# Year 9 Mid-Year Assessment Revision Topics

20<sup>th</sup> – 24<sup>th</sup> January 2025





Part of United Learning

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## Biology

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

Topics included: Plants and Photosynthesis

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 and 8 can be included.

Useful resources:

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

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

## Chemistry

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

Topics include: Reactivity and Energetics and rates

Reactivity:

- Use the periodic table to work out numbers of protons, neutrons, and electrons for any given element
- Explain why most atoms react, but group 0 do not
- Describe what an ion is and draw a diagram to show how atoms become ions
- Use charges to write formula for ionic compounds
- □ Calculate relative formula mass for given compounds
- □ Write equations for the reactions of metals with acids
- Describe the test for hydrogen gas and the positive result
- □ Write word equations for the reactions of metal oxides and metal carbonates with acids
- Describe the test for carbon dioxide and the positive result
- □ Name the salt produced from a range of neutralisation reactions
- □ Know the formula for common acids hydrochloric, sulphuric, and nitric
- □ Write word or symbol equations for displacement and neutralisation reactions
- □ Use the reactivity series to predict if a chemical reaction will take place
- **L** Explain how metals can be extracted from their ores using carbon
- □ Identify oxidation and reduction in given equations
- **D** Explain how differences in reactivity can be used to produce a voltage and how this can be varied
- Define an alloy and explain why they are often more useful than pure metals
- □ Link the properties of metals to their uses

#### Energetics and rates:

- Describe some ways of measuring the rate of a reaction
- □ Identify independent, dependent and control variables from a given hypothesis
- □ Represent rate of reaction data on a graph
- Describe and explain the effect of concentration and surface area on the rate of a reaction
- □ Process and plot secondary data and draw lines of best fit, which may be curves
- U Write conclusions for data collected or provided, using the data to back up any statements
- Explain what a catalyst is and how it works
- Explain what endothermic and exothermic reactions are and recognise them given information regarding temperature changes in a reaction
- Suggest how to improve equipment when investigating temperature changes and explain how these improve the data
- Define the term combustion
- □ Write word and symbol equations for combustion reactions
- Compare complete and incomplete combustion
- Explain what is meant by the term thermal decomposition
- □ Write word and/or symbol equations to represent the thermal decompositions of metal carbonates
- Calculate masses in a reaction using the law of conservation of mass
- Describe the lab tests for identifying carbon dioxide, water, and oxygen

There is also a synoptic element meaning that Chemistry topics from Year 7 and 8 may also be included.

#### Useful resources:

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

Students can access revision materials at Sparx Science by logging onto your Sparx Science account

## English

Paper One is <u>45 minutes</u> and assesses students' reading ability.

Students will be asked to respond to one question on one of the short stories they read last term: **Amir and George**.

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 Amir presented in this story?

Or

## How does the writer present ideas about growing up throughout the text?

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.

chosen for effect.

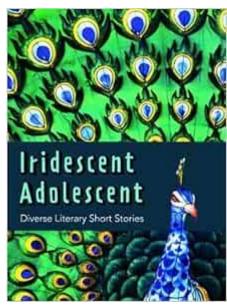
- Accurate use of a range of punctuation beyond full stops, commas, capital letters, and apostrophes.
- Accurate spelling of all words including some ambitious vocabulary.

## French

There will be two papers each 45 minutes long.

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

Both papers will cover the following units of study: -



Revision Materials

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



Holidays	
Destinations	
Transport	
Accommodation	Linguistic structures
Activities	Infinitives
Your usual holidays	Present tense verbs
Describing a holiday in the past	Reflexive verbs
	The Perfect tense
Where you would like or will go	The Future tense
Going out and Staying in	Negatives
Free time activities	Opinions and justifications
Future/Weekend plans	Agreement of adjectives
Asking someone out	Connectives
Going to a party	Quantifiers
Favourite TV program/Film/Music	Time expressions

Useful resources: -

- Knowledge Organisers
- United Learning Fluency Booklets
- Sentence Builders
- Language Nut
- BBC Bitesize

## Geography

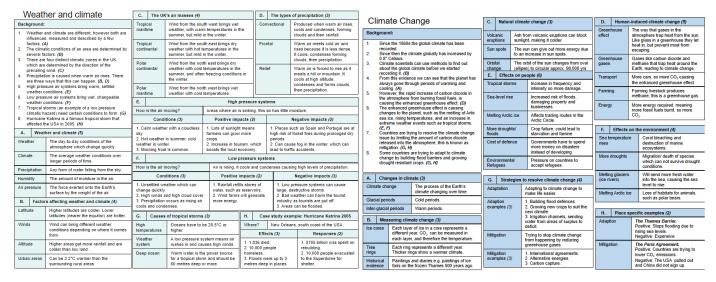
There will be one paper, 60 minutes long.

It will contain questions relating to the following units:

- Weather & climate
- Climate change

#### Useful resources:

- Knowledge organisers for both units are available here: <u>Stockport Academy > Information > Curriculum ></u> <u>Humanities (stockport-academy.org)</u>)
- Fluency sheets (each pupil has these stuck in their books at the start of each unit).



- Pupils must know about a named example of a weather event. We studied Cyclone Idai. For this they must learn at least specific facts about the tropical storm (for example the city most affected), 2 impacts (for example death toll) and 2 responses (for example search & rescue).
- Pupils must learn the different types of evidence that show climate change is taking place and the causes of climate change (both natural and human).
- SENECA key stage 3 geography, the weather and climate change units will be helpful. We have set these for all Y9 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

## World War 1

- Long Term Causes
- Short Term Causes
- The Western Front
- The Treaty of Versailles

## The Suffrage Movement

- Suffragist Movement
- War time

## Information Technology and Enterprise

One 30 minute exam

#### 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
- Testing / Errors

Enterprise

- Entrepreneurs
- Market research
- Research methods
- Business promotion methods

Useful resources

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

Or knowledge organisers on school's website

Or for Enterprise, the students exercise book or episodes of Dragon's Den.

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

Торіс		Sparx Codes
9.01	Decimal Manipulation	U417, U478, M462, U735, U127, U293, U453, U868, U976
9.02	Estimation and Limits of Accuracy	U480, U298, U731, U965, U225, U657, U587, U108, U301
9.03	Related Calculations	U735
9.04	HCF and LCM of Large Numbers	U211, U751, U529, U236, U739, U250
9.05	Fraction Calculations	U736, U692, U793, U475, U224, U544, U538, U881, U916, U163
9.06	Algebraic Manipulation	M795, U613, M830
9.07	Index Laws	U105, U622, U103, U437, U685, U457, U824
9.08	Standard Form	M719, M678, U264, U290
9.09	Expanding and Factorising	U179, U365, U768, U178, U963
9.10	Expressions and Substitution	U201, U585, U144, U637, U530



### Physics

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

Topics include: Forces in Action and Matter

Forces in action:

- □ Identify levers, pivots and forces applied
- Define a 'moment' and calculate it using data supplied
- □ Explain, in terms of moments, what happens when an object is balanced
- □ Calculate forces needed or distance from the pivot required to achieve balance
- Define the term 'simple machine' and give some examples
- Calculate work done and give the unit
- □ Calculate averages, ignoring anomalies, and round them to the same decimal places as original data
- □ Recognise and describe a proportional relationship
- Describe what is meant by 'elastic deformation' and elastic objects
- □ Explain what is meant by the 'elastic limit' of an object and recognise this on a graph
- □ Use Hooke's Law to calculate force, extension, or spring constants
- Describe the difference between reproducible data and reproducible conclusions and relate this to the Hooke's Law practical

#### Matter:

- Describe the arrangement, movement, and forces of attraction in solids, liquids, and gases
- □ Link the properties of solids, liquids, and gases to particle theory e.g., why a gas and liquid can flow
- **D** Explain what is meant by density and use densities of substances to predict what will float or sink
- Explain Brownian motion and diffusion
- □ Use Density = mass ÷ volume to calculate any of the values given the other two
- Describe pressure in liquids and how it changes with depth
- □ Use the pressure = Force / Area calculation to calculate pressure, force, or area
- □ Explain the basic principles of hydraulic systems
- $\hfill\square$  Name the forces involved in floating and sinking
- Describe and explain what happens to the weight of all objects in water, including those that float and sink
- □ Explain why objects float or sink in terms of forces
- Describe atmospheric pressure
- □ Explain effects of the atmosphere and changes to pressure
- Explain why atmospheric pressure varies with altitude

There is also a synoptic element meaning that Physics topics from Year 7 and 8 may also be included.

#### Useful resources:

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

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## **Religious Studies**

#### 40 Minutes

#### Islam

- 5 Pillars
- Mosque

#### Life and Death

- Abortion
- Natural law
- Situation Ethics

#### You should use the below to help you revise:

- Knowledge organisers
- Exercise books

#### Knowledge Organiser | Islam

Keyword	Definition	Angels: <u>Angel Jibril</u> – Messenger of the birth of Isa to Miriam.	of Allah, delivered the message about
5 pillars of Islam	The set of rules and guidance for a Muslim to live by.	Angel Mikai'L – Angel of fo	orgiveness and protector of holy
Shahada	Declaration of faith		
		Stages of Hajj: 1. Ihram – The clothing that Mus	slims wear to go on Hajj and the preparations that
Salah	Prayer 5 times a day	take place beforehand 2. Tawaf – Walking around the Kaaba 7 times anti – clockwise 3. Sa'y – Walking between Safa and Marwah 7 times	
Zakat	Dnating 2.5% to charity		he place Muhammad gave his final sermon arge pillars to physically reject the devil or goat for Eid ul Adah
Sawm	Fasting, the month of fasting is		
	called Ramadan	Features of a Mosque –	Evil and Suffering –
Hajj	Holy Pilgrimage to Mecca, Muslims should try and complete this once in their lifetime.	<ol> <li><u>Qiblah</u> wall</li> <li>Minarets</li> <li>Minbar</li> <li>Mihrab</li> </ol>	The day of judgement is where all your good deeds are weighed against your bad deeds for Allah to judge, there are many stages to this
Akhira	Day of judgement when a Muslim dies		process which may mean your time in <u>Barzakh</u> is peaceful or torture

Knov	vledge Orga	niser   Life	& Death
What's the right thing to do?	Situation Ethics		Abortion: A procedure to end a pregnancy.
<ul> <li>Philippa Foot was the thinker behind the Trolley problem. Whether to pull lever and kill 1 person or leave the train to hit 5 people.</li> <li>This is a moral dilemma which questions people's ethical choices.</li> </ul>	do "the most loving the focused on the use of For example, in the is woman's life is at risk the most loving thing	cher said that we should hing" in any situation and f the word <b>Agape.</b> sue of <b>Abortion</b> if the c from giving birth maybe	Pro-Life people would say that abortion is wrong because many believe that life starts at conception (when an egg and sperm meet). Thomas Aquinas' First primary precept to 'Preserve Life' also goes against abortion. Christians and Muslims believe in the sanctity of life –
Natural Moral Law Thomas Aquinas was the Christian thinker	<ul><li>abortion.</li><li>This focuses on Qual</li></ul>	ity of Life.	this means that life is special (sacred) and a gift from God.
behind the Natural Moral Law. There were 5 primary <b>precepts</b> (rules) that humans must	Criticisms of Situation E	thics	A <b>Christian</b> might say " <mark>do not kill</mark> ". This is one of the Ten Commandments from the <b>Bible</b> .
Preserve Life in Live in an Ordered society Order Worship God - In Educate Children - In Beproduce - In	Slippery Slope: For some things we need important guidelines for important choices, as just doing things on a case-by-case basis could be counter intuitive.     Is "love" a good guiding principle? What love means to one person might be different to another-instead we should have clear,		They might also say "God created mankind in our own image" which suggests that humans look like God – so ended a human lifeis like ending God's life and destroying God's creation. A Muslim might say "do not take a life which Allah has made sacred". This is from the Qur'an.
To assist with these Aquinas developed Secondary precepts which help people to live by the Primary ones. <u>F.g. Ed</u> ucate children by sending them to school, and <b>Preserve Life</b> by	concise rules <ul> <li>Some people use "lov things - Scientists usi medicine.</li> </ul>	ve" to do "unloving" ing animals for testing	They might also say "If anyone kills a person, it would be as if he killed the whole of mankind" which shows that killing is not permitted in Islam, and causing one
not having an abortion.	<u>Euthanasia</u>	Capital Punishment	that killing is not permitted in islam, and causing one death is as terrible as killing everyone.
<u>Criticisms of Natural Moral Law</u> • Some Christians interpret these rules in an <b>absolutist</b> way - they want to follow them completely, so that may create a moral dilemma for them if they, for example, need	Types of Euthanasia; Voluntary Euthanasia, Active Euthanasia, Passive Euthanasia and Involuntary	This is the legally authorised killing of someone as punishment for a crime. Known as the	Pro-choice people would say that there are circumstances that need to be considered, such as the woman's health – is her life at risk? Joseph Fletcher's Idea of doing the "most lowing thing" is important here.
an abortion due to health reasons. • <u>Taking into account</u> the whole person • They are based on a Christian idea of God (not everyone is Christian).	Euthanasia. Euthanasia is illegal in the UK under the suicide act of 1961.	Death Penalty. Examples: Electric Chair and Lethal injection	Everyone has the "right to life" in the UDHR- this includes the pregnant woman, who's life may be at risk; Some people are not ready to have a child; Some people may be pregnant due to assault; some people may fear than another child will cause poverty for their

PSHE

#### 30 Minutes

- Consent
- Grooming
- Coercion
- Bullying
- Technology
- Airbrushing

You should use the below to help you revise:

- Knowledge organisers
- Exercise books

	YR9 Mid year		
Keywords	Definitions	media and Self worth.	
Consent	The act of giving someone permission to do something, it has to be given freely and willingly	The age of consent to sexual activity in the UK is 16 for everyone.	
Harassment	Physically or mentally contacting someone with the intent to cause harm or distress in any reasonable person	If you suspect someone is being harassed or coerced you could contact a trusted adult, spe	
Coercion	Persuading someone to do something through force or threats		
Grooming	The act of gaining <u>someones</u> trust to form a relationship to exploit them mentally, financially, physically or sexually	Changes in someone's usual behaviour could be a big indicator that someone is being groomed.	
Pornography	Explicit content that aims to stimulate sexual excitement by the displaying the act of sex or simulated sex.	Three types of porn that are illegal are revenge porn, Child porn and Extreme Porn	
Validation	Recognition that a persons feelings or opinions are to the social norm	Someone might use social media as a place to seek validation, due to the use of filters on the	
Self Esteem	The was someone feels about themselves	platform and use of AI to create the "Ideal"	
Airbrushing	Altering an image to make it an idealised version of someone or something	version of oneself it can affect self esteem hence people seek validation on there.	

## Spanish

There will be two papers each 45 minutes long.

- 3. Receptive (Listening and Reading skills)
- 4. Productive (Writing skills)

Both papers will cover the following units of study: -

Holidays	
Destinations	
Transport	
Accommodation	Linguistic structures
Activities	Infinitives
Your usual holidays	Present tense verbs
Describing a holiday in the past	Reflexive verbs
Where you would like or will go	The Perfect tense The Future tense
Going out and Staying in	Negatives
Free time activities	Opinions and justifications
Future/Weekend plans	Agreement of adjectives
Asking someone out	Connectives
Going to a party	Quantifiers
Favourite TV program/Film/Music	Time expressions

Useful resources: -

- Knowledge Organisers
- United Learning Fluency Booklets
- Sentence Builders
- Language Nut
- BBC Bitesize

## Revision Timetable

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

Day	Morning	Afternoon	Review points
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Day	Morning	Afternoon	Review points
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