Year 7
End of Year Assessment Revision Topics

Date: W/C 3rd June 2025

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Contents

Biology

There will be 1 Biology Paper, which will be 40 minutes long.

Topics included: Cells and organisation and organ systems

Cells and organisation content:

- ❑ Describe the common processes that happen in all living organisms.
- ❑ Justify the classification of something as living, dead or never been alive.
- ❑ Describe movement as a life process in organisms.
- ❑ Label the parts of the microscope.
- ❑ Describe how to use a microscope, using key terms.
- ❑ Calculate total magnification.
- ❑ State what living organisms are made of.
- ❑ Produce scientific drawings of observation.
- ❑ Describe how improvements in microscope lenses have enhanced scientific understanding.
- ❑ Define the terms tissue, organ and organ systems.
- ❑ Sequence the levels of organisation from smallest and simplest to largest and most complex.
- ❑ Explain how cells, tissues and organs are arranged to make a specific organ system.
- ❑ Label the common parts of animal cells and describe their functions.
- ❑ Identify similarities and differences between real cells and representations of cells.
- ❑ Label the common parts of plant cells and describe their functions.
- ❑ Compare plant and animal cells and explain their differences.
- ❑ Prepare and make a microscope slide of an onion tissue and produce a scientific drawing of observation.
- ❑ Explain the steps for preparing a microscope slide.
- ❑ Define the term 'specialised cell'.
- ❑ Describe the functions of specialised plant cells and explain how they are adapted to carry out their function.
- ❑ Describe the functions of specialised animal cells and explain how they are adapted to carry out their function.
- ❑ State the needs of plants and animals.
- ❑ Describe respiration and explain why it is important for cell survival.
- ❑ Explain the role of diffusion in the movement of substances in and out of cells.
- ❑ Describe the factors that affect the rate of diffusion.
- ❑ Identify variables to change, measure and control to investigate diffusion.
- ❑ Draw a table for collection of results.
- ❑ Collect and record data to test the hypothesis.
- ❑ Describe the pattern in the results.
- ❑ Explain the pattern in the results using ideas about diffusion.

Organ systems content:

- ❑ Define the term unicellular and give examples of unicellular organisms
- ❑ Compare unicellular organisms and describe some adaptations of unicellular organisms
- ❑ Describe some uses and potential risks of unicellular organisms
- ❑ Define the term multicellular and give examples of multicellular organisms
- ❑ Compare exchange of substances in unicellular and multicellular organisms
- ❑ Describe how organ systems work together to keep cells alive in multicellular organisms
- ❑ Describe the function of the gas exchange system
- ❑ Describe the function of the structures in the gas exchange system
- ❑ Describe the process of gas exchange by diffusion in the alveoli

- ❑ Describe the adaptations of the alveoli for efficient diffusion
- ❑ Describe the process of breathing
- ❑ Investigate lung volume, calculating means in data collected
- ❑ Compare the composition of inhaled and exhaled air
- ❑ Make a prediction and identify variables
- ❑ Collect, display and process data appropriately to draw conclusion
- ❑ Describe the function of the digestive system
- ❑ Identify and describe the function of the key organs of the digestive system
- ❑ Describe the adaptations of the oesophagus and stomach
- ❑ Describe and explain the adaptations of the small intestine and link these to diffusion
- ❑ State the function of the circulatory system and label the major structures of the heart
- ❑ Describe the path blood takes through the heart
- ❑ Describe the structure and function of the blood vessels
- ❑ Describe the functions of the components of blood
- ❑ Explain how the red blood cell is specialised to carry out its function
- ❑ State what bone is and identify parts of the human skeleton
- ❑ Describe the functions of the human skeletal system
- ❑ Link the properties of bone to skeletal function
- ❑ Describe the function and location of joints in the body and describe the movement of different joint types
- ❑ Describe the role of different parts of joints
- ❑ Describe and explain patterns in data related to arthritis
- ❑ State the function of some of the major skeletal muscles in the body
- ❑ Explain how antagonistic muscles cause movement
- ❑ Describe some factors that can affect muscle strength
- ❑ Measure and record the force of some of the skeletal muscles in the body
- ❑ Draw conclusions from secondary data

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 will be 1 Chemistry Paper, which will be 40 minutes long.

Topics include: Particles, substances and mixtures, Chemical changes and Materials

Particles, substances and mixtures content

- ❑ Describe the arrangement and movement in particles in the solid, liquid and gas states.
- ❑ Draw accurate diagrams to represent the particle arrangement of matter in the solid, liquid and gas states.
- ❑ Describe the forces of attraction between the particles in the solid, liquid and gas states.
- ❑ Describe the properties of matter in the solid, liquids and gas states.
- ❑ Use the particle model to explain the properties of matter in solid, liquid and gas states.
- ❑ Identify changes of state.
- ❑ Draw and explain changes of state in terms of particles.
- ❑ Explain why a change of state is a physical change.
- ❑ Name and label parts of a Bunsen burner.
- ❑ Describe how to light a Bunsen burner safely.
- ❑ Describe the flames of a Bunsen burner
- ❑ Define melting and boiling points.
- ❑ Describe how particle attraction affects melting and boiling points.
- ❑ Predict the states of matter based on the given melting and boiling points.
- ❑ Describe the difference between boiling and evaporating.
- ❑ Draw and label a diagram of the scientific heating apparatus.
- ❑ State what happens to temperature during a state change.
- ❑ Describe diffusion in terms of particles and concentration.
- ❑ Explain diffusion in the different states of matter.
- ❑ Investigate the effect of temperature on diffusion, identifying key variables.
- ❑ Summarise the findings from the investigation.
- ❑ Describe gas pressure in everyday contexts.
- ❑ Explain why adding more air increases the gas pressure inside containers
- ❑ Describe and explain the effect of temperature on gas pressure in terms of particles.
- ❑ Define and draw a pure substance in terms of particles.
- ❑ Define and draw a mixture in terms of particles.
- ❑ Describe how to identify pure substances and mixtures
- ❑ Define key terms linked to dissolving.
- ❑ Draw a particle diagram to describe how a solution is made.
- ❑ Record and analyse data on the solubility of different solids in water.
- ❑ Explain the conservation of mass in solutions.
- ❑ Use appropriate equipment to make and record accurate measurements to test the conservation of mass in solutions.
- ❑ Describe what is meant by a saturated solution.
- ❑ Define the term ‘solubility’ and determine the solubility of a salt in a given solvent.
- ❑ Record and analyse data on how different solvents affect solubility.
- ❑ Describe how temperature affects the solubility of solids.
- ❑ Interpret data on temperature and solubility.
- ❑ Identify parts of a conclusion and draw conclusions from the given results.
- ❑ Draw and describe how to separate an insoluble solid from a liquid.
- ❑ Draw and describe how to separate a soluble solid from a solution.
- ❑ State when multiple separation techniques may be required to separate a mixture.
- ❑ Explain the key steps in a method to purify rock salt.

- ❑ State when distillation would be used and the difference in the physical property used for separation.
- ❑ Explain how simple distillation works, naming key equipment and states of matter.
- ❑ Identify the components of a Liebig condenser and give reasons for this being more suitable than simple distillation equipment.
- ❑ State when chromatography would be used and the difference in the physical property used for separation.
- ❑ Draw and label the correct set-up for chromatography.
- ❑ Describe how chromatography separates substances.
- ❑ Interpret chromatograms to identify the substances contained
- ❑ Explain how chromatography can be useful to scientists.

Chemical changes content:

- ❑ Define atoms and elements
- ❑ Define molecules
- ❑ Describe and apply the rules for writing element symbols
- ❑ Describe some properties and uses of metal and non-metal elements
- ❑ Describe how an element's properties are related to its atoms
- ❑ Explain differences in melting and boiling points between elements
- ❑ Present results using a suitable table
- ❑ Investigate properties of metals and non-metals
- ❑ Draw conclusions from the results
- ❑ Describe compounds and use particle diagrams to represent them
- ❑ Investigate the differences between compounds and the elements from which they are made
- ❑ Identify the elements and number of atoms in a compound from its chemical formulae
- ❑ Write chemical formulae for compounds
- ❑ Name metal and non-metal compounds
- ❑ Name three element compounds containing oxygen
- ❑ State the chemical formula ending for nitrates, carbonates and sulphates
- ❑ Distinguish between physical changes and chemical reactions
- ❑ Describe evidence for a chemical reaction
- ❑ Record observations of chemical reactions
- ❑ Describe the parts of a word equation
- ❑ Describe what happens to atoms during a chemical reaction
- ❑ Apply conservation of mass to simple chemical reactions
- ❑ Describe an oxidation reaction and represent using word equations
- ❑ Apply the conservation of mass theory to oxidation reactions
- ❑ Safely carry out an oxidation reaction and describe observations
- ❑ Describe thermal decomposition reactions
- ❑ Describe observations of a thermal decomposition reaction
- ❑ Identify the state symbols for chemical formulae
- ❑ Write appropriate state symbols for chemical formulae
- ❑ Use state symbols to predict observations of chemical reactions
- ❑ Describe combustion and identify the three things required for combustion
- ❑ State the products of combustion of fuels
- ❑ Make a prediction and calculate means from collected results
- ❑ Investigate the conservation of mass in thermal decomposition
- ❑ Calculate the mass of gas lost and explain the results
- ❑ Describe conservation of energy in chemical reactions

- ❑ Describe exothermic and endothermic reactions
- ❑ Describe uses of exothermic and endothermic reactions
- ❑ Identify endothermic and exothermic reactions from temperature changes
- ❑ Make and record accurate temperature readings for exothermic and endothermic reactions
- ❑ Suggest and explain changes to equipment that would improve the data collected

Materials content:

- ❑ Describe how ceramic materials are formed
- ❑ Link the properties of ceramic materials to their uses
- ❑ Describe how the development of technology has increased scientific knowledge of ceramic materials
- ❑ Describe what a polymer is and how they are formed, using diagrams
- ❑ Describe the difference between natural and synthetic polymers and give examples
- ❑ Describe some consequences and solutions of raw material depletion
- ❑ State some common properties of polymers and their uses
- ❑ Describe factors that may cause polymers to have different properties
- ❑ Describe how different polymer properties make them suitable for their uses
- ❑ Identify the type of scientific method and variables
- ❑ Collect multiple measurements to minimise random error
- ❑ Use collected data to draw conclusions
- ❑ Describe some problems associated with polymers
- ❑ Describe the advantages and disadvantages of polymer disposal methods
- ❑ State global initiatives being taken to address the environmental issue of plastic polymers
- ❑ Define composite materials
- ❑ Make plaster composites
- ❑ Describe the properties and uses of some composite materials
- ❑ Select appropriate composite materials for an application
- ❑ Investigate plasticine composites, identifying variables and drawing conclusions
- ❑ Identify the type of scientific method and variables
- ❑ Collect data and draw conclusions
- ❑ Use data to choose materials

Useful Resources:

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

The mid-year assessment for English will be **one hour in length** and will assess **both reading and writing skills**.

The paper is designed to cover essential knowledge taught in the first term and will include unseen material for pupils to apply their developing skills to.

Section 1: Reading

This section will assess:

- **Comprehension**: Understanding and interpreting the text.
- **Inferences**: Drawing logical conclusions based on evidence from the text.
- **Academic Writing (using the above):** Responding to questions in a clear, structured, and analytical manner.

Example question types:

Summarize the main ideas of the text in your own words.

What does the writer suggest about the main character's feelings in this passage? Use evidence to support your response.

Explain how the writer uses language to create a sense of tension.

Section 2: Writing

This section will assess:

- **Writing Narrative Fiction**: Developing and crafting an original narrative with attention to structure and style.
- **Writing Across All Forms**: Employing appropriate tone, form, and vocabulary for the task.

Example task:

Write a short story inspired by the theme of perseverance. Your story should have a clear beginning, middle, and end.

Students will be assessed on their ability to:

Reading Section: Demonstrate understanding of the text, make detailed inferences supported by evidence, and present ideas logically using appropriate academic style and language.

Writing Section: Develop ideas creatively with control over narrative techniques, structure, and style, and show accurate spelling, punctuation, and grammar.

Revision Materials

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

French

There will be two papers each paper will be 30 minutes long.

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

Both papers will cover the following units of study: -

covering all topics and link to quizzes.

✓	Greeting and Introductions
	Name, age where you live
	Classroom vocab
	Days, months, numbers
	Birthdays
	Giving opinions
	Free time activities
	Weather
	Family
	Describing appearance
	Describing personality
	Describing family members
	Describing animals
	School
	School subjects and opinions
	Describing teachers
	School facilities
	Where I live
	Describing my house and room
	What there is in my area
	What I can do in my area

✓	Linguistic structures
	Infinitives
	Present tense verbs
	Negatives
	Opinions and justifications
	Agreement of adjectives
	Connectives
	Quantifiers
	Time expressions

Useful resources: -

- Knowledge Organisers
- Essential Knowledge
- United Learning https://curriculum.unitedlearning.org.uk/Curriculum?r=92101
- https://curriculum.unitedlearning.org.uk/Curriculum?r=92076

Geography

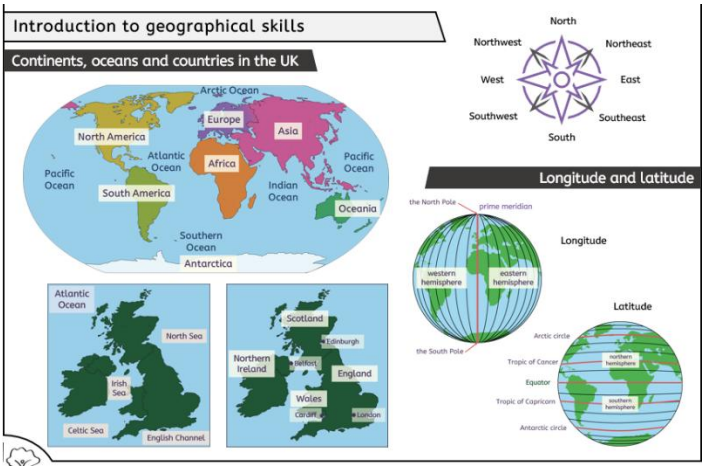
There will be one paper, which will be 50 minutes long.

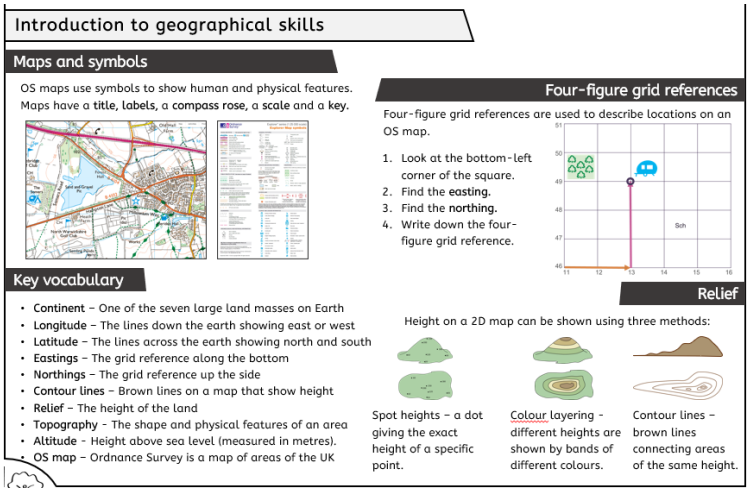
It will contain questions relating to the following units:

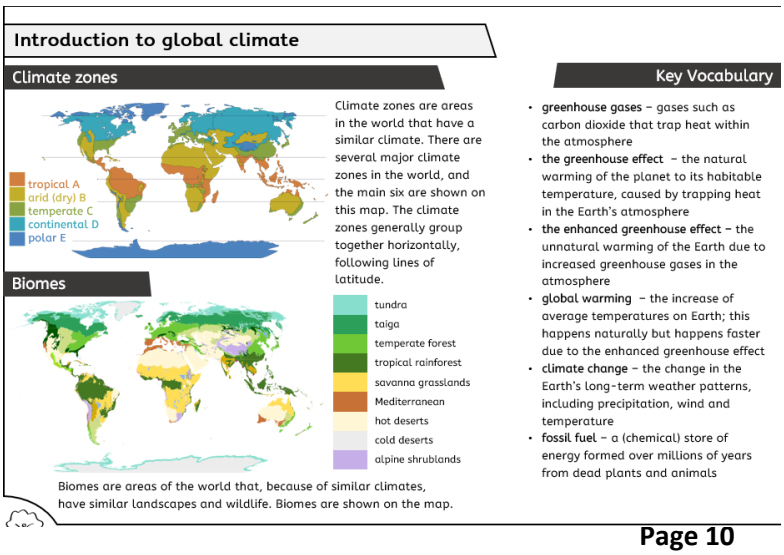
- Geographical skills
- Introduction to global climate
- Development
- Rivers

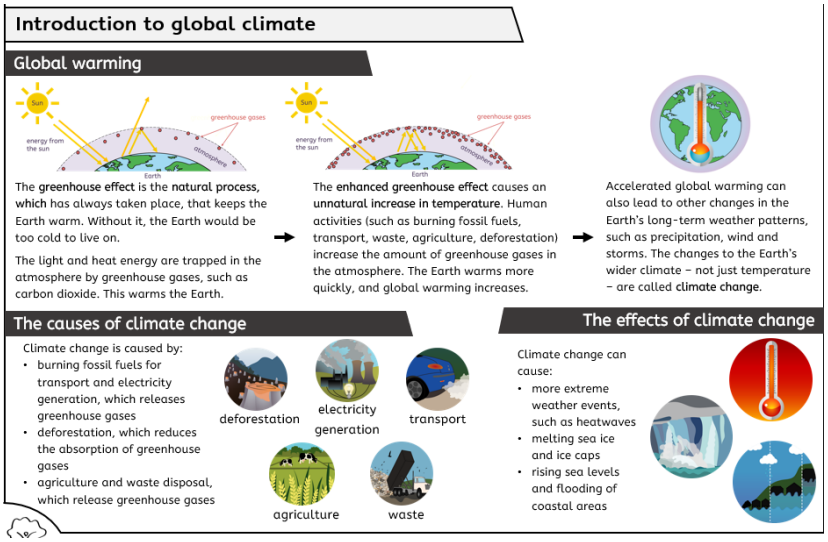
Useful resources:

- Knowledge organisers are located here: [Stockport Academy > Information > Curriculum > Humanities (stockport-academy.org))]
- Fluency sheets (each pupil has these stuck in their books at the start of each unit).









Introduction to global climate

Global warming

The **greenhouse effect** is the **natural process**, which has always taken place, that keeps the Earth warm. Without it, the Earth would be too cold to live on.

The light and heat energy are trapped in the atmosphere by greenhouse gases, such as carbon dioxide. This warms the Earth.

The **enhanced greenhouse effect** causes an **unnatural increase in temperature**. Human activities (such as burning fossil fuels, transport, waste, agriculture, deforestation) increase the amount of greenhouse gases in the atmosphere. The Earth warms more quickly, and global warming increases.

Accelerated global warming can also lead to other changes in the Earth's long-term weather patterns, such as precipitation, wind and storms. The changes to the Earth's wider climate – not just temperature – are called **climate change**.

The causes of climate change

Climate change is caused by:

- burning fossil fuels for transport and electricity generation, which releases greenhouse gases
- deforestation, which reduces the absorption of greenhouse gases
- agriculture and waste disposal, which release greenhouse gases

deforestation, electricity generation, transport, agriculture, waste

The effects of climate change

Climate change can cause:

- more extreme weather events, such as heatwaves
- melting sea ice and ice caps
- rising sea levels and flooding of coastal areas

7.03: Development

Background

Across the world, the standard of living and quality of life can be very different.

A	Countries therefore have different classifications based on the quality of life within them.
B	How developed a country is can be measured in different ways.
C	Development levels can vary within and between countries. There are many reasons why some countries are more developed than others.
D,E	Countries can become more developed in many ways, including through economic growth from tourism, top-down development projects and bottom-up development projects.

A) Country classification

1 developed	(n) countries with high standards of living, advanced infrastructure and strong economies.
2 emerging	(n) countries transitioning between developing and developed, showing rapid improvements in infrastructure.
3 developing	(n) countries with lower standards of living, less advanced infrastructure and economies that are growing but not yet strong.

B) Measuring development

1	GNI per capita	(n) the average income of a country's citizens.
2	Infant mortality rate	(n) the number of babies that do not survive to one year old per 1,000 births.
3	Life expectancy	(n) the average number of years a person is expected to live.
4	Literacy rate	(n) the percentage of people in a specific age group, typically aged 15 and above, who can read and write.
5	average years of schooling	(n) the average number of years of education that individuals aged 25 and older have completed.
6	Human Development Index (HDI)	(n) a composite measure of development that is used to categorise the development of countries using GNI per capita, life expectancy and average years of schooling.

C) Factors that hinder development

Human	Physical
uneven distribution of income	challenging relief
corruption	extreme climate
conflict	lack of natural resources
low-value goods and services for trade	landlocked
high levels of debt	tectonic hazards
poor education systems	extreme weather
poor healthcare systems	lack of water resources

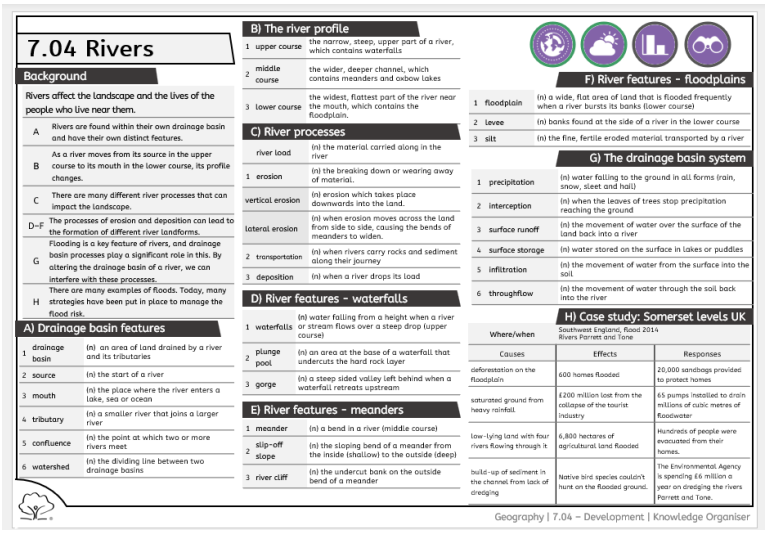
D and E) Development Projects

D) Top-down project: The Grand Inga Dam DRC

Advantages	Disadvantages
It provides a reliable source of renewable energy for the DRC.	It would flood 22,000 hectares of land in the Bundi Valley.
It provides electricity for Kinshasa at a lost cost.	Natural habitats will be destroyed by the reservoir.
It produces electricity that the DRC can sell the other countries.	35,000 people would be displaced from their homes by the dam reservoir.
It produces electricity to power more coltan and copper mines.	Electricity will be sold to other countries, and many people in rural DRC will still be without electricity.

E) Bottom-up project: WECAN DRC

Advantages	Disadvantages
It protects the habitats of 100,000 species of animals and plants.	It is small scale, so it has limited reach.
It empowers indigenous women.	It does not stop illegal logging.
Women earn money from selling fruit and herbs from the trees planted.	The project currently supports only 700 women.
It reduces the impact of climate change through reforestation.	It takes a long time for the full benefits to be achieved.



7.04 Rivers

Background

Rivers affect the landscape and the lives of the people who live near them.

A	Rivers are found within their own drainage basin and have their own distinct features.
B	As a river moves from its source in the upper course to its mouth in the lower course, its profile changes.
C	There are many different river processes that can impact the landscape.
D–F	The processes of erosion and deposition can lead to the formation of different river landforms.
G	Flooding is a key feature of rivers, and drainage basin processes play a significant role in this. By altering the drainage basin of a river, we can interfere with these processes.
H	There are many examples of floods. Today, many strategies have been put in place to manage the flood risk.

A) Drainage basin features

1	drainage basin	(n) an area of land drained by a river and its tributaries
2	source	(n) the start of a river
3	mouth	(n) the place where the river enters a lake, sea or ocean
4	tributary	(n) a smaller river that joins a larger river
5	confluence	(n) the point at which two or more rivers meet
6	watershed	(n) the dividing line between two drainage basins

B) The river profile

1	upper course	the narrow, steep, upper part of a river, which contains waterfalls
2	middle course	the wider, deeper channel, which contains meanders and oxbow lakes
3	lower course	the widest, flattest part of the river near the mouth, which contains the floodplain.

C) River processes

river load	(n) the material carried along in the river
1 erosion	(n) the breaking down or wearing away of material.
vertical erosion	(n) erosion which takes place downwards into the land.
lateral erosion	(n) when erosion moves across the land from side to side, causing the bends of meanders to widen.
2 transportation	(n) when rivers carry rocks and sediment along their journey
3 deposition	(n) when a river drops its load

D) River features - waterfalls

1	waterfalls	(n) water falling from a height when a river or stream flows over a steep drop (upper course)
2	plunge pool	(n) an area at the base of a waterfall that undercuts the hard rock layer
3	gorge	(n) a steep sided valley left behind when a waterfall retreats upstream

E) River features - meanders

1	meander	(n) a bend in a river (middle course)
2	slip-off slope	(n) the sloping bend of a meander from the inside (shallow) to the outside (deep)
3	river cliff	(n) the undercut bank on the outside bend of a meander

F) River features - floodplains

1	floodplain	(n) a wide, flat area of land that is flooded frequently when a river bursts its banks (lower course)
2	levee	(n) banks found at the side of a river in the lower course
3	silt	(n) the fine, fertile eroded material transported by a river

G) The drainage basin system

1	precipitation	(n) water falling to the ground in all forms (rain, snow, sleet and hail)
2	interception	(n) when the leaves of trees stop precipitation reaching the ground
3	surface runoff	(n) the movement of water over the surface of the land back into a river
4	surface storage	(n) water stored on the surface in lakes or puddles
5	infiltration	(n) the movement of water from the surface into the soil
6	throughflow	(n) the movement of water through the soil back into the river

H) Case study: Somerset levels UK

Where/when: Southwest England, flood 2014, Rivers Parrett and Tone

Causes	Effects	Responses
deforestation on the floodplain	600 homes flooded	20,000 sandbags provided to protect homes
saturated ground from heavy rainfall	£200 million lost from the collapse of the tourist industry	65 pumps installed to drain millions of cubic metres of floodwater
low-lying land with four rivers flowing through it	6,800 hectares of agricultural land flooded	Hundreds of people were evacuated from their homes.
build-up of sediment in the channel from lack of dredging	Native bird species couldn't hunt on the flooded ground.	The Environmental Agency is spending £6 million a year on dredging the rivers Parrett and Tone.

Geography | 7.04 – Development | Knowledge Organiser

- SENECA key stage 3 geography, the geographical skills, climate change, development and rivers units will be helpful. They have been set for all Y7 classes. Pupils can log in using Microsoft 365 with their school email address and password.
- They will be assessed on place knowledge, so make sure pupils can name and locate the continents and oceans and main lines of latitude and longitude. Pupils will also be assessed on their map skills, grid references, compass directions, scale, distance, map symbols and height on a map.
- Exercise books are also useful as they contain everything that has been taught.

History

The Paper will be 45 minutes long.

Unit 1: Empires East and West

	The world c 1000
	Chinese dynasties c1000
	Islamic Empire
	Byzantine Empire
	Rome c1000

Unit 2: Norman Conquest and Control

	Migration to England before 1066
	Anglo-Saxon Life
	Death of Edward the Confessor
	Norman Conquest, 1066
	Norman Control: Castles and Terror
	Norman Control: Peaceful methods
	How far did England change under the Normans

Unit 3: Medieval Religion

	Power and hierarchy of the medieval Church
	Medieval places of worship
	Life after Death
	Monasteries and medicine
	Crusades
	Jews in medieval England

Unit 4: Challenges to Medieval Monarchs

	Different challenges to Medieval Monarchs
	Stephen and Matilda
	Henry II and Thomas Becket
	Henry II and Elenor of Aquitaine
	King John and the Church
	King John and the Magna Carta
	Henry III and Parliament
	The Black Death
	The Peasants Revolt
	The Wars of the Roses

Information Technology

There will be a **30-minute exam** based off the topics you have done so far on **E-safety , Programming and Computer Science Theory**

E-Safety

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

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

•Pupils should know how information and data is generated, collected, shared, and used online.

•Pupils should know about online risks, including that any material someone provides to another has the potential to be shared online and the difficulty of removing potentially compromising material placed online.

Programming

- Use variables
- Use functions
- Use if statements
- Create programming code to solve problems

Computer Science Theory

- Hardware
- Binary (representing in numbers, text, images)
- Flowcharts
- Algorithms

Useful resources

- KS3 Computer Science - BBC Bitesize
- Knowledge organisers on school website
- Students can access revision materials at Seneca Learning. Free Homework & Revision for A Level, GCSE, KS3 & KS2 (senecalearning.com) - look for ks3 computing.

Mathematics

Paper 1 – 60 minutes – non-calculator

Paper 2 – 60 minutes – non-calculator

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

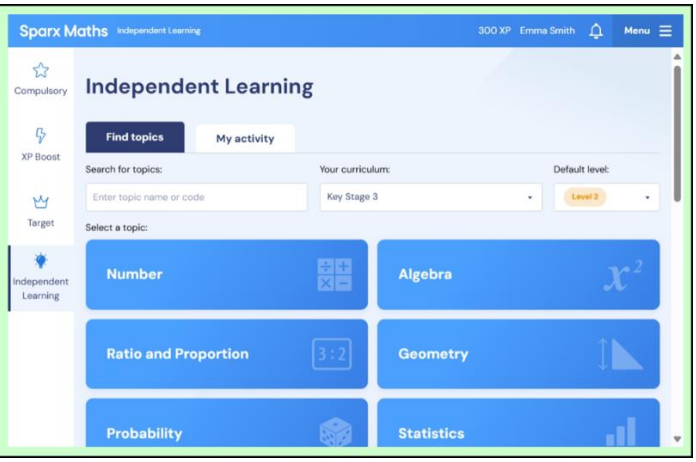
Topic		Sparx Codes
❑ 7.01	Numerical Skills	M763, M704, M522, M527, M135, M111, M431, M878
❑ 7.02	Order of operations	M521
❑ 7.03	Introduction to Algebra	M106, M830, M813, M795, M531, M417, M327, M208, M979
❑ 7.04	Primes, Factors and Multiples	M227, M823, M698, M322, M829
❑ 7.05	Expanding and Factorising 1	M288, M237, M792, M100
❑ 7.06	Addition and Subtraction	M928, M429, M347, M152, M899
❑ 7.07	Perimeter	M920, M635, M690
❑ 7.08	Mean	M940
❑ 7.09	Multiplication and Division	M113, M911, M187, M803, M462, M354, M873, M262
❑ 7.10	Area of triangles and quadrilaterals	M900, M390, M291, M610, M269, M996
❑ 7.11	Fraction Manipulation	M158, M410, M671, M939, M601
❑ 7.12	Adding and Subtracting Fractions	M835, M931
❑ 7.13	Comparing and Ordering Fractions	M335, M958
❑ 7.14	Fractions of amounts	M695
❑ 7.15	Polygons	M276, M523
❑ 7.16	Angles	M502, M541, M780, M331, M818, M351, M679, M319
❑ 7.17	Coordinates	M618

Log in to Sparx Maths as usual (using school email address or username and password)

Select the independent learning section on the left hand side

Search for a topic or a Sparx code (select "Key Stage 3" if the code starts with an M or select "GCSE" if the code starts with U)

Videos and questions available



Physics

There will be 1 Physics paper, which will be 40 minutes long.

Topics include: Fundamentals of Physics and Sound and Light

Fundamentals of Physics content

- ❑ Identify when a force is acting
- ❑ Describe the possible changes to an object when a force is acting on it
- ❑ Explain unobservable forces
- ❑ Identify forces arising from interactions
- ❑ Model the forces acting in a system
- ❑ Interpret and draw free-body force diagrams
- ❑ Describe values using units.
- ❑ Describe measuring
- ❑ Describe and use common techniques and apparatus correctly
- ❑ Describe the effect of combining forces on an object
- ❑ Analyse net forces on an object (qualitatively)
- ❑ Predict the effect of multiple forces on objects
- ❑ Calculate the resultant force on an object
- ❑ Explain the forces acting on objects at rest
- ❑ Explain the effect of forces on objects in motion
- ❑ Describe how objects can be compressed or extended
- ❑ Describe how to work safely in practical science
- ❑ Describe forces when objects are in tension
- ❑ Describe what friction is and its causes
- ❑ Analyse the size and direction of friction
- ❑ Explain how friction arises
- ❑ Describe and explain how friction forces can be reduced
- ❑ Carry out an experiment and collect data to investigate friction
- ❑ State if results are repeatable and reproducible and give reasons
- ❑ Present data in tables
- ❑ Describe and explain patterns of data from data tables
- ❑ Explain patterns based on the interpreted data
- ❑ Describe a model for energy
- ❑ Describe the energy stores model
- ❑ Describe the changes to the amount of energy in stores during energy transfers
- ❑ Describe the energy stores and pathways model
- ❑ Describe the energy pathways to and from changing systems
- ❑ Describe energy transfer diagrams
- ❑ Describe the process of energy transfer analysis.
- ❑ Analyse energy transfers

Sound and Light content:

- ❑ Describe the sources of sound
- ❑ Explain how sounds can be louder or quieter
- ❑ Explain how sounds can have higher or lower pitch
- ❑ Identify when sound can and cannot travel
- ❑ Describe radiation and sound as radiation

- ❑ Explain how sound is transmitted through matter
- ❑ Describe how sound varies with distance from the source
- ❑ Explain the absorption of sound
- ❑ Compare how different materials absorb sound
- ❑ Describe reflection of sound as an echo
- ❑ Explain how sound reflections occur in 'enclosed' spaces
- ❑ Explain some principles of noise reduction and sound amplification
- ❑ Explain why technology leads to better measurements
- ❑ Compare speed of sound transmitted through different types of matter
- ❑ Describe uses of echoes
- ❑ Describe how the ear works
- ❑ Explain the ear's structure using ideas about transmission, absorption and reflection
- ❑ Compare the way hearing can vary
- ❑ Describe light sources
- ❑ Describe the detection of light
- ❑ Explain light measurements for sources and through surfaces
- ❑ Describe light travelling
- ❑ Represent light as a ray
- ❑ Compare transmission of sound and light
- ❑ Describe how light interacts with surfaces (reflection)
- ❑ Investigate the angles of reflection of light at the surface of a plane mirror
- ❑ Use the law of reflection to predict the path of light at smooth and rough surfaces
- ❑ Describe the 'passive-eye' model of vision
- ❑ Describe primary and secondary light
- ❑ Describe light that has passed through a coloured filter
- ❑ Describe absorption and reflection of light at an interface
- ❑ Describe which coloured light is absorbed and reflected (primary colours)
- ❑ Explain how mixing pigments makes new colours
- ❑ Describe how light travels through a pinhole
- ❑ Explain how we see an image in a mirror
- ❑ Explain the apparent inversion of an image
- ❑ Describe the path of a beam of light as it passes through a 'surface' between different transparent media.
- ❑ Investigate the path of light to, through and from glass
- ❑ Explain the change in direction during refraction in terms of change of speed.
- ❑ Describe what happens to light passing through a lens (converging)
- ❑ Observe the path of light from different parts of an object having passed through a converging lens
- ❑ Describe the quality of scientific research
- ❑ Describe how the eye works
- ❑ Explain vision
- ❑ Explain how sight can vary

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)

Religious Studies

Time: 1 hour
Section A: Religion local and national and Origins of Abrahamic Faith

Section B: Judaism

Section C: Christianity

Topics:
Religion Locally and Nationally and origins of Abrahamic faith

- Census data for UK and Stockport
- Why religion is decreasing.
- Emergence of Judaism
- Emergence of Christianity
- Emergence of Islam
- The Covenant

Judaism

- Torah, Tenakh, Talmund
- Shabbat
- Synagogue
- Bar and Bat mitzvah
- Tikkun Oluam

Christianity

- Bible
- Nativity
- Jesus' death and resurrection

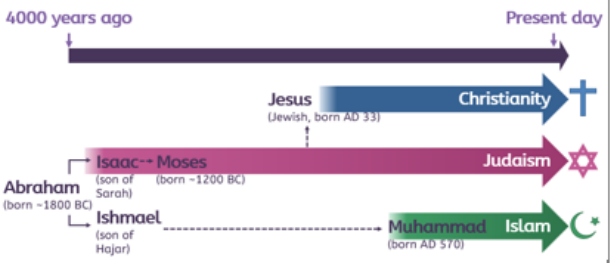
You should use the below to help you revise:

- Knowledge organisers
- Exercise books

7.02: The Origins of Abrahamic Faiths

Key Vocabulary

1	Abrahamic faith	one of three faiths that are all linked by Abraham: Judaism, Christianity and Islam.
2	monotheism	the belief that there is only one God
3	polytheism	the worship of or belief in more than one god
4	covenant	an agreement between two sides (between humans and God)
5	sin	an action that is believed to go against the laws of God
6	idol	objects or images that represent gods
7	atonement	making up for something that someone has done wrong
8	sacrifice	to give up something valuable in order to gain something else
9	sermon	a talk about a religious or moral subject given by a leader in the religion
10	prophet	someone chosen by God to say the things God wants them to tell people
11	resurrection	coming back to life after someone has died
12	theology	the study of God and ideas about God.
13	theologian	someone who studies theology, who might look at how holy texts and ideas about God influence people's beliefs and actions.



Holy Books introduced

The Torah	Holiest scripture for Judaism. The word means "law" in Hebrew. It was written by Moses. It is also important in Christianity and Islam.
The Qur'an	Holiest scripture for Islam. The word means "recite" in Arabic. It was revealed to the Prophet Mohammed.

The Covenant and the Abrahamic Faiths

Abraham is a monotheist and worships only one God. God promises to look after Abraham and his descendants because of this, and that his descendants will be a blessing to the world. Abraham has two sons, Isaac (who Moses and Jesus are descended from) and Ishmael (who Muhammad is descended from). Moses is given the Ten Commandments as part of the covenant. Christians believe Jesus is part of the covenant being fulfilled. Muslims believe prophecy is a part of the covenant.

7.03: Judaism

Key Vocabulary

1	Abraham	The founder of Judaism and husband of Sara.
2	Covenant	An agreement between two sides (between humans and God).
3	Sara	Female leader, mother of nations and wife of Abraham.
4	Isaac	The son of Abraham and Sara.
5	Moses	Leader who freed the Israelites from slavery and was given the 10 commandments.
6	Miriam	Prophetess who helped her brother Moses lead the Israelites out of slavery.
7	Exodus	A book in the Bible which tells the story of the Israelites being freed from slavery.
8	Ten Commandments	Ten rules given to Moses by God about how humans should behave.
9	Esther	A Jewish queen who saved her people from a plot to destroy them.
10	Monotheism	The belief that there is only one God.
11	Shema	An important prayer, declaring the oneness of God.
12	Messiah	A future Jewish king who is expected to bring peace.
13	Genesis	A book in the Bible which describes the creation of the world.
14	Mitzvot	613 rules in the Torah which guide Jews in their behaviour.
15	Tikkun Olam	"Repairing the world", encouraging actions that improve society and bring justice.
16	Synagogue	A Jewish place of worship, study and community.
17	Bar/Bat Mitzvah	Coming of age ceremony (Bar Mitzvah for boys and Bat Mitzvah for girls).
18	Pesach/Passover	A Jewish holiday which commemorates the Exodus story.
19	Shabbat	A day of rest and worship observed from Friday evening to Saturday evening.
20	Orthodox	A branch of Judaism that follows traditional beliefs, laws and practices.
21	Reform	A branch of Judaism that adapts traditional beliefs, laws and practices to fit modern life.
22	Prophecy	A message given to humans from God, usually to a prophet.

Holy Books introduced

The Tanakh	Hebrew Bible, which includes three parts: the Torah, Nevi'im and Ketuvim.
The Torah	Holiest scripture for Judaism. The word means "law" in Hebrew. Written by Moses. Also important in Christianity and Islam.
Nevi'im	Contains books of the Prophets, which tell the history of Israel God's messages through the prophets.
Ketuvim	Contains various writings, including poetry, wisdom literature and historical accounts.
Talmud	Contains discussions and interpretations of the Torah, which guides Jewish law and practice.

Tools for Studying Religion

Theology is the study of God and ideas about God. Theologians look at how ideas about God influence beliefs in religions and the actions people will do.

Social Scientists use evidence to see how people are influenced by society. Social Scientists look at patterns in what people believe about God and how this may change due to time and place.

7.04: Christianity

Key Vocabulary

1	**Jesus**	The most important figure in Christianity, believed to be the Son of God.
2	**Mary**	The mother of Jesus.
3	**Ministry**	The work of a religious person.
4	**Crucifixion**	The execution of Jesus, by the Romans, on a cross.
5	**Resurrection**	Jesus rising from the dead three days after his crucifixion.
6	**Ascension**	Jesus' ascent to heaven, 40 days after his resurrection.
7	**Mary Magdalene**	A follower of Jesus who witnessed his resurrection.
8	**The Great Commission**	Jesus' instruction to his followers to spread his teachings to all people.
9	**Apostles**	The twelve main followers of Jesus who spread his message.
10	**St Paul**	An early Christian leader who wrote many letters in the New Testament.
11	**Phoebe**	A deaconess mentioned in the New Testament who helped the early church.
12	**Lydia**	A businesswoman and early Christian supporter of Paul.
13	**Nicene Creed**	A statement of Christian faith.
14	**Trinity**	The Christian belief in one God in three persons: Father, Son and Holy Spirit.
15	**Reformation**	A movement in the 16th century that led to the creation of Protestant churches.
16	**Protestant**	A branch of Christianity that broke away from the Catholic Church during the Reformation.
17	**Catholic**	The largest branch of Christianity, led by the Pope.
18	**Pope**	The leader of the Catholic Church.
19	**Messiah**	One expected to save and lead the people. Christians believe this to be Jesus.
20	**Salvation**	Being saved from sin and its consequences.
21	**Sermon on the Mount**	A collection of teachings by Jesus covering topics like love, prayer and moral guidance.
22	**The Lord's Prayer**	A prayer taught by Jesus to his disciples, summarising key beliefs in the Christian faith.
23	**Denomination**	A specific branch of group within Christianity.
24	**Sacrament**	An important ritual that represents an important part of the faith.

Holy Books introduced

The Bible	The most important book in Christianity. It is divided into two main parts: the Old Testament, which contains the history and teachings of the Jewish faith, and the New Testament, which focuses on the life, teachings, death and resurrection of Jesus and the early Christian community.
The Gospels	These are four books in the Bible which contain the accounts of the life of Jesus. They are written by Matthew, Mark, Luke and John.

Tools for Studying Religion

Theology is the study of God and ideas about God. Theologians look at how ideas about God influence beliefs in religions and the actions people will do.

Social Scientists use evidence to see how people are influenced by society. Social Scientists look at patterns in what people believe about God and how this may change due to time and place.

Spanish

There will be two papers, each paper will be 30 minutes long.

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

Both papers will cover the following units of study: -

covering all topics and link to quizzes.

✓	Greeting and Introductions
	Name, age where you live
	Classroom vocab
	Days, months, numbers
	Birthdays
	Giving opinions
	Free time activities
	Weather
	Family
	Describing appearance
	Describing personality
	Describing family members
	Describing animals
	School
	School subjects and opinions
	Describing teachers
	School facilities
	Where I live
	Describing my house and room
	What there is in my area
	What I can do in my area

✓	Linguistic structures
	Infinitives
	Present tense verbs
	Negatives
	Opinions and justifications
	Agreement of adjectives
	Connectives
	Quantifiers
	Time expressions

Useful resources: -

- Knowledge Organisers
- Essential Knowledge
- United Learning https://curriculum.unitedlearning.org.uk/Curriculum?r=92103

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

Revision Timetable

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

Day	Morning	Afternoon	Review points
Saturday			
Sunday			
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Day	Morning	Afternoon	Review points
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