celebrating Christmas. The Ghost of Christmas Yet to Come - The final ghost Scrooge sees who shows him the future that will occur if he doesn't change his ways.	Stave 1: Scrooge is described negatively at work where he neglects his workers, refuses to give money to charity, abuses carol singers and refuses to spend time with family. On leaving work, Scrooge sees (first on his knocker and then in his home) the ghost of Marley, his old, dead business partner. He warns him that he needs to change and tells him he will be haunted by three more ghosts. Stave 2: The first ghost arrives and takes Scrooge into his past. Firstly, he shows Scrooge himself as a lonely boy at school, with his sister who is trying to get him to come home for the holidays. He is then shown himself at a Christmas party at Fezziwig's (where he was apprenticed). The final vision the ghost presents, is that of his former fiancée Belle breaking off their engagement and then her happy with her new husband and family. Stave 3: The second ghost arrives- he is friendly giant who lives wholly in the present. First, he shows Scrooge the city and its inhabitants getting ready for Christmas before taking him to the Cratchits. They, despite being poor and having a meagre feast and an ill child, are happy and enjoying each other's company. Next the ghost takes him to his nephew Fred's house, where games are taking place - one of these is at Scrooge's expense. Finally, he shows him two unkempt children who represent Ignorance and Want. Stave 4: The final ghost is dressed in black and doesn't speak to Scrooge at all, which increases his fear. He shows him people discussing a dead man - they are not upset and seem quite pleased he's gone; people have stolen from him and taken his possessions to a pawn broker. He is also shown a family in his debt celebrating his death. Scrooge is then shown the Cratchits who are subdued following the death of Tiny Tim. Scrooge is suspicious the dead man is him and this is confirmed by the last thing the spirit shows him - a gravestone with his name on it. Stave 5: Scrooge wakes at home on Christmas morning - he is cheerful and pleased he hasn't missed Christmas. First, he sends the Cratchits a turkey for the day. He is pleasant to all: wishes people Merry Christmas, gives the charity collectors a good sum of money, visits Fred and buys presents for all. The following day, he gives Bob a pay rise and becomes 'a second father' to Tiny Tim.	Family - Scrooge is rich but miserable and the Cratchits are poor but content as a family. The Christmas Spirit - Christmas is a time of generosity and kindness. It is even powerful enough to transform Scrooge. Change/Redemption - Scrooge is redeemed by the end of novel. He becomes a better person and others have better lives as a result. Social Responsibility - Highlights the lack of responsibility the rich felt for the poor and the differences between them. Social Class - The characters in different social classes are treated differently throughout the novel and the opportunities they have. Time and Place - Set in London but goes to different places and times with the ghosts. Poverty and Wealth - The poor are presented as characters we should be sympathetic with and the rich as ignorant and uncaring.



Subject terminology	Context	Key Quotations
Pathetic Fallacy - using the weather or setting to mirror the feelings of characters. Foreshadowing - giving clues in a text about something that will happen later. Symbolism - the use of items or symbols to represent bigger ideas. Allusion - an indirect or passing reference to another piece of text. Metaphor - comparing one thing with another by saying it is something that it is not. Simile - comparing one thing to another by using the words 'like' or 'as'. Cyclical structure - the novel ends in the same place as it starts. Key Words Miser - a person who doesn't like to part with their money. Avaricious - someone who is obsessed with money. Redemption - the act of changing for the better. Phantom - ghost. Workhouse - a place the poor were sent to work and live when they were financially unable to support themselves. The conditions were often poor. Pawnbroker - a place where you sell items for money which can be bought back a later stage for an increased price	Biographical: Written by Charles Dickens in 1843 and set in London. Dickens was from a poor family and often commented on Victorian England in his novels. His father was sent to debtor's prison when he was 12 and so he had first-hand experience of the institutions. Society: In Victorian England there was a big divide between rich and poor - many of the poor in London couldn't afford to live or take care of their families. Living conditions for the poor were unhygienic and the NHS did not exist, which meant child mortality rates were high. Life expectancy was only about 40, although increasing and many people died of diseases. Family was the centre of people's lives and the average family had 5-6 children due to increasing birth rates and the need to bring money in. The majority of society in Britain was still very religious and practicing Christians, although many believed in ghosts and therefore loved ghost stories. Some businessmen (like Mr Cadbury) provided entire villages for their workers to ensure they were kept well and have a good quality of life. Many treated their workers badly and with a lack of respect. Britain had no NHS or benefits system to help those less fortunate in society.	'Are there no prisons? Are there no workhouses?' (Scrooge, S1) 'Bah! Humbug!' (Scrooge, S1) 'As solitary as an oyster.' (S1) 'A solitary child neglected by his friends.' (S2) 'I should like to be able to say a word or two to my clerk just now!' (Scrooge S2) 'Another idol has displaced me.' (Belle, S2) 'There never was such a goose!' (Bob, S3) 'I pity him.' (Fred, S3) 'This boy is Ignorance. This girl is Want.' (S3) 'It's likely to be a cheap funeral...' (S4) 'Quiet, very quiet the noisy little Cratchits.' (S4) 'I am not the man I was.' (Scrooge, S4) 'Scrooge was better than his word.' (S5) 'Therefore, I am about to raise your salary.' (Scrooge, S5) 'As so, as Tiny Tim observed, God Bless us everyone!' (S5) My Own Key Quotations:



Year 10 – Cycle 3 – English Language – Paper 1 & 2 Reading Section		
Paper 1: Section A- Question Layout	Paper 2: Section A- Question layout	Assessments:
5 questions on a 20th Century Fictional Text. Q1- 5 marks: basic retrieval List 5 bullet points Q2- 5 marks: retrieval and analysis Include at least 5 quotations Minimal explanation needed Q3- 10 marks: retrieval and analysis Include 5-7 quotations Include subject terminology Q4- 10 marks: retrieval and analysis Include 5-7 quotations Include subject terminology Q5-10 marks: evaluation Include 5-7 quotations Include personal response Include an overview <u>Example:</u> At the start of the extract, the verb 'trembling' in line 3 suggests that Ben is frightened at the situation as he is physically reacting to what he is seeing.	21st Century and 19th Century Non-Fiction 20th Century Text • Question 1 - retrieval [3] • Question 2 - retrieval and analysis [10] 19th Century Text • Question 3 - retrieval [3] • Question 4 - retrieval and analysis [10] Comparison • Question 5 - synthesis [4] • Question 6 - comparison [10] Top Tips ➤ This paper assesses your ability to analyse non-fiction texts from both the 21st century and the 19th century. ➤ They are about a linked theme: for example, the texts might be about Arctic exploration in 1886 and in 2015. ➤ There are a mixture of straightforward retrieval questions and longer ten-mark analysis questions. ➤ Spend 20 minutes on each pair of questions with no more than 5 minutes of this as reading time. ➤ You need to write about how the writer creates effects and how the text type affects how information is presented. ➤ For example, an article is likely to use more facts and statistics and less emotive language than a diary entry.	Mid Cycle: How is a theme presented in the novella? End Cycle: End of year exams. Language Paper 2 and Literature Paper 1. Stretch and Challenge: Read an article of your choice and highlight DAFORREST features in it. Find two articles on similar theme and compare them. Plan write an essay on one of the characters from A Christmas Carol.

All Saints' Academy Mathematics KS4 Curriculum

Cycle	Year 10 Foundation	Year 10 Higher	Year 11	
	Knowledge & Skills	Knowledge & Skills	Foundation	Higher
1	Algebra: - Laws of Indices - Multiplying linear expressions - Factorising Quadratic Expressions - Changing the subject Number: - Standard Form - Error Intervals - Compound Growth and Decay Construction: - Perpendicular bisector of a line - Angle bisector - Shortest distance from point to a line Proportion: - Simplifying ratios and sharing ratios - Best buys	Algebra: - Laws of Indices - Multiplying linear expressions - Factorising Quadratic Expressions - Changing the subject Number: - Standard Form - Indices and Surds - Error Intervals - Compound growth and decay Geometry: - Pythagoras' Theorem and 3D shapes - Fractional and negative enlargements - Similar Shapes and Triangles - Area and Volume Scale Factor Construction: - Perpendicular bisector of a line - Angle bisector - Shortest distance from point to a line Proportion: - Simplifying ratios and sharing ratios - Best buys - Connected Ratios	Revision and preparation for mocks	Higher - Circle Theorems - Quadratic Inequalities - Sine and Cosine Rule - Revision and preparation for mocks
Careers	Quantity Surveyor Geometry: - Area of rectilinear shapes, triangles and circles - Sector perimeter and area - Area of compound shapes - Surface Area and Volume of Prisms - Pythagoras' Theorem	Meteorologist Geometry: - Spheres, pyramids, cones, frustums and composite solids - Sector perimeter and area - Area of compound shapes Algebra: - Algebraic fractions - Constant of proportionality	College options needing Mathematics Revision and preparation for mocks	University options with Mathematics

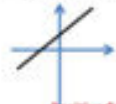
	Algebra: • nth term of linear sequences • Straight Line graphs • Simultaneous Equations Data Handling: • Scatter graphs and Line of Best Fit • averages from tables and grouped intervals	• Straight line graphs • Linear and quadratic sequences • Simple Geometric progressions. • Linear inequalities and inequality regions • Simultaneous Equations – Linear, Quadratic and Circle Equations as one of the equations	
Careers	CAD Technician	Acoustic Consultant	
3	Probability: • Product Rule for Counting • Two-way tables • Venn Diagrams • Tree Diagrams and Conditional Probability Geometry: • Angles in Polygons • Trigonometry Algebra: • Solving Quadratic Equations algebraically and from their graphs	Algebra: • Quadratic, cubic, exponential and reciprocal graphs • Tangent to a circle • Completing the Square • Solving Quadratic Equations algebraically and from their graphs Probability: • Product Rule for Counting • Two-way tables • Venn Diagrams • Tree Diagrams and Conditional Probability Geometry: • Angles in Polygons • Trigonometry • Vectors Statistics: • Cumulative frequency graphs & box plots • Histograms.	Revision and preparation for final examinations.
Careers	Sports Science and Analysis	Statistician	

Year 10 Higher Cycle 3 Mathematics

LO: Recognise types of graphs

Linear
(straight line)

$$y = mx + c$$



Positive Grad

$$y = -mx + c$$



Negative Grad

Types of Graphs

Quadratic

$$y = \dots x^2 + \dots$$



Positive x^2

$$y = -\dots x^2 + \dots$$



Negative x^2

Cubic

$$y = \dots x^3 + \dots$$



Reciprocal

$$y = \frac{1}{x}$$

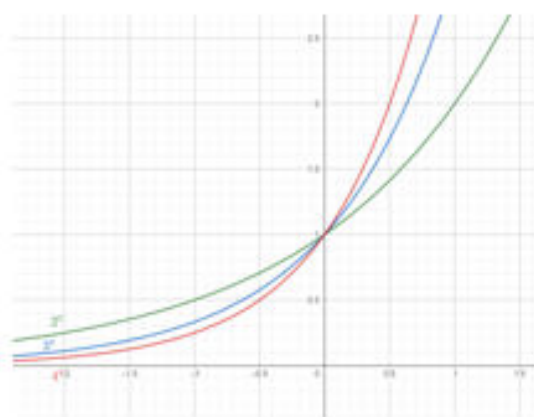


LO: complete the square and solve for x.
Two examples...

$$\begin{aligned} x^2 + 2x - 8 &= 0 \\ (x+1)^2 - 1 - 8 &= 0 \\ (x+1)^2 - 9 &= 0 \\ (x+1)^2 &= 9 \\ x+1 &= \pm\sqrt{9} \\ x &= -3 - 1 \\ x &= -4 \\ x &= 2 \end{aligned}$$

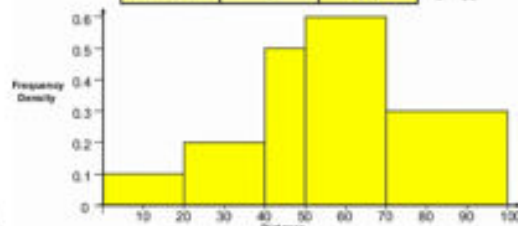
$$\begin{aligned} x^2 - 18x + 80 &= 0 \\ (x-9)^2 - 81 + 80 &= 0 \\ (x-9)^2 - 1 &= 0 \\ (x-9)^2 &= 1 \\ x-9 &= \pm\sqrt{1} \\ x &= -1 + 9 \\ x &= +1 + 9 \\ x &= 8 \\ x &= 10 \end{aligned}$$

LO: recognise exponential graphs

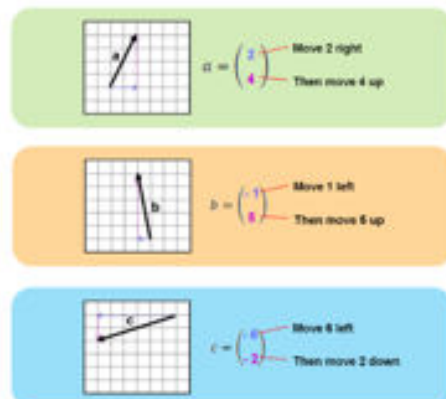


LO: calculate frequency from frequency density histograms

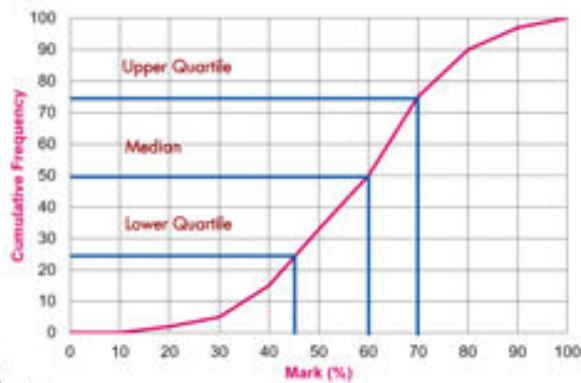
Distance	Frequency	Frequency Density
$0 < t \leq 20$	2	0.1
$20 < t \leq 40$	4	0.2
$40 < t \leq 50$	5	0.5
$50 < t \leq 70$	12	0.6
$70 < t \leq 100$	9	0.3



LO: apply arithmetic understanding of column vectors



LO: understand and use the key values from a cumulative frequency curve



Year 10 Higher Cycle 3 Mathematics

LO: I can find the sum of the Interior angles of a polygon

Interior angle formula - Dodecagon
 n : the number of sides of the polygon

$$S = (n - 2) \cdot 180^\circ$$

$$S = (12 - 2) \cdot 180^\circ$$

$$S = 10 \cdot 180^\circ$$

$$S = 1,800^\circ$$


dodecagon
12 sides

LO: I can use two-way tables

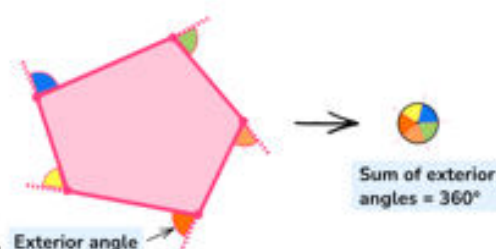
The table shows information about some children.

	Age 11	Age 12	Total
Girls	2	6	8
Boys	c	4	10
Total	d	8	e

A pupil is selected at random.
 What is the probability of selecting a boy?
 Give your answer in its simplest form.

LO: I can find the exterior angles of a polygon

Sum of exterior angles of a polygon = 360°



LO: I can solve Quadratic Equations

$$x^2 - 2x - 8 = 0$$

$$(x - 4)(x + 2) = 0$$

$$x - 4 = 0 \quad x + 2 = 0$$

$$x = 4 \quad x = -2$$

by factorising

by quadratic formula

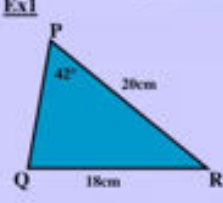
$$ax^2 + bx + c = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

LO: I can apply the Sine Rule to find an angle or side of any triangle

Sine Rule for Angles

Ex1



Find angles Q and R.

$$\frac{p}{\sin P} = \frac{q}{\sin Q} = \frac{r}{\sin R}$$

$$\frac{18}{\sin 42^\circ} = \frac{20}{\sin Q^\circ}$$

$$18 \times \sin Q^\circ = 20 \times \sin 42^\circ$$

$$\sin Q^\circ = \frac{20 \times \sin 42^\circ}{18}$$

$$\sin Q^\circ = 0.743 \dots$$

$$Q^\circ = \sin^{-1} 0.743$$

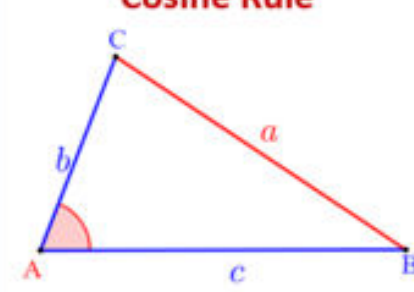
$$Q^\circ = 48^\circ$$

$$R^\circ = 180^\circ - 42^\circ - 48^\circ$$

$$R^\circ = 90^\circ$$

LO: I can apply the Cosine Rule to find an angle or side of any triangle

Cosine Rule



$$a^2 = b^2 + c^2 - 2bc \cos A$$

Year 10 Foundation Cycle 3 Mathematics

LO: I can use Venn diagrams and two way tables to work out probability problems.

The table shows information about some children.

	Age 11	Age 12	Total
Girls	3	a	b
Boys	c	4	10
Total	d	8	e

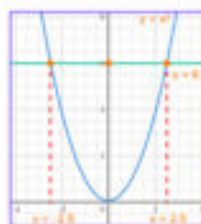
A pupil is selected at random.
What is the probability of selecting a boy?
Give your answer in its simplest form.

LO: I can sketch and plot quadratic curves as well as solve quadratic equations from their graphs.

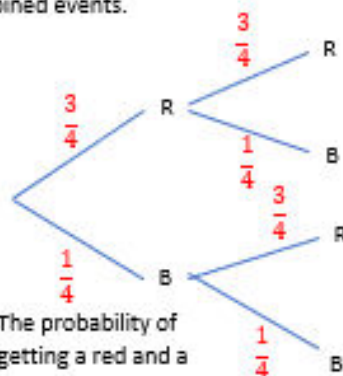
Solving quadratic equations graphically is a useful way to find estimated solutions or roots for quadratic equations or functions by where they intersect other lines.

Eg.
Solve $x^2 = 6$ graphically

The solutions to the quadratic equation for $\log t$ are $x = -2.5, x = 2.5$.



LO: I can use tree diagrams to solve probability problems involving independent and dependent combined events.



The probability of getting a red and a blue:

$$\frac{3}{4} \times \frac{1}{4} + \frac{1}{4} \times \frac{3}{4} = \frac{3}{8}$$

LO: I can solve quadratic equations

$$x^2 - 2x - 8 = 0$$

$$\begin{array}{l} (x-4)(x+2) = 0 \\ x-4 = 0 \quad x+2 = 0 \\ x = 4 \quad x = -2 \end{array}$$

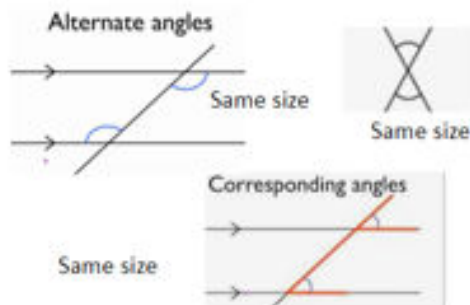
- by factorising

by quadratic
formula

$$ax^2 + bx + c = 0$$

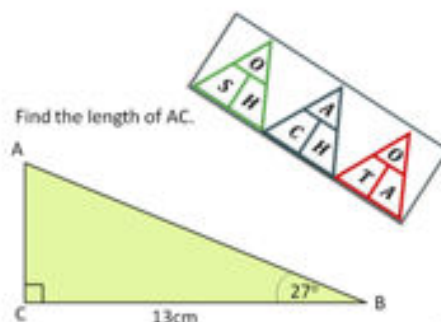
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

LO: I can use angle facts to find missing angles.



Angles in a straight line add to 180
Angles around a point add to 360
Angles in a triangle add to 180

LO: I can use trigonometry to find missing sides and angles in right angled triangles.



KS4 Science Curriculum 2024-25

Year 10				Year 11		
	Knowledge and skills	Enrichment	Curriculum links	Knowledge and skills	Enrichment	Curriculum links
Cycle 1	Topics – Cell Biology, Organisation, Atoms and the Periodic Table, Bonding, Energy, Electricity Assessment: End of topic, small assessments throughout. Careers – Medicine, Chemical engineer, design engineer	‘Street Science’ for students to at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. PE – movement, circulation link to fitness DT – links to digestion and food groups.	Topics – Evolution, Ecology, Chemical Analysis, Chemistry of the Atmosphere, Using Resources, Waves, Magnetism, Space Physics. Assessment: End of topic, small assessments throughout. Mock Examinations. Careers – conservationist, sustainability officer, geologist, astrophysicist	‘Street Science’ for students to take part in experiments at break and lunch.	Maths – throughout all topics. Geography – links to sustainability.
Cycle 2	Topics – Infection and Response, Bioenergetics, Chemical Changes, Energy Changes, Radiation, Matter Assessment: End of topic, small assessments throughout. Careers – Medicine, botanist, chemical engineer, electrician	‘Street Science’ for students to at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. Recognising patterns.	Topics – Revision of all topics, including targeted revision for student specific areas. Assessment: End of topic, small assessments throughout. Mock Examinations.	‘Street Science’ for students to take part in experiments at break and lunch.	Maths – throughout all topics.
Cycle 3	Topics – Homeostasis, Rates of Reaction, Organic Chemistry, Forces Assessment: End of topic, small assessments throughout. Mock Examinations. Careers – medicine, counsellor, chemical engineering, petrochemistry, design engineer	‘Street Science’ for students to take part in experiments at break and lunch. Trips to the Cheltenham Science Festival.	Maths – throughout all topics. Using equations.	Topics – Revision of all topics, including targeted revision for student specific areas. Assessment: End of topic, small assessments throughout. Mock Examinations.	‘Street Science’ for students to take part in experiments at break and lunch.	Maths – throughout all topics. DT – electricity, wiring and household skills.

Homeostasis
<https://www.bbc.com/education/topics/zvnbba2>

Homeostasis maintains optimal conditions for enzyme action and all cell functions.

The regulation of internal conditions of a cell or organism to maintain optimum conditions for function.

Controls in the human body	Blood glucose concentration	These automatic control systems may involve nervous responses or chemical responses.
	Body temperature	
	Water levels	

Nervous System
<https://www.youtube.com/watch?v=M-4VJ1a-ig>

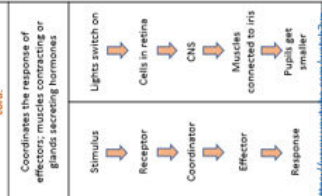
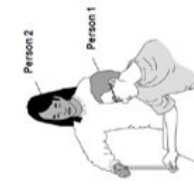
Enables humans to react to their surroundings and to co-ordinate their behaviour

Receptor	Detect stimuli.
Sensory neurone	Long axon carries impulse from receptor to spinal cord.
Synapse	Gap where neurones meet. Chemical message using neurotransmitter.
Relay neurone	Allows impulses to travel between sensory and motor neurones in the spinal cord.
Motor neurone	Long axon carries impulse from receptor to effector.
Effector	Muscle or gland that carries out response.

Reflex arc

Information from receptors passes along cells (neurones) as electrical impulses to the central nervous system (CNS)

The CNS is the brain and the spinal cord.

**Required Practical - Reaction times**

- Person 1 catches the ruler with their thumb and first finger as quickly as possible when it drops.
- Record the number on the ruler that is level with the top of person 1's thumb.
- Have a short rest, then repeat the test several times.
- Record your results on a table.
- Repeat the test with Person 2 catching the ruler and Person 1 dropping it.

Mid-Cycle Assessment**Endocrine system**

Composed of glands which secrete chemicals called hormones directly into the bloodstream.

The blood carries the hormone to a target organ where it produces an effect. Compared to the nervous system effects are slower but act for longer.

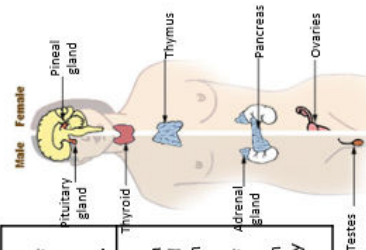
Controlling blood sugar
https://www.youtube.com/watch?v=Ph_5wKtYU0

Monitored and controlled by the pancreas

Too high	(HT only) Too low
Pancreas produces the hormone insulin, glucose moves from the blood into the cells. In liver and muscle cells excess glucose is converted to glycogen for storage.	Pancreas produces the hormone glucagon that causes glycogen to be converted into glucose and released into the blood.

Menstrual Cycle
https://www.youtube.com/watch?v=6MAp_K9AZ8

Follicle stimulating hormone (FSH)	Causes maturation of an egg in the ovary.	(HT) FSH stimulates ovaries to produce oestrogen.
Luteinising hormone (LH)	Stimulates release of an egg.	(HT) Oestrogen stops FSH production and stimulates LH production in pituitary gland.
Oestrogen and progesterone	Maintain uterus lining.	

**Controlling fertility**

In Vitro Fertilisation (IVF) treatment.

Involves giving a mother FSH and LH to stimulate the maturation of several eggs

The eggs are collected from the mother and fertilised by sperm from the father in a laboratory.

The fertilised eggs develop into embryos.

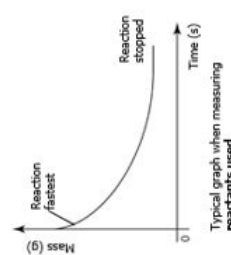
At the stage when they are tiny balls of cells, one or two embryos are inserted into the mother's uterus (womb).

Oral contraceptives	Contain hormones to inhibit FSH production so that no eggs mature.
Injection, implant, skin patch	For slow release of progesterone to inhibit the maturation and release of eggs for months or years.
Barrier methods	Condoms or diaphragms which prevent sperm reaching the egg.
Intrauterine devices	Prevent implantation of an embryo or release a hormone.
Spermicidal agents	Kill or disable sperm.
Abstaining	Avoiding intercourse when an egg may be in the oviduct.
Surgery	Male or female sterilisation.

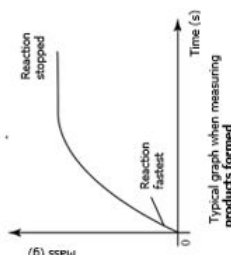
My Biology teacher is:

Rate of Reaction

Mean rate = $\frac{\text{amount of reactant used}}{\text{time taken}}$ or Mean rate = $\frac{\text{amount of product formed}}{\text{time taken}}$



Typical graph when measuring reactants used



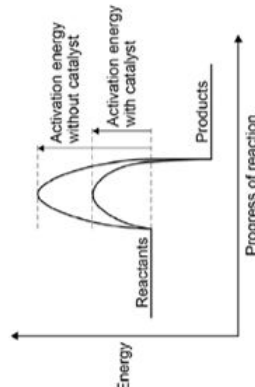
Typical graph when measuring products formed

Collision theory = Reactions occur only when particles collide with enough energy.

Activation Energy = The minimum amount of energy particles need in order to react.

Catalysts

Catalysts increase the rate of chemical reactions but are **not used up** during the reaction. Different reactions need different catalysts. Enzymes act as catalysts in biological systems.



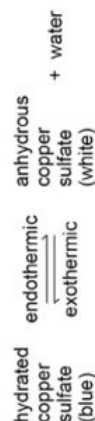
Mid-Cycle Assessment

Reversible reactions

A reversible reaction is a reaction in which the products can also form the reactants.

Shown as: $A + B \rightleftharpoons C + D$

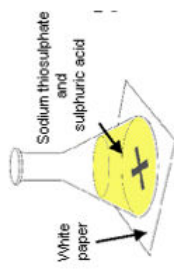
If a reversible reaction is exothermic in one direction, it is endothermic in the opposite direction. The same amount of energy is transferred in each case.



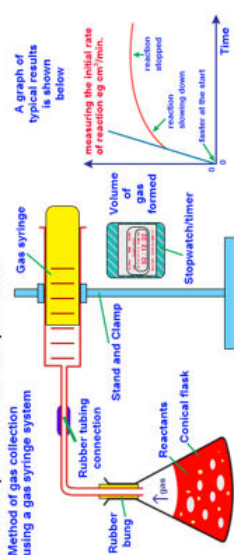
<https://www.youtube.com/watch?v=QvflBPH3zg&index=13&list=PLsora7UstrfYsFLSgTetRVzN6QYvF3jpC>

Required practical: How concentration affects the rate of reaction

1. Measuring colour change



2. Measuring the amount of gas made



<https://www.youtube.com/watch?v=Gf6lV7oAU>

Equilibrium

Equilibrium is reached when the **forward and reverse reactions occur at exactly the same rate**. Needs a **sealed container**.

HIGHER TIER ONLY:

Le Chatelier's Principle: If a system is at equilibrium and a change is made to any of the conditions, then the **system responds to counteract the change**.

If the temperature of a system at equilibrium is increased:

- the amount of products at equilibrium increases for an endothermic reaction.
- the amount of products at equilibrium decreases for an exothermic reaction.

If the concentration of a reactant is increased, more products will be formed.

If the concentration of a product is decreased, more products will be formed.

For reactions of gases:

- an increase in pressure causes the reaction to favour the side with the smaller number of molecules (as shown by the symbol equation for that reaction).
- A decrease in pressure causes the reaction to favour the side with the larger number of molecules (as shown by the symbol equation for that reaction).

My Chemistry teacher is:

Key terms
<https://www.bbc.com/education/topics/tronitd4>
<https://www.youtube.com/watch?v=LC6pXVV1DA&list=PLUg-a7UurFvz081AM5Y9v4N14a1C9>

Scalar quantity: A value with **magnitude (size)** only. e.g. **speed**, **distance**.

Vector quantity: A value with **magnitude (size)** and **direction**. e.g. **all forces**, **displacement**, **velocity**.

Contact forces: Force between objects that are **touching** e.g. friction, air resistance.

Non-contact forces: Force between **separate** objects e.g. gravitational force, magnetic force.

Resultant force: A resultant force is a **single force** that has the **same effect as all the forces** acting on an object.

Gravity and Weight

Weight is the **force of gravity** acting on an object's mass. Measured using a **newtonmeter**.

You must learn this equation and units.

Equation	Symbol equation	Units
Weight = mass x gravitational field strength	$W = m g$	Weight – newtons (N) Mass – kilograms (kg) GFS – newtons per kilogram (N/kg)

The weight of an object may be considered to act at a single point referred to as the object's 'centre of mass'.
The weight of an object and the mass of an object are directly proportional.

Work done

Work is done when an object is **moved through a distance**. When work is done **against friction** there is a **temperature rise**.

You must learn this equation and units.

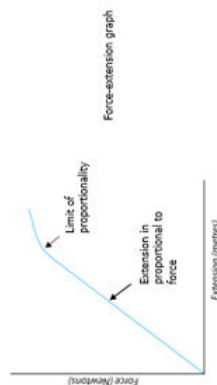
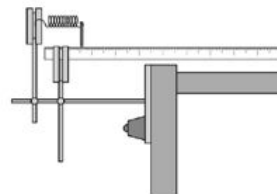
Equation	Symbol equation	Units
Work done = force x distance	$W = F s$	Work done – joules (J) Force – newtons (N) Distance – metres (m)

Forces and elasticity

Elastic deformation	Occurs when a spring is stretched and can then return to its original length .
Inelastic deformation	Occurs when a spring is stretched and its length is permanently altered .
Limit of proportionality	The length a spring can be stretched before it no longer is able to return to its original length . Beyond the limit of proportionality, a force-extension graph is curved.

You must learn this equation and units.

Equation	Symbol equation	Units
Force = spring constant x extension	$F = k e$	Force – newtons (N) Spring constant – newtons per metre (N/m) Extension – metres (m)

**Required practical – investigating the relationship between force and extension for a spring**
<https://www.youtube.com/watch?v=CCF6a8a8uME>


- Hang different masses from a spring and measure the extension of the spring for each mass used
- Convert mass into weight
- Use your results to plot a graph of extension against weight.

My Physics teacher is:

KS4 Religious Studies Curriculum Plan 2024-25

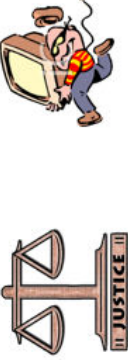
Staff	Year 10 - Edexcel	Year 11 - Edexcel
Careers	Building understanding of world views and philosophical and ethical approaches gives an understanding of how society functions. Leading to careers in the public sector, HR, Social policy design, law, environmental work, International development, working with NGOs etc. home work related tasks will be set at the end of every cycle that link to careers.	
Cycle 1 = 10 weeks	Paper 1 Religion and Society through a study of Christianity Christian Beliefs - The Trinity - The creation of the universe and humanity - The incarnation - The last days of Jesus' life - The nature of salvation - Christian eschatology - The problem of evil and suffering - Solutions to the problem of evil and suffering Matters of Life and Death - Origins and value of the universe - The sanctity of life - The origins and value of human life - The issue of abortion - Death and the afterlife - Non-religious arguments against life after death - Euthanasia - The natural world and issues raised	Intro Living the Muslim life - - The Ten obligatory acts in Shi'a Islam - The Shahadah - Salah - Sawm - Zakah and Khums - Hajj - Jihad - Celebrations and commemorations Intro Peace and Conflict - - Peace - Peace making - Conflict - Pacifism - The just war theory - Holy war - Weapons of mass destruction - Issues surrounding conflict
Assess Week - (1 week)	GCSE style assessment, based upon these topics. Assessment and mark scheme in shared area.	Mocks and GCSE style assessment, based upon these topics Assessment and mark scheme in shared area.
Review - (1 week)	Green pen against mark scheme, peer review then teacher assessment followed by consolidation of common misconceptions.	Green pen against mark scheme, peer review then teacher assessment followed by consolidation of common misconceptions.
Cycle 2 = 10 weeks	Intro Living the Christian life - Christian worship - Sacraments - The nature and purpose of prayer - Pilgrimage - Celebrations - The future of the Church - The Church in the local community - The worldwide Church Intro Marriage and the family - - Marriage - Sexual relationships - Families - Roles within the family - Family in the local parish	Revision Start revision for Mocks - Matters of life and death - Sanctity of life and associated teaching Cycle 2 -FULL MOCKS - Christian Beliefs and Practices, plus marriage and family revision Revision from the post mock point will be based upon weak areas from full mocks for each class, below is a suggested outline. This will be confirmed in Dept. meetings and agreed with HqE Cycle 2 - Structured Revision Start with Muslim Beliefs - 6 Beliefs and 5 Roots - Allah and Prophets - Holy books and Angels - Al-Qadr and Aqirah Living the Muslim Life revision - The 10 obligatory Acts and Shahadah

	• The family in the parish today • Family planning Divorce • Men and women in the family • Gender prejudice and discrimination	Salah and Sawm Zakat and Khums - and Hajj Jihad and celebrations and festivals
Assess Week - (1 week) Review - (1 week)	GCSE style assessment, based upon this topic. Assessment and mark scheme in <u>shared area</u>. Green pen against mark scheme, peer review then teacher assessment followed by consolidation of common misconceptions.	GCSE style assessment, based upon this topic. Assessment and mark scheme in <u>shared area</u>. Green pen against mark scheme, peer review then teacher assessment followed by consolidation of common misconceptions.
Cycle 3 = 10 weeks	Introduction to Paper 2 - Religion, <u>Peace and Conflict</u> through a study of <u>Islam</u> Muslim Beliefs - • The six beliefs of Islam • The five roots of <u>Usul ad-Din</u> in Shi'a Islam • The nature of Allah • <u>Risalah</u> • <u>Malakah</u> • Muslim Holy books • Al-Qadr • Akhirah Intro Crime and punishment in <u>Islam</u> - • Justice • Crime • Good, <u>evil</u> and suffering • Punishment • Aims of punishment • Forgiveness • Treatment of criminals • The death penalty	
Assess Week - (1 week) Review - (1 week)	GCSE style assessment, based upon this topic. Assessment and mark scheme in <u>shared area</u>. Green pen against mark scheme, peer review then teacher assessment followed by consolidation of common misconceptions.	Assessment based upon Paper 1. Green pen against mark scheme, peer review then teacher assessment followed by consolidation of common misconceptions.



Year 10 RE – Cycle 3 – Paper 2 – Islam –Section 2 –Crime and Punishment from a Muslim perspective-Edexcel



Justice	Crime	Muslim attitudes to good evil and suffering	The nature of punishment
Justice is when fair treatment is applied. - Allah is seen to treat people justly and Muslims believe they should do the same. - Muslims believe they will be judged after death on the Day of Judgement on their actions in life and they should try to live their lives in a just way. - Justice is seen within Islamic beliefs and practices. - Justice for the victim of a crime means that they feel their crime has been dealt with appropriately. - Punishment can be seen as a form of justice	A crime is an offence committed against the law of a country. - The causes of crime include: poverty, politics, racism, drugs, upbringing and low self-esteem. - Many Muslim individuals and groups, such as the Muslim Chaplains Association and Mosaic, work to try to tackle the causes of crime 	Muslims believe the ideas of good, evil and suffering are directly related to each other. - Muslims believe that all humans are born with the ability to understand the difference between good and evil. - Muslims believe good actions will help them achieve their goal of al-Jannah in Akhirah, and evil actions will work to prevent it and lead them to Jahannam. - Muslims accept there are various reasons to explain why humans suffer, including the belief that Allah has a plan and suffering is part of the plan. 	Punishment means imposing a penalty on a person who has committed a crime. - Shari'ah law is the code of behaviour used by Muslims, especially in Islamic countries, which is consulted on legal matters. - Punishment is important to Muslims because they believe it creates a stable society, it is fair and just, and it is prescribed by Allah. - The Qur'an provides teachings and guidance on punishments. - Punishment can be seen as a form of justice and is needed in society 
The aims of punishment	Forgiveness	Criminals and human rights	The death penalty
There are four main recognised aims of punishment: reformation, deterrence, retribution and protection. - There are various strengths and weaknesses of each aim of punishment. - Muslims believe punishment is important and support the aims of punishment. - The Qur'an contains guidance on why punishment is important. - Shari'ah law is used by Muslims to decide punishment in some situations and it demonstrates the aims of punishment through its guidance	- Islam teaches that forgiveness and reconciliation are important after conflict, including in situations where crimes have been committed. - Muslims believe that Allah is forgiving, merciful and compassionate and that they should try to be too. - The Qur'an gives examples of forgiveness, showing it is important. - Restorative justice is compatible with ideas within Islam. - Muslims believe forgiveness is important both for the victim and the offender	- Islam is a religion of peace and justice. - Muslims believe that the treatment of prisoners in a fair and just way is important. - Most Muslims do not accept torture of prisoners today. - Muslims believe prisoners are entitled to human rights and a fair trial. - Atheists and Humanists hold similar views to Muslims, although they justify their views using different reasons. - Atheists and Humanists are supporters of human rights and the fair treatment of all prisoners	Capital punishment is used in some Islamic countries that follow Shari'ah law. - The purposes of capital punishment include retribution, repentance, closure for the victim's family, protection of society and deterrence. - Not all Muslims support the use of capital punishment. - The Qur'an suggests that there are other options for the punishment of serious crimes. - Atheists and Humanists do not support the death penalty.

Key Terms:

Justice – due allocation of reward and punishment, the maintenance of right **Laws** – rules made by Parliament and enforceable by the courts
Hadith – sayings of the Prophet Muhammad
Vicegerent – someone working as God's steward or representative on earth
Civil rights – the rights of citizens to political and social freedom and equality
Alien – a foreigner, especially one who is not a naturalised citizen of the country where he or she is living
Malicious – having or showing a desire to cause harm to someone

Stretch and challenge: How do these beliefs relate to Muslim practice in the 21st Century around the world?

Homework – You will be expected to be able to answer these questions and in addition work through your homework timetable, making revision mind maps and answering exam style questions.

Key Stage 4 Physical Education

	Year 10	Year 11	Enrichment	Curricular links
	Leadership skills and implementing and developing tactics	Evaluating performance and demonstrating improvement		
Cycle 1	- Evaluate <u>performance</u> - Embedding and continue to develop techniques into a <u>competitive game</u> - Use and develop tactics in various <u>situations</u> - Analyse and evaluate skills as a leader and official – officiating games with <u>support</u> Assessment: skills learnt used within a game type of activity/<u>routine</u>	- Evaluate <u>performance and demonstrate improvement</u> - Embedding and continue to develop techniques into a <u>competitive game</u> - Use and develop tactics in various <u>situations</u> - Analyse and evaluate skills as a leader and official – officiating games with <u>support</u> Assessment: skills learnt used within a game type of activity/<u>routine</u>	Football Netball Rugby Trampolining Fitness club Dance Basketball	HRE links Science
Cycle 2	- Evaluate <u>performance</u> - Embedding and continue to develop techniques into a <u>competitive game</u> - Use and develop tactics in various <u>situations</u> - Analyse and evaluate skills as a leader and official – officiating games with <u>support</u> Assessment: skills learnt used within a game type of activity	- Evaluate <u>performance and demonstrate improvement</u> - Embedding and continue to develop techniques into a <u>competitive game</u> - Use and develop tactics in various <u>situations</u> - Analyse and evaluate skills as a leader and official – officiating games with <u>support</u> Assessment: skills learnt used within a game type of activity	Football Netball Rugby Trampolining Fitness club Dance Basketball	
Cycle 3	- Evaluate <u>performance</u> - Embedding and continue to develop techniques into a <u>competitive game</u> - Use and develop tactics in various <u>situations</u> - Analyse and evaluate skills as a leader and official – officiating games with <u>support</u> Assessment: skills learnt used within a game type of activity	- Evaluate <u>performance and demonstrate improvement</u> - Embedding and continue to develop techniques into a <u>competitive game</u> - Use and develop tactics in various <u>situations</u> - Analyse and evaluate skills as a leader and official – officiating games with <u>support</u> Assessment: skills learnt used within a game type of activity	Cricket Rounders Athletics Tennis Softball	Measurements – Maths

Year 10 - Tactical Development/Leadership

Focus

Through the implementation, students will be able to understand, use and recall the following knowledge relating to cricket:

- Application of techniques in a range of competitive contexts
- Develop spatial awareness to outwit opposition
- Understanding of strengths & weaknesses
- Understanding of specific terminology and game rules.

Cricket

- Batting – Drive shot
- Batting – Cut/Pull shot
- Bowling – Pace and Spin
- Fielding - Sending/Receiving
- Fielding – Positioning
- Wicket Keeping

Rounders

- **Key skills:**
- Throws - overarm, underarm
- Batting - placement, variation
- Long barrier and retrieval
- Bowling - spin, speed
- Catching

Athletics

Throwing – Shot, discus, javelin and hammer. The objective is to throw each implement as far as possible.

High Jump – The objective of the high jump is to clear a bar supported on uprights having taken off from one leg. Aim to achieve maximum height at take-off.

Long Jump – The toe of the jumper's shoe, must be behind the leading edge of the take-off board.

Triple jump- Use a **Hop**, a **step** and a **Jump**.

Sprint – 100m, 200m and 400m. The aim is to finish in the quickest time. 100m is a straight run. 200m includes a bend and you have a staggered start. 400m is one full lap of an official sized track and you have a staggered start. For all sprints you **MUST** stay in your lane.

Distance Running – Middle 800m and 1,500m

Long distance – 3000m 5000m and 10,000m

Relay

- 4x100m – 4 runners, who each run 100m
- Runner 1 starts with the baton who runs to runner
 - 2 where the baton is exchanged, who runs to runner
 - 3 and exchanges the baton, who runs to runner
 - 4 and exchanges the baton, who finishes the race.

*Stick Option 1
subject
Curriculum
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