Year 8
Mid-Year Assessment Revision Topics

27th – 31st January 2025

Stockport Academy
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Contents

Biology

There will be 1 Science paper, 60 minutes long. 20 minutes will assess Biology knowledge.

Topics included: Digestion and Nutrition and Plants and Photosynthesis

Digestion and Nutrition:

- ❑ Name the 7 nutrients found in food and describe what each one is needed for
- ❑ Interpret and make calculations from nutrient values on food labels
- ❑ State the factors that affect the energy requirement of a person
- ❑ State what is meant by the term "balanced diet"
- ❑ Describe some diseases linked to nutrient deficiency and imbalances of energy intake
- ❑ Describe how energy is released from food by respiration and how it is used in the body
- ❑ Describe the difference between the 2 carbohydrates starch and sugar
- ❑ Describe how the chemical tests for fat, protein, starch, and sugar are carried out and their positive results
- ❑ State the names of the organs in the digestive system and describe the function of each one
- ❑ Explain the difference between mechanical and chemical digestion
- ❑ Describe the role of gut bacteria in the digestion process
- ❑ Describe how the intestines are adapted for efficient absorption of digested substance by diffusion
- ❑ Name the enzymes that digest carbohydrates, fats, and proteins
- ❑ Evaluate the model used to explain digestion and absorption in the small intestine
- ❑ Describe how Enzymes work and how temperature affects them.

Plants and Photosynthesis:

- ❑ Identify and label a root hair cell
- ❑ Describe how roots take up minerals, nutrients and water from the soil
- ❑ Describe photosynthesis in a word equation representing products and reactants
- ❑ Label the internal parts of a leaf
- ❑ Describe how leaves are adapted to carry out photosynthesis
- ❑ State where stomata are found and what they do
- ❑ Identify hazards and risks and suggest appropriate ways to reduce the risks
- ❑ Describe how to test a leaf for starch
- ❑ Describe the role of the xylem and phloem
- ❑ Describe how plants affects the atmospheric carbon dioxide levels
- ❑ Give examples of pollinators
- ❑ State what is meant by food security
- ❑ Describe why pollinators are important for food security

There is also a synoptic element meaning any Biology topics from Year 7 can be included.

Useful resources:

Knowledge organisers and curriculum details can be found at Stockport Academy > Information > Curriculum > Science (stockport-academy.org)

Students can access revision materials at Seneca Learning. Free Homework & Revision for A Level, GCSE, KS3 & KS2 (senecalearning.com)

Chemistry

There is 1 Science paper, 60 minutes long. 20 minutes will assess Chemistry knowledge.

Topics included: Atoms and the Periodic table.

- ❑ Draw and label an atom
- ❑ Understand the differences between atoms, elements, and compounds.
- ❑ Recognise and interpret chemical symbols for elements and write them correctly
- ❑ Describe some properties common to the metal elements and to the non-metal elements
- ❑ Draw the electron configuration for the first 20 elements of the periodic table
- ❑ Interpret formulae for compounds and write them correctly.
- ❑ Represent chemical reactions using particle diagrams to show the rearrangement of atoms.
- ❑ Understand the law of conservation of mass and apply it to reactions
- ❑ Represent chemical reactions using formulae and using (symbol) equations.
- ❑ Explain why elements are grouped together in terms of electron structure
- ❑ Write word equations for the reactions of group 1 with oxygen and water
- ❑ Describe patterns of reactivity in group 1 and group 7
- ❑ Understand how patterns in reactions can be predicted with reference to the periodic table.
- ❑ Recognise anomalies on graphs and know how to deal with them when drawing lines of best fit
- ❑ Describe and recognise a proportional relationship on a graph or in data
- ❑ Describe patterns in secondary data, using the data points to back up statements made

There is also a synoptic element meaning any Chemistry topics from Year 7 can be included.

Useful resources:

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English

Paper One is 45 minutes and assesses students' **reading ability**.

Students will be asked to respond to one question on the Shakespeare text they have read this term: **Richard III**.

Students will be given an extract from the play, and the question will focus on either a character or theme from the play. For example:

How is the character of Richard presented in this extract?

Or

How does Shakespeare present ideas about ambition in the play?

The criteria below outlines the skills students are assessed on:

- The student can present ideas about the text and give reasons for the ideas which form a developed and coherent response.
- The student can provide a detailed explanation of the impact of the writer's methods.
- The student can select a range of relevant evidence/references from different parts of the text to support ideas.
- The student can use a range of appropriate subject terminology/vocabulary specific to the text type and specifically refers to the writer's intent.

Paper Two is 45 minutes and assesses students' **writing ability**.

Students will be asked to complete a creative writing task. Either descriptive writing or a narrative (story). For example:

Write a description of a magical place.

Or

Write a story about a character who is lost.

The criteria below outlines the skills students are assessed on:

- A developed response with structure and vocabulary chosen for effect.
- Accurate use of a range of punctuation beyond full stops, commas, capital letters, and apostrophes.
- Accurate spelling of all words including some ambitious vocabulary.
- Accurate use of paragraphs which are shaped for effect.

Revision Materials

- Knowledge Organiser
- Revision booklet – to be provided by teacher
- BBC Bitesize

French

There will be two papers each 30 minutes long.

1. Receptive (Listening and Reading)
2. Productive (Writing)

Both papers will cover the following units of study: -

Y8 Revision Booklet

These are the units of work covered in Year 8 and a reminder of the y7 units too. Once you have revised each unit, you can tick it off the list. This booklet contains exercises covering all topics and links to quizzes.

✓	Holidays
	Destinations
	Transport
	Accommodation
	Activities
	Your usual holidays
	Describing a holiday in the past
	Where you would like or will go
	Going out and Staying in
	Free time activities
	Future/Weekend plans
	Asking someone out
	Going to a party
	Favourite TV program/Film/Music
	Health and Fitness
	Describing your routine
	How healthy you are
	Recommendations and resolutions for healthy living
	At the Doctor's

✓	y7 Content
	Greetings and Introductions
	Family
	School
	Where I live

	Linguistic structures
	Infinitives
	Present tense verbs
	Reflexive verbs
	The Perfect tense
	The Future tense
	Negatives
	Opinions and justifications
	Agreement of adjectives
	Connectives
	Quantifiers
	Time expressions

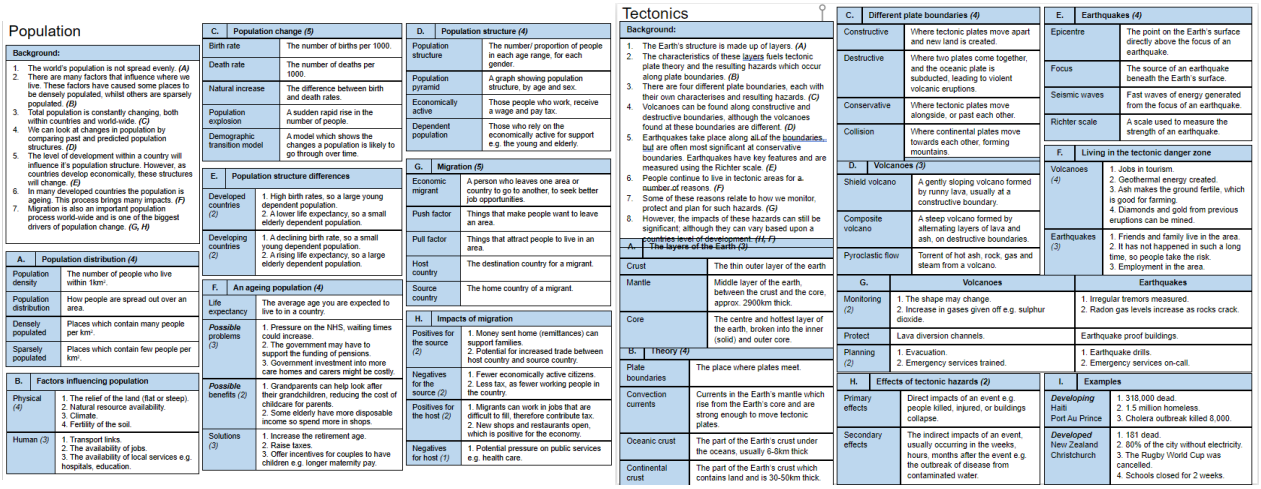
Geography

There will be one paper, 60 minutes long.
It will contain questions relating to the following units:

- Tectonics
- Population

Useful resources:

- Knowledge organisers can be found here: [Stockport Academy > Information > Curriculum > Humanities (stockport-academy.org))]



Population

Background:

1. The world's population is not spread evenly. *(A)*
2. There are many factors that influence where we live. These factors have caused some places to be densely populated, whilst others are sparsely populated. *(B)*
3. Total population is constantly changing, both within countries and world-wide. *(C)*
4. We can look at changes in population by comparing past and predicted population structures. *(D)*
5. The level of development within a country will influence it's population structure. However, as countries develop economically, these structures will change. *(E)*
6. In many developed countries the population is ageing. This process brings many impacts. *(F)*
7. Migration is also an important population process world-wide and is one of the biggest drivers of population change. *(G, H)*

A. Population distribution *(4)*

Population density	The number of people who live within 1km².
Population distribution	How people are spread out over an area.
Densely populated	Places which contain many people per km².
Sparsely populated	Places which contain few people per km².

B. Factors influencing population

Physical *(4)*	1. The relief of the land (flat or steep). 2. Natural resource availability. 3. Climate. 4. Fertility of the soil.
Human *(3)*	1. Transport links. 2. The availability of jobs. 3. The availability of local services e.g. hospitals, education.

C. Population change *(5)*

Birth rate	The number of births per 1000.
Death rate	The number of deaths per 1000.
Natural increase	The difference between birth and death rates.
Population explosion	A sudden rapid rise in the number of people.
Demographic transition model	A model which shows the changes a population is likely to go through over time.

E. Population structure differences

Developed countries *(2)*	1. High birth rates, so a large young dependent population. 2. A lower life expectancy, so a small elderly dependent population.
Developing countries *(2)*	1. A declining birth rate, so a small young dependent population. 2. A rising life expectancy, so a large elderly dependent population.

F. An ageing population *(4)*

Life expectancy	The average age you are expected to live to in a country.
Possible problems *(3)*	1. Pressure on the NHS, waiting times could increase. 2. The government may have to support the funding of pensions. 3. Government investment into more care homes and carers might be costly.
Possible benefits *(2)*	1. Grandparents can help look after their grandchildren, reducing the cost of childcare for parents. 2. Some elderly have more disposable income so spend more in shops.
Solutions *(3)*	1. Increase the retirement age. 2. Raise taxes. 3. Offer incentives for couples to have children e.g. longer maternity pay.

D. Population structure *(4)*

Population structure	The number/ proportion of people in each age range, for each gender.
Population pyramid	A graph showing population structure, by age and sex.
Economically active	Those people who work, receive a wage and pay tax.
Dependent population	Those who rely on the economically active for support e.g. the young and elderly.

G. Migration *(5)*

Economic migrant	A person who leaves one area or country to go to another, to seek better job opportunities.
Push factor	Things that make people want to leave an area.
Pull factor	Things that attract people to live in an area.
Host country	The destination country for a migrant.
Source country	The home country of a migrant.

H. Impacts of migration

Positives for the source *(2)*	1. Money sent home (remittances) can support families. 2. Potential for increased trade between host country and source country.
Negatives for the source *(2)*	1. Fewer economically active citizens. 2. Less tax, as fewer working people in the country.
Positives for the host *(2)*	1. Migrants can work in jobs that are difficult to fill, therefore contribute tax. 2. New shops and restaurants open, which is positive for the economy.
Negatives for host *(1)*	1. Potential pressure on public services e.g. health care.

Tectonics

Background:

1. The Earth's structure is made up of layers. *(A)*
2. The characteristics of these layers fuels tectonic plate theory and the resulting hazards which occur along plate boundaries. *(B)*
3. There are four different plate boundaries, each with their own characterises and resulting hazards. *(C)*
4. Volcanoes can be found along constructive and destructive boundaries, although the volcanoes found at these boundaries are different. *(D)*
5. Earthquakes take place along all of the boundaries, but are often most significant at conservative boundaries. Earthquakes have key features and are measured using the Richter scale. *(E)*
6. People continue to live in tectonic areas for a number of reasons. *(F)*
7. Some of these reasons relate to how we monitor, protect and plan for such hazards. *(G)*
8. However, the impacts of these hazards can still be significant, although they can vary based upon a countries level of development. *(H, I)*

A. The layers of the Earth *(3)*

Crust	The thin outer layer of the earth
Mantle	Middle layer of the earth, between the crust and the core, approx. 2900km thick.
Core	The centre and hottest layer of the earth, broken into the inner (solid) and outer core.

B. Theory *(4)*

Plate boundaries	The place where plates meet.
Convection currents	Currents in the Earth's mantle which rise from the Earth's core and are strong enough to move tectonic plates.
Oceanic crust	The part of the Earth's crust under the oceans, usually 6-8km thick
Continental crust	The part of the Earth's crust which contains land and is 30-50km thick.

C. Different plate boundaries *(4)*

Constructive	Where tectonic plates move apart and new land is created.
Destructive	Where two plates come together, and the oceanic plate is subducted, leading to violent volcanic eruptions.
Conservative	Where tectonic plates move alongside, or past each other.
Collision	Where continental plates move towards each other, forming mountains.

D. Volcanoes *(3)*

Shield volcano	A gently sloping volcano formed by runny lava, usually at a constructive boundary.
Composite volcano	A steep volcano formed by alternating layers of lava and ash, on destructive boundaries.
Pyroclastic flow	Torrent of hot ash, rock, gas and steam from a volcano.

E. Earthquakes *(4)*

Epicentre	The point on the Earth's surface directly above the focus of an earthquake.
Focus	The source of an earthquake beneath the Earth's surface.
Seismic waves	Fast waves of energy generated from the focus of an earthquake.
Richter scale	A scale used to measure the strength of an earthquake.

F. Living in the tectonic danger zone

Volcanoes *(4)*	1. Jobs in tourism. 2. Geothermal energy created. 3. Ash makes the ground fertile, which is good for farming. 4. Diamonds and gold from previous eruptions can be mined.
Earthquakes *(3)*	1. Friends and family live in the area. 2. It has not happened in such a long time, so people take the risk. 3. Employment in the area.

G.

	Volcanoes	Earthquakes
Monitoring *(2)*	1. The shape may change. 2. Increase in gases given off e.g. sulphur dioxide.	1. Irregular tremors measured. 2. Radon gas levels increase as rocks crack.
Protect	Lava diversion channels.	Earthquake proof buildings.
Planning *(2)*	1. Evacuation. 2. Emergency services trained.	1. Earthquake drills. 2. Emergency services on-call.

H. Effects of tectonic hazards *(2)*

Primary effects	Direct impacts of an event e.g. people killed, injured, or buildings collapse.
Secondary effects	The indirect impacts of an event, usually occurring in the weeks, hours, months after the event e.g. the outbreak of disease from contaminated water.

I. Examples

Developing Haiti Port Au Prince	1. 318,000 dead. 2. 1.5 million homeless. 3. Cholera outbreak killed 8,000.
Developed New Zealand Christchurch	1. 181 dead. 2. 80% of the city without electricity. 3. The Rugby World Cup was cancelled. 4. Schools closed for 2 weeks.

- Fluency sheets (each pupil has these stuck in their books at the start of each unit).
- They must know about a named example of a tectonic hazard. We studied the Haiti earthquake and the earthquake and tsunami in Japan. For this they must learn the location, date and magnitude one of these earthquakes, the type of plate boundary it is on, a primary and secondary effect and an immediate and long term response.
- SENECA key stage 3 geography, the tectonics and population units will be helpful. We have set these for all Y8 classes to work through. Their log in for SENECA is the same as last year or pupils can log in using Microsoft 365, which is their school email address and password.
- Exercise books are very useful as they contain everything that has been taught. Pupils can take their books home, but must remember to bring them in when they have geography lessons. They are no use if left in the classroom in a box all the time!

History

The reformation

- Catholicism vs. Protestantism
- Henry VIII
- Why did Henry break with Rome

Elizabethan Religion

- Changes to the Church
- The religious Settlement
- The Catholic Threat
- The Armada

Information Technology

There will be a 30-minute exam based off the topics you have done so far on E-safety, Microbits and Python programming.

E-Safety and legislation

•Describe the potential consequences of inappropriate content, contact and conduct

•Can explain how legislation affect online activities

•Explain how to protect online identify and privacy on a range of platforms

•Pupils should know not to provide material to others that they would not want shared further and not to share personal material which is sent to them.

•Pupils should know that sharing and viewing indecent images of children (including those created by children) is a criminal offence which carries severe penalties including jail.

•Pupils should know their rights, responsibilities, and opportunities online, including that the same expectations of behaviour apply in all contexts, including online.

Programming

- Use of variables
- Use of functions
- Use of loops
- Use of if statements
- Begin to use user defined functions
- Create programming code to solve problems in both block and text based

Useful resources

KS3 Computer Science - BBC Bitesize KS3 Computer Science - BBC Bitesize

and

Knowledge organisers on school's website

and

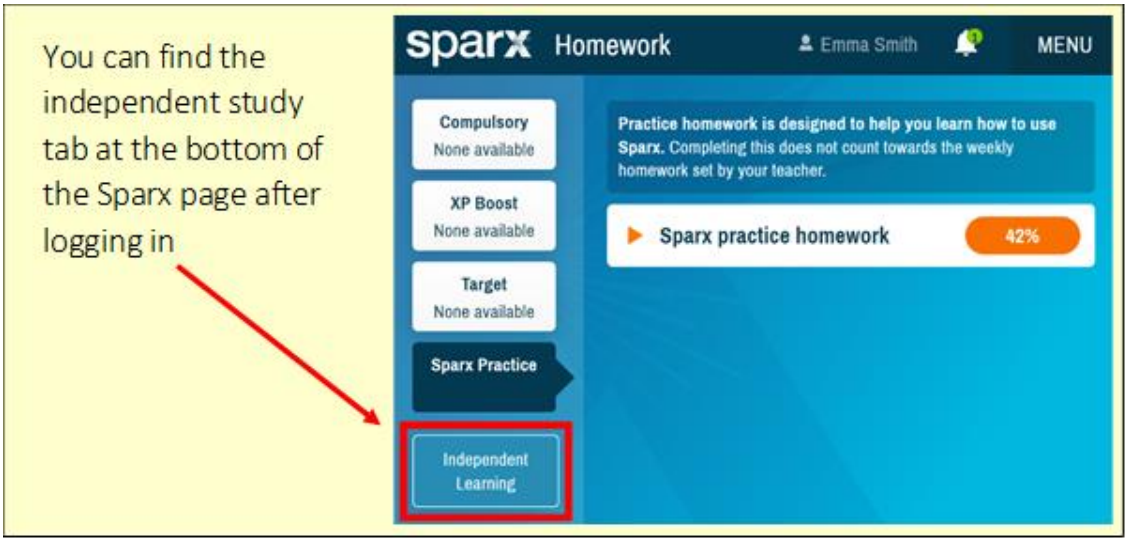
Students can access revision materials at Seneca Learning. Free Homework & Revision for A Level, GCSE, KS3 & KS2 (senecalearning.com) - look for ks3 computing.

Mathematics

One paper – 60 minutes – Calculator

Below are the topics to revise for the assessment and the KPI (Key Performance Indicator) number. By going onto the independent study section on Sparx (shown below), you can use the Sparx codes to get questions and videos to help you revise the topics. If you have any questions, please ask your teacher.

Topic		Sparx Codes
❑ 8.01	Powers and Roots	M135, M608
❑ 8.02	Prime Factorisation	M322, M823, M108, M365, M227, M698
❑ 8.03	Rounding	M111, M431, M994, M131, M878
❑ 8.04	Fractions	M939, M410, M671, M601, M835, M931, M157, M197, M110, M265
❑ 8.05	Solving equations 1	M707, M509, M387, M554, M813, M795, M531, M957
❑ 8.06	Coordinates and basic graphs	M618, M622, M797
❑ 8.07	Units of measure	M772, M530, M761, M774 (units) M892, M627
❑ 8.08	Angles in Parallel Lines	M163, M818, M319, M606, M393



Physics

There is 1 Science paper, 60 minutes long. 20 minutes will assess Physics knowledge.

Topics Included: Light and Sound

- ❑ Describe the properties of light and light waves
- ❑ Describe the different things that can happen when waves hit a surface
- ❑ Draw accurate ray diagrams
- ❑ Describe the different effects on surfaces by interactions of light
- ❑ Draw reflection diagrams
- ❑ Describe reflected images
- ❑ Describe specular and diffuse reflection
- ❑ Describe how refraction takes place using key words and phrases.
- ❑ Draw the pathway that light takes through a glass block
- ❑ Draw light ray diagrams to show how refraction can affect how we see objects
- ❑ Label the parts of the eye
- ❑ Use ray diagrams to show how images are formed in pinhole cameras and the eye
- ❑ Describe how an image is formed and how we see
- ❑ Describe how the eye focuses on near and far objects
- ❑ Explain the cause of long and short sightedness and how this can be corrected
- ❑ Describe the 'visible spectrum'
- ❑ Relate the colours of the visible spectrum to wavelength
- ❑ Explain why we see objects as a particular colour.
- ❑ Describe and explain how coloured filters change white light.
- ❑ Predict the colours of coloured objects in coloured light
- ❑ Describe heat transfer by radiation
- ❑ State the surfaces that are the best at absorbing and emitting radiation
- ❑ Explain everyday observations using an understanding of absorption and emission of radiation
- ❑ Label the main features of a wave diagram
- ❑ Compare light and sound waves
- ❑ Describe what happens when waves meet
- ❑ Describe how pitch and loudness of sounds are determined
- ❑ Interpret oscilloscope traces
- ❑ Describe what happens when sound meets a surface
- ❑ Calculate the speed of sound in air, identifying anomalies
- ❑ Calculate uncertainty in the results and suggest sources of error
- ❑ Describe how and explain why the speed of sound varies in different media in terms of particles
- ❑ Describe how sounds are heard
- ❑ Explain what is meant by 'hearing range' and how this differs with age and in different animals
- ❑ Describe what is meant by ultrasound
- ❑ Describe uses of ultrasound
- ❑ Explain how the sound waves are used in given contexts

There is also a synoptic element meaning any Physics topics from Year 7 can be included.

Useful resources:

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40 Minutes

Islam

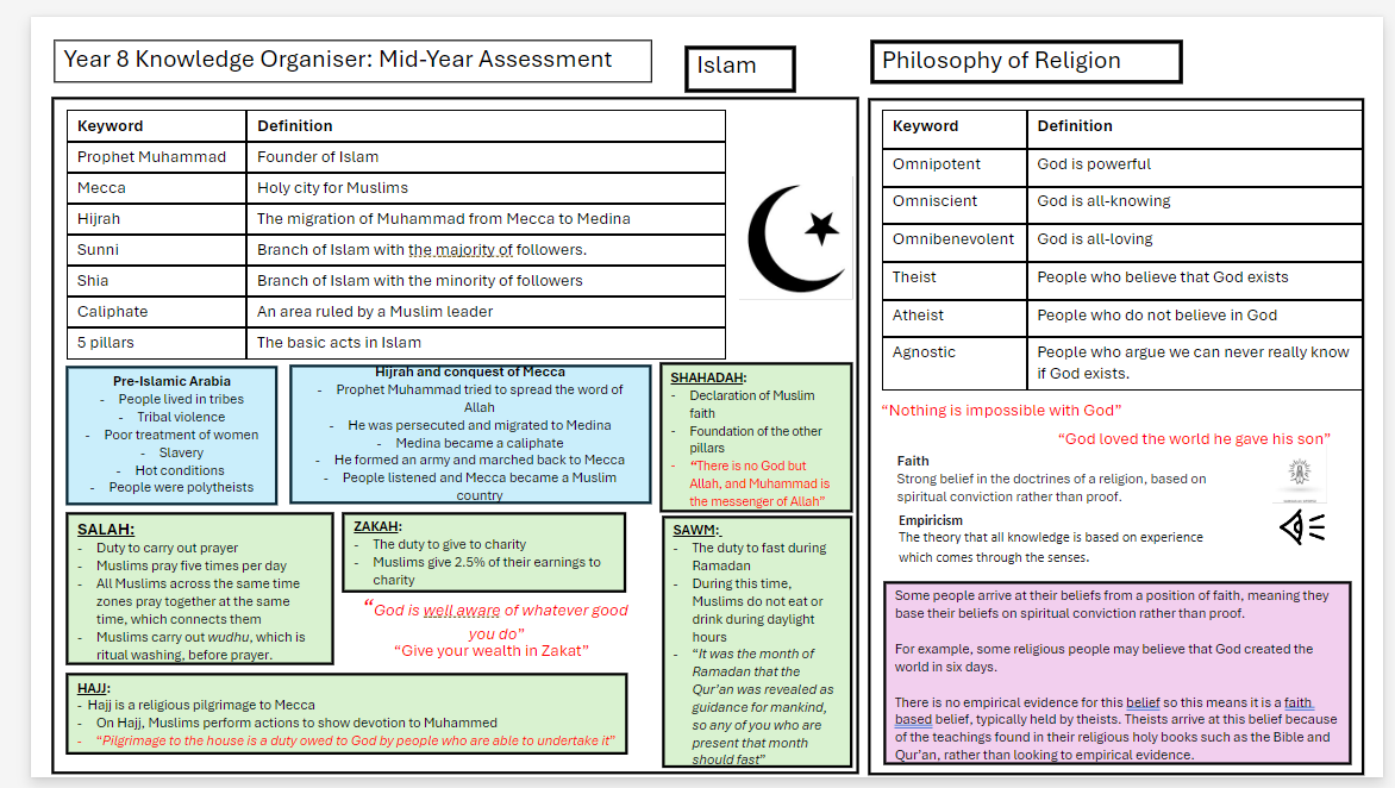
- Holy Books
- Conquest of Mecca
- 5 Pillars

Philosophy of Religion

- Theism, Atheism, Agnostic
- Faith and Empiricism

You should use the below to help you revise:

- ❖ Knowledge organisers
- ❖ Exercise books



Year 8 Knowledge Organiser: Mid-Year Assessment

Islam

Keyword	Definition
Prophet Muhammad	Founder of Islam
Mecca	Holy city for Muslims
Hijrah	The migration of Muhammad from Mecca to Medina
Sunni	Branch of Islam with the majority of followers.
Shia	Branch of Islam with the minority of followers
Caliphate	An area ruled by a Muslim leader
5 pillars	The basic acts in Islam

Pre-Islamic Arabia
- People lived in tribes
- Tribal violence
- Poor treatment of women
- Slavery
- Hot conditions
- People were polytheists

Hijrah and conquest of Mecca
- Prophet Muhammad tried to spread the word of Allah
- He was persecuted and migrated to Medina
- Medina became a caliphate
- He formed an army and marched back to Mecca
- People listened and Mecca became a Muslim country

SHAHADAH:
- Declaration of Muslim faith
- Foundation of the other pillars
- "There is no God but Allah, and Muhammad is the messenger of Allah"

SALAH:
- Duty to carry out prayer
- Muslims pray five times per day
- All Muslims across the same time zones pray together at the same time, which connects them
- Muslims carry out *wudhu*, which is ritual washing, before prayer.

ZAKAH:
- The duty to give to charity
- Muslims give 2.5% of their earnings to charity

"*God is well aware of whatever good you do*"
"Give your wealth in Zakat"

SAWM:
- The duty to fast during Ramadan
- During this time, Muslims do not eat or drink during daylight hours
- "*It was the month of Ramadan that the Qur'an was revealed as guidance for mankind, so any of you who are present that month should fast*"

HAJJ:
- Hajj is a religious pilgrimage to Mecca
- On Hajj, Muslims perform actions to show devotion to Muhammed
- "*Pilgrimage to the house is a duty owed to God by people who are able to undertake it*"

Philosophy of Religion

Keyword	Definition
Omnipotent	God is powerful
Omniscient	God is all-knowing
Omnibenevolent	God is all-loving
Theist	People who believe that God exists
Atheist	People who do not believe in God
Agnostic	People who argue we can never really know if God exists.

"Nothing is impossible with God"

"God loved the world he gave his son"

Faith
Strong belief in the doctrines of a religion, based on spiritual conviction rather than proof.

Empiricism
The theory that all knowledge is based on experience which comes through the senses.

Some people arrive at their beliefs from a position of faith, meaning they base their beliefs on spiritual conviction rather than proof.

For example, some religious people may believe that God created the world in six days.

There is no empirical evidence for this belief so this means it is a faith based belief, typically held by theists. Theists arrive at this belief because of the teachings found in their religious holy books such as the Bible and Qur'an, rather than looking to empirical evidence.

30 Minutes

- 10 Commandments
- Punishment
- Law making
- Gender
- Sexuality

You should use the below to help you revise:

- ❖ Knowledge organisers
- ❖ Exercise books

YR8 Mid Year KO

Topics covered: Criminals law and society and Identity.

Keywords	Definitions
Law	A set of rules set in a country or place for people to follow
Punishment	Things that can be used if someone breaks the law.
House of Commons	The place where parliament sits and creates/debates laws
Knife Crime	The harm or threatening behaviour caused by holding or using a sharp instrument
Gender	How a person presents themselves whether it is through clothing, social interaction or appearance
Sexual Orientation	The gender(s) that someone is attracted to romantically, emotionally and sexually.
Homophobia	the fear or dislike of someone, based on prejudice or negative attitudes, beliefs or views about lesbian, gay or bi people
Discrimination	the unjust or prejudicial treatment of different categories of people.

The age of criminal responsibility in the UK is 10. Usually someone would go to a young offenders institute if convicted of an offence until they are 18

Punishments are based on three main theories, retribution (The act of seeking justice for the victim), reformation (the act of changing someone's behaviour for the better) and Deterrence (The act of putting someone off committing a crime)

Knife crime has risen in the UK over the past 10 years, many believing that "everyone carries a knife" to tackle this there has been increases in community outreach also police stop and search

Large percentages of people that identify as part of the LGBTQA+ within schools feel that more could be done to tackle discrimination as of report in 2019.

Spanish

There will be two papers each 30 minutes long.

1. Receptive (Listening and Reading)
2. Productive (Writing)

Both papers will cover the following units of study: -

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	Free time activities
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	Asking someone out
	Going to a party
	Favourite TV program/Film/Music
	Health and Fitness
	Describing your routine
	How healthy you are
	Recommendations and resolutions for healthy living
	At the Doctor's

✓	y7 Content
	Greetings and Introductions
	Family
	School
	Where I live

	Linguistic structures
	Infinitives
	Present tense verbs
	Reflexive verbs
	The Perfect tense
	The Future tense
	Negatives
	Opinions and justifications
	Agreement of adjectives
	Connectives
	Quantifiers
	Time expressions

Revision Timetable

Day	Morning	Afternoon	Review points
Saturday			
Sunday			
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Day	Morning	Afternoon	Review points
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