

Year 9

Mid-Year Assessment Revision

Topics

10th – 16th December 2025



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Contents

Biology	3
Chemistry	4
English	5
French	6
Geography	7
History	8
World War 1	8
Information Technology and Enterprise	10
Mathematics	11
Physics	12
Religious Studies	13
Spanish	15
Revision Timetable	16

Biology

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

Topics included: Ecology

- ☐ Identify food chains within a food web
- ☐ Draw and interpret pyramids of number
- ☐ Describe how decay occurs and the factors that can speed it up
- ☐ Explain why decay is important in food chains
- ☐ Describe how the animals in a food web are interdependent
- ☐ Describe the factors that affect the population of single organism
- ☐ Suggest what may happen to other members of the food web when the population of one member changes
- ☐ Explain the term 'bioaccumulation' and describe the impact it can have on consumers at the top of food chains
- ☐ Describe how the numbers of predator and prey animals are linked
- ☐ Explain the importance of insects such as bees to our food security
- ☐ Describe a sampling method to estimate populations
- ☐ Classify organisms given appropriate information
- ☐ State the features of the 5 main chordate groups
- ☐ Describe and explain the adaptations of organisms that make them better competitors
- ☐ Explain why genetic variation in a species can drive natural selection
- ☐ Describe and explain the evidence for evolution
- ☐ Describe the factors that may lead a species to become extinct
- ☐ Describe the importance of biodiversity and some of the methods used to maintain it

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 [Independent Study | Students | Stockport Academy](#)

Students can access revision materials by logging onto your Sparx science account. [Free Homework & Revision for A Level, GCSE, KS3 & KS2 \(senecalearning.com\)](#)

Chemistry

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

Topics include: 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
- ☐ Explain how metals can be extracted from their ores using carbon
- ☐ Identify oxidation and reduction in given equations
- ☐ 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

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 [Independent Study | Students | Stockport Academy](#)

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

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

Students will be asked to respond to one question on one of the Crime Fiction texts they read last term: **The Speckled Band**.

Students will be given a question that will focus on either a character or theme from the text. For example:

How is the character of Sherlock Holmes presented in this story?

Or

How does the writer present ideas about power 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.



Revision Materials

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

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

Students will be asked to complete a transactional writing task. For example:

Write a letter to the Principal arguing your opinion on the following statement:

“I think homework is integral to ensuring young people are ready to revise independently in their exams by Y11”

The criteria below outlines the skills students are assessed on:

- Accurate use of persuasive rhetoric.
- 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.



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: -

✓	Relationships with Family and Friends		Linguistic structures
	Character descriptions and relationships		Infinitives
	Free time activities in the past and future		Present tense verbs
	A good friend		Reflexive verbs
	My ideal partner		The Perfect tense
	When you were younger		The Future tense
	Festivals and Traditions		Negatives
	Food and drink		Opinions and justifications
	Festivals around the world		Agreement of adjectives
	Celebrations in the past and future		Connectives
			Quantifiers
			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: [Stockport Academy > Information > Curriculum > Humanities \(stockport-academy.org\)\)](https://stockport-academy.org/)
- Fluency sheets (each pupil has these stuck in their books at the start of each unit).

Weather and climate		C. The UK's air masses (4)		D. The types of precipitation (3)	
Background: 1. Weather and climate are different, however both are influenced, measured and described by a few factors (A) 2. The climatic conditions of an area are determined by several factors (B) 3. There are four distinct climatic zones in the UK, which are determined by the direction of the prevailing wind (C) 4. Precipitation is caused when warm air rises. There are three ways that this can happen (B, D) 5. High pressure air systems bring warm, settled weather conditions (E) 6. Low pressure air systems bring wet, changeable weather conditions (F) 7. Tropical storms (an example of a low pressure climatic hazard) need certain conditions to form (G) 8. Hurricane Katrina is a famous tropical storm that affected the USA in 2005 (H)	Tropical maritime	Wind from the south west brings wet weather, with warm temperatures in the summer, but mild in the winter.	Convective	Produced when warm air rises, cools and condenses, forming clouds and then rainfall.	
	Tropical continental	Wind from the south east brings dry weather with hot temperatures in the summer, but mild in the winter.	Frontal	Warm air meets cold air and rises because it is less dense. It cools, condenses forming clouds, then precipitation.	
	Polar continental	Wind from the north east brings dry weather with cold temperatures in the summer, and often freezing conditions in the winter.	Relief	Warm air is forced to rise as it meets a hill or mountain. It cools at high altitude, condenses and forms clouds, then precipitation.	
	Polar maritime	Wind from the north west brings wet weather with cold temperatures.			
	E. High pressure systems	How is the air moving?	Areas where air is sinking, this air has little moisture.	Conditions (3)	Positive impacts (2) 1. Lots of sunlight means farmers can grow more crops. 2. Increase in tourism, which boosts the local economy. Negative impacts (2) 1. Places such as Spain and Portugal are at high risk of forest fires during prolonged dry periods. 2. Can cause fog in the winter, which can lead to traffic accidents.
A. Weather and climate (5)		F. Low pressure systems			
Weather	The day-to-day conditions of the atmosphere which change quickly.	How is the air moving?	Air is rising, it cools and condenses causing high levels of precipitation.	Conditions (3)	Positive impacts (2) 1. Rainfall refills stores of water, such as reservoirs. 2. Wind farms will generate more energy. Negative impacts (3) 1. Low pressure systems can cause large, destructive storms. 2. Bad weather can harm the tourist industry as tourists are put off. 3. Areas can be flooded.
Climate	The average weather conditions over longer periods of time.			G. Causes of tropical storms (3)	H. Case study example: Hurricane Katrina 2005
Precipitation	Any form of water falling from the sky.			High temperatures	Where? New Orleans, south coast of the USA.
Humidity	The amount of moisture in the air.			Weather system	Effects (3) 1. 1,836 died. 2. 10,000 people homeless. 3. Floods were up to 3 metres deep in places.
Air pressure	The force exerted onto the Earth's surface by the weight of the air.			Deep ocean	Responses (2) 1. 5,105 billion was spent on rebuilding. 2. 10,000 people evacuated to the Superdome for shelter.
B. Factors affecting weather and climate (4)					
Latitude	Higher latitudes are colder. Lower latitudes (nearer the equator) are hotter.				
Winds	Wind can bring different weather conditions depending on where it comes from.				
Altitude	Higher areas get more rainfall and are colder than low land.				
Urban areas	Can be 2.2°C warmer than the surrounding rural areas.				

Climate Change		C. Natural climate change (3)		D. Human-induced climate change (8)	
Background: 1. Since the 1960s the global climate has been recorded. 2. Since then the climate globally has increased by 0.8° Celsius. 3. Climate scientists can use methods to find out about the global climate before we started recording it (B) 4. From this evidence we can see that the planet has always gone through periods of warming and cooling (A) 5. However, the rapid increase of carbon dioxide in the atmosphere from burning fossil fuels, is causing the enhanced greenhouse effect (D) 6. The enhanced greenhouse effect is causing changes to the planet, such as the melting of Arctic sea ice, rising temperatures, and an increase in extreme weather events such as tropical storms (E, F) 7. Countries are trying to resolve the climate change issue by limiting the amount of carbon dioxide released into the atmosphere, this is known as mitigation (G, H) 8. Some countries are trying to adapt to climate change by building flood barriers and growing drought resistant crops (G, H)	Volcanic eruptions	Ash from volcanic eruptions can block sunlight, making it colder.	Greenhouse effect	The way that gases in the atmosphere trap heat from the sun. Like glass in a greenhouse they let heat in, but prevent most from escaping.	
	Sun spots	The sun can give out more energy due to an increase in sun spots.	Greenhouse gases	Gases like carbon dioxide and methane that trap heat around the Earth, leading to climate change.	
	Orbital change	The orbit of the sun changes from oval (ellipses) to circular approx. 90,000 yrs.	Transport	More cars, so more CO ₂ , causing the enhanced greenhouse effect.	
	E. Effects on people (6)	Tropical storms	Increase in frequency and intensity so more damage.	Farming	Farming livestock produces methane, this is a greenhouse gas.
	Sea-level rise	Increased risk of floods, damaging property and businesses.	Energy	More energy required, meaning more fossil fuels burnt, so more CO ₂ .	
Melting Arctic ice	Affects trading routes in the Arctic Circle.				
More droughts/floods	Crop failure, could lead to starvation and famine.				
Cost of defence	Governments have to spend more money on disasters instead of developing.				
Environmental refugees	Pressure on countries to accept refugees.				
A. Changes in climate (3)		G. Strategies to resolve climate change (4)		F. Effects on the environment (4)	
Climate change	The process of the Earth's climate changing over time.	Adaptation	Adapting to climate change to make life easier.	Sea temperature rises	Coral bleaching and destruction of marine ecosystems.
Glacial periods	Cold periods.	Adaptation examples (3)	1. Building flood defences. 2. Growing new crops to suit the new climate. 3. Irrigation channels, sending water from areas of surplus to deficit.	More droughts	Migration/death of species which can not survive drought conditions.
Inter-glacial periods	Warm periods.	Mitigation	Trying to stop climate change from happening by reducing greenhouse gases.	Melting glaciers (ice rivers)	Will send more fresh water into the sea, causing the sea level to rise.
Ice cores	Each layer of ice in a core represents a different year. CO ₂ can be measured in each layer, and therefore the temperature.	Mitigation examples (3)	1. International agreements. 2. Alternative energies. 3. Carbon capture.	Melting Arctic ice	Loss of habitats for animals, such as polar bears.
Tree rings	Each ring represents a different year. Thicker rings show a warmer climate.				
Historical evidence	Paintings and diaries e.g. paintings of ice fairs on the frozen Thames 500 years ago.				

- 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

There will be one paper, 60 minutes long.

World War 1

- Long Term Causes - MAIN
- Short Term Causes – The Assassination of Archduke Franz Ferdinand
- The Western Front – Conditions, features of a trench
- The Treaty of Versailles – the terms

The Suffrage Movement

- Suffragist Movement
- The Suffragettes
- How War time got women the right to vote

Pupils will be asked knowledge questions, source questions and interpretation questions.

- 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 History lessons. They are no use if left in the classroom in a box all the 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. [Free Homework & Revision for A Level, GCSE, KS3 & KS2 \(senecalearning.com\)](https://www.senecalearning.com) - look for ks3 computing.

Mathematics

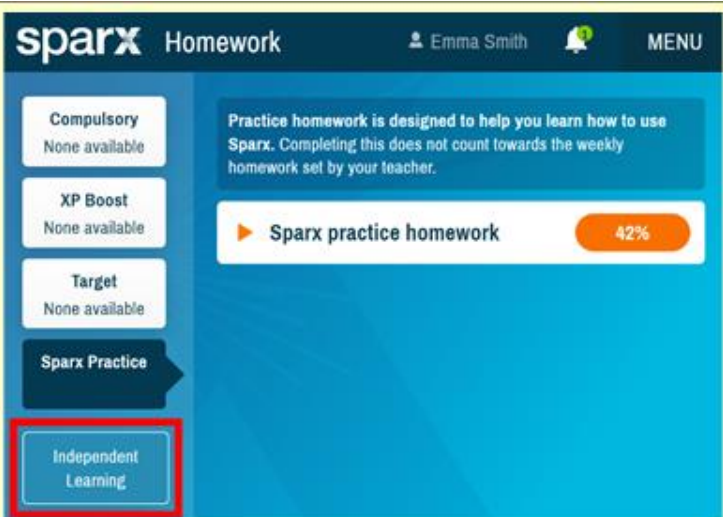
One paper – 60 minutes – Calculator

The assessment will include topics from years 7 to present. Below are the topics studied so far this year. 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
☐ 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

You can find the independent study tab at the bottom of the Sparx page after logging in





Physics

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

Topics include: Forces in Action and Electricity and Magnetism

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

Electricity and Magnetism:

- ☐ Explain how an electrical circuit works using the words charge, current and voltage
- ☐ Identify major circuit symbols
- ☐ Describe what is meant by the term voltage and how it is measured
- ☐ Describe how current behaves in a series circuit and how to measure it
- ☐ Describe what happens to current when more components are in a circuit and explain why
- ☐ Describe how current behaves in a parallel circuit and explain why
- ☐ Identify series and parallel circuits from circuit diagrams
- ☐ Describe what happens to current in a circuit if the wires are made longer
- ☐ Use the term resistance to explain why longer wires have this effect
- ☐ Use Ohms law to calculate voltage, resistance or current
- ☐ Explain how insulators can get a static charge
- ☐ Use a graph to predict other values
- ☐ Identify the key variable sin an investigation on electromagnets
- ☐ Describe magnetism using field lines
- ☐ Describe how both an electromagnet and an electric motor works

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 [Independent Study | Students | Stockport Academy](#)

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

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
5 pillars of Islam	The set of rules and guidance for a Muslim to live by.
Shahada	Declaration of faith
Salah	Prayer 5 times a day
Zakat	<u>Donating</u> 2.5% to charity
Sawm	Fasting, the month of fasting is called Ramadan
Hajj	Holy Pilgrimage to Mecca, Muslims should try and complete this once in their lifetime.
Akhira	Day of judgement when a Muslim dies

Angels:

Angel Jibril – Messenger of Allah, delivered the message about the birth of Isa to Miriam.

Angel Mikail – Angel of forgiveness and protector of holy buildings

Stages of Hajj:

1. Ihram – The clothing that Muslims wear to go on Hajj and the preparations that take place beforehand
2. Tawaf – Walking around the Kaaba 7 times anti – clockwise
3. Sa'y – Walking between Safa and Marwah 7 times
4. Arafat – Seek forgiveness at the place Muhammad gave his final sermon
5. Jamarat – Throw pebbles at large pillars to physically reject the devil
6. Sacrifice – Sacrifice a sheep or goat for Eid ul Adah

Features of a Mosque –

1. Qiblah wall
2. Minarets
3. Minbar
4. Mihrab

Evil and Suffering –

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 process which may mean your time in Barzakh is peaceful or torture

Knowledge Organiser | Life & Death

What's the right thing to do?

- **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.
- This is a moral dilemma which questions people's ethical choices.

Natural Moral Law

Thomas Aquinas was the **Christian** thinker behind the Natural Moral Law. There were 5 primary **precepts** (rules) that humans must follow (use "**POWER**" to remember them):

Preserve Life
Live in an **Ordered** society
Worship God
Educate Children
Reproduce

To assist with these Aquinas developed Secondary precepts which help people to live by the Primary ones. E.g. Educate children by sending them to school, and Preserve Life by not having an abortion.

Criticisms of Natural Moral Law

- Some Christians interpret these rules in an **absolutist** way – they want to follow them completely, so that may create a moral dilemma for them if they, for example, need an abortion due to health reasons.
- Taking into account the whole person
- They are based on a Christian idea of God (not everyone is Christian).

Situation Ethics

- Joseph Fletcher was the thinker behind Situation ethics. Fletcher said that we should do "**the most loving thing**" in any situation and focused on the use of the word **Agape**.
- For example, in the issue of **Abortion** if the woman's life is at risk from giving birth maybe the most loving thing to do is to have an abortion.
- This focuses on Quality of Life.

Criticisms of Situation Ethics

- **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, concise rules
- Some people use "love" to do "unloving" things - Scientists using animals for testing medicine.

Euthanasia

Types of Euthanasia;
Voluntary Euthanasia,
Active Euthanasia,
Passive Euthanasia
and Involuntary Euthanasia.

Euthanasia is illegal in the UK under the suicide act of 1961.

Capital Punishment

This is the legally authorised killing of someone as punishment for a crime. Known as the Death Penalty.

Examples: Electric Chair and Lethal injection

Abortion: A procedure to end a pregnancy.

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** – this means that life is special (sacred) and a gift from God.

A **Christian** might say "**do not kill**". This is one of the Ten Commandments from the **Bible**.

They might also say "**God created mankind in our own image**" which suggests that humans look like God – so ended a human life is 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**.

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 death is as terrible as killing everyone.

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 loving thing**" is important here.

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 family due to the cost of living crisis.

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: -

✓	Relationships with Family and Friends		Linguistic structures
	Character descriptions and relationships		Infinitives
	Free time activities in the past and future		Present tense verbs
	A good friend		Reflexive verbs
	My ideal partner		The Perfect tense
	When you were younger		The Future tense
	Festivals and Traditions		Negatives
	Food and drink		Opinions and justifications
	Festivals around the world		Agreement of adjectives
	Celebrations in the past and future		Connectives
			Quantifiers
			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
Saturday			
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