

Year 7

End of Year Assessment Revision

Topics

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Biology

There will be 1 Biology Paper, which will be 30 minutes long.

Biology

These topics are about cells, how living things are organised, and the main organ systems in the human body.

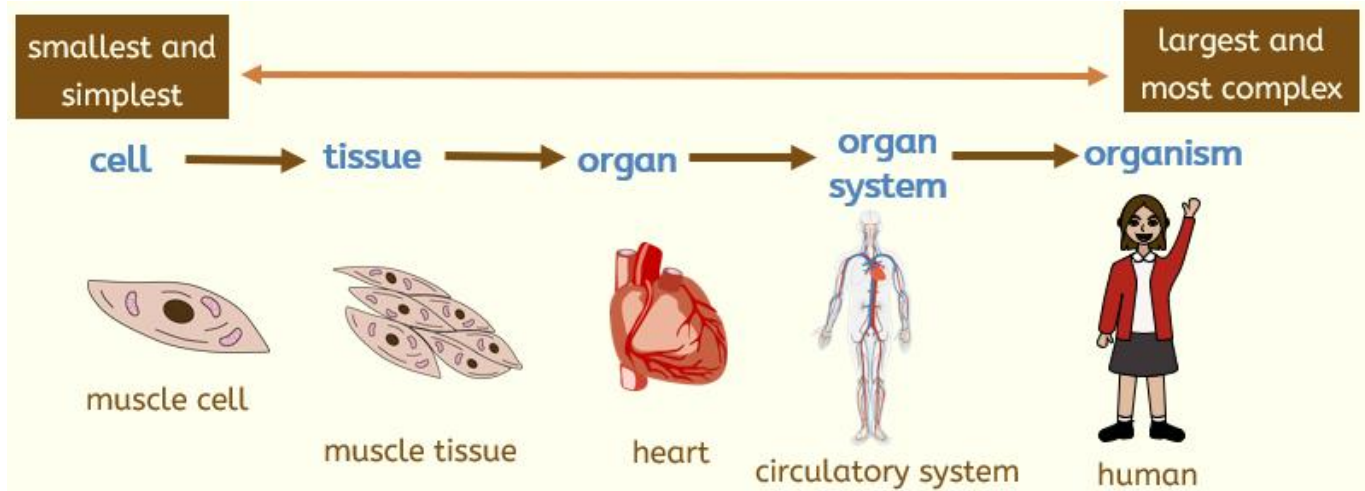
7.03 Cells and organisation

1. Cells and organisation

What you need to know:

- Living things are called organisms.
- All living organisms carry out life processes such as movement, growth, reproduction, respiration, sensitivity, excretion and nutrition.
- Cells are the building blocks of living things.
- Some organisms are unicellular, which means they are made of one cell. Others are multicellular, which means they are made of many cells.
- A tissue is a group of similar cells. An organ is a group of tissues working together. An organ system is a group of organs working together.
- Specialised cells have structures that help them do particular jobs.

Key words: organism, cell, unicellular, multicellular, tissue, organ, organ system, specialised



The levels of organisation in animals with an example of the levels of organisation within the circulatory system.

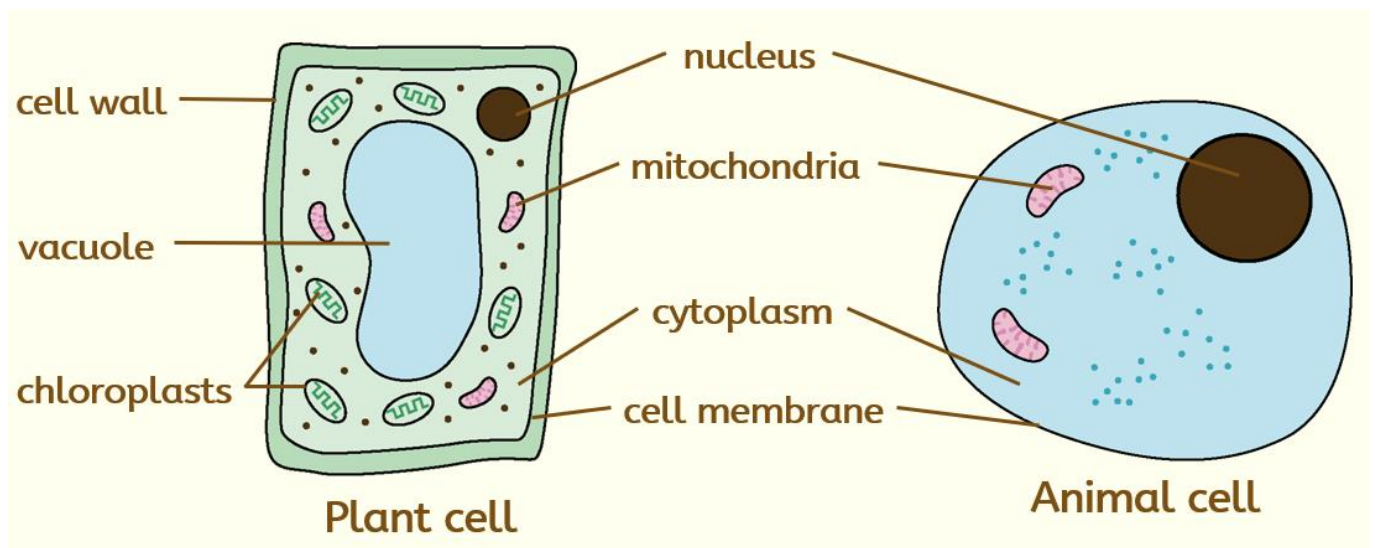
2. Animal cells and plant cells

What you need to know:

- Animal and plant cells both have a cell membrane, cytoplasm, nucleus and mitochondria.
- The cell membrane controls what enters and leaves the cell.
- The nucleus contains genetic information and controls the activities of the cell.
- Mitochondria are where respiration happens and energy is released.

- Plant cells also have a cell wall, a large vacuole and chloroplasts.
- The cell wall gives support. The vacuole contains cell sap. Chloroplasts are used in photosynthesis.

Key words: cell membrane, cytoplasm, nucleus, mitochondria, cell wall, vacuole, chloroplast



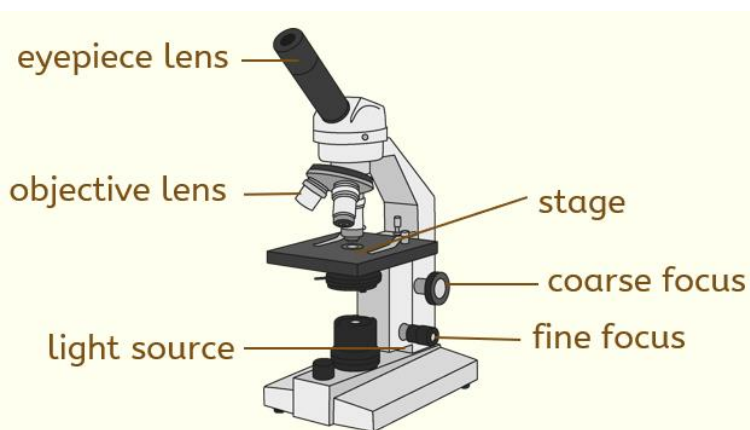
Use this diagram to practice naming the parts of an animal cell and a plant cell.

3. Microscopes

What you need to know:

- Animal and plant cells both have a cell membrane, cytoplasm, nucleus and mitochondria.
- A microscope magnifies and observes objects using lenses.
- Its main parts include the stage, eyepiece lens, objective lenses, coarse focus, fine focus and light source.
- The eyepiece lens is where we look through the microscope
- Objective lenses, typically three ($\times 4$, $\times 10$, $\times 40$), provide varying magnification levels
- The stage holds the specimen, secured by stage clips
- The light source emits light to illuminate the object (built-in or reflected by a mirror)
- Coarse focus allows rough adjustments of focus by moving the stage
- The fine focus enhances clarity.

Key words: stage, eyepiece lens, objective lenses, coarse focus, fine focus, light source



You should be able to: label a diagram of a microscope and describe how to use a microscope to view a cell/specimen.

4. Respiration and diffusion

What you need to know:

- Respiration is the process in cells that releases energy.
- Respiration uses glucose and oxygen.
- Respiration produces carbon dioxide and water.
- Diffusion is the movement of particles from a high concentration to a low concentration.
- Oxygen and carbon dioxide move in and out of cells by diffusion.
- Diffusion happens faster when the temperature is higher, when there is a larger surface area, or when the difference in concentration is bigger.

Key words: respiration, glucose, oxygen, carbon dioxide, diffusion, concentration

7.05 Organ systems

4. Unicellular organisms

What you need to know:

- Unicellular organisms are living things made of one cell only.
- Examples include bacteria, yeast and amoeba.
- Even though they are only one cell, they still carry out all the life processes.
- Some unicellular organisms are useful (e.g. yeast to make bread) and some can be harmful (e.g. some bacteria can make us ill).
- Unicellular organisms rely on diffusion to exchange substances with their surroundings.

Key words: bacteria, yeast, amoeba, unicellular

5. The respiratory system

What you need to know:

- The respiratory system is also called the gas exchange system.
- The main parts are the nose, trachea, bronchi, bronchioles, lungs, alveoli, diaphragm and intercostal muscles.
- Air moves into the lungs when the chest gets bigger and the diaphragm contracts, moving down. Air moves out when the chest gets smaller and the diaphragm relaxes, moving up.
- Gas exchange happens in the alveoli.
- Alveoli are good at diffusion because they have a large surface area, thin walls and a good blood supply.
- Air breathed in has more oxygen and less carbon dioxide than air breathed out.

Key words: respiratory system, trachea, bronchi, lungs, alveoli, diaphragm, intercostal muscles

You should be able to: label the main parts of the breathing system and explain why alveoli are adapted for gas exchange.

6. The digestive system

What you need to know:

- The digestive system breaks food into smaller pieces so nutrients can be absorbed into the blood.
- The main organs are the mouth, oesophagus, stomach, small intestine, large intestine, rectum and anus.
- Mechanical digestion means breaking food into smaller pieces, for example by chewing.
- Chemical digestion uses substances in the digestive system to break food down.
- The small intestine absorbs digested food into the blood by diffusion.
- The small intestine has villi, which give it a very large surface area, a good blood supply and thin walls for diffusion.
- The large intestine reabsorbs water.

Key words: digestive system, oesophagus, stomach, small intestine, large intestine, villi, absorb

7. The circulatory system

What you need to know:

- The circulatory system includes the heart, blood and blood vessels.
- The heart has four chambers: two atria and two ventricles.
- Arteries carry blood away from the heart. Veins carry blood back to the heart. Capillaries are tiny vessels where substances are exchanged.
- Red blood cells carry oxygen.
- White blood cells help defend the body against disease.
- Platelets help blood to clot.
- Plasma is the liquid part of blood and carries substances around the body.

Key words: circulatory system, heart, atria, ventricles, artery, vein, capillary, plasma, platelet

You should be able to: compare arteries, veins and capillaries and state the job of each part of blood.

8. The musculoskeletal system

What you need to know:

- The skeleton supports the body, protects organs and helps movement.
- Bones are living tissues.
- Joints connect bones.

- Ligaments join bone to bone. Tendons join muscle to bone.
- Cartilage helps reduce friction in joints.
- Muscles contract and pull on bones to create movement.
- Muscles often work in antagonistic pairs, such as the biceps and triceps.

Key words: skeleton, joint, ligament, tendon, cartilage, muscle, antagonistic pair

Chemistry

There will be 1 Chemistry Paper, which will be 30 minutes long.

Chemistry

These topics are about particles, pure substances and mixtures, chemical changes, and different kinds of materials.

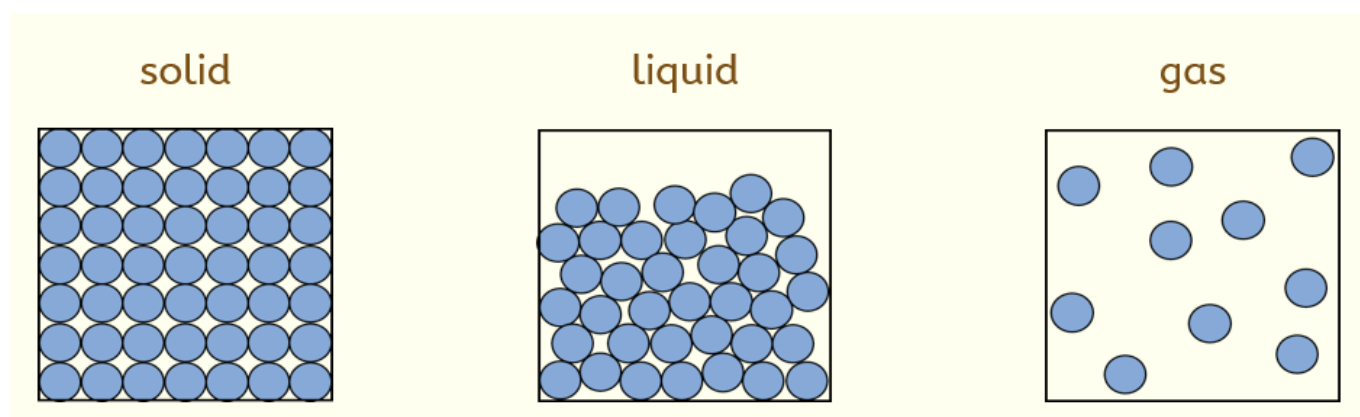
7.01 Particles, Substance and Mixtures

1. The particle model of matter

What you need to know:

- All matter is made of tiny particles.
- A solid has particles that are close together in a fixed arrangement and only vibrate.
- A liquid has particles that are close together but can move past each other.
- A gas has particles that are far apart and move quickly in random directions.
- Heating gives particles more energy so they move faster.
- Cooling removes energy so particles move more slowly.

Key words: matter, particle model, solid, liquid, gas



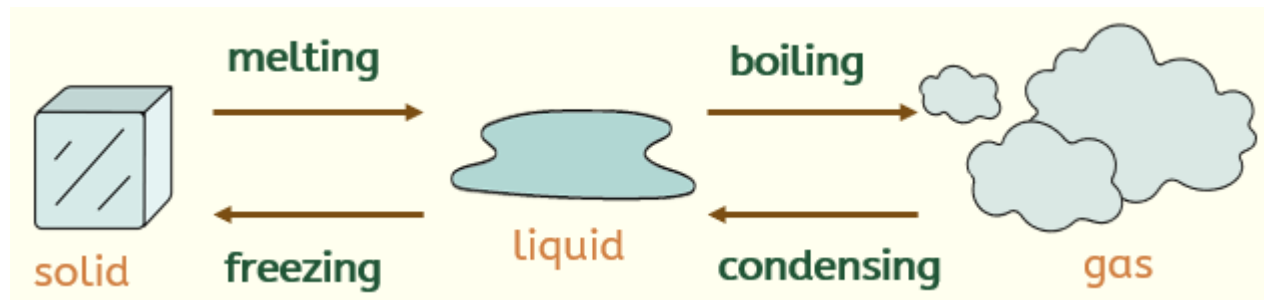
Use this diagram to practice particle diagrams.

2. Changes of state

What you need to know:

- Changing state is a physical change because no new substance is made.
- Melting is solid to liquid. Freezing is liquid to solid.
- Boiling is liquid to gas. Condensation is gas to liquid.
- During a change of state, particles are arranged differently and move differently.
- Every pure substance has a fixed melting point and boiling point.
- Water melts at 0 degrees Celsius and boils at 100 degrees Celsius.

Key words: physical change, melting, freezing, boiling, condensation, melting point, boiling point



Use this diagram to practice the names of changes of state.

3. Gas pressure

What you need to know:

- Gas particles move around quickly and hit the inside walls of a container.
- These collisions create gas pressure.
- Gas pressure increases if the gas is heated because the particles move faster.
- Gas pressure can also increase if more gas particles are added to the container.

Key words: gas pressure, collision

4. Pure substances and solutions

What you need to know:

- A pure substance contains only one substance.
- A mixture contains two or more substances together.
- A solute dissolves in a solvent to make a solution.
- If the solvent is water, the solution is called aqueous.
- A solution is clear, although it may be coloured.
- A saturated solution cannot dissolve any more solute.

Key words: pure, solution, solute, solvent, aqueous, saturated

5. Separating mixtures

What you need to know:

- Mixtures can be separated because the substances in them are not chemically joined.
- Filtration can separate an insoluble solid from a liquid.
- Evaporation can remove a solvent and leave the dissolved solid behind.
- Crystallisation can make crystals from a solution.
- Distillation can separate liquids with different boiling points.
- Chromatography can separate some dissolved substances, such as dyes.
- Magnets and sieves can also be used for some mixtures.

Key words: filtration, evaporation, crystallisation, distillation, chromatography, insoluble

You should be able to: choose the correct method to separate a given mixture.

7.04 Chemical changes

6. Atoms, elements, compounds and mixtures

What you need to know:

- Atoms are very small particles that make up all matter.
- An element is made from one type of atom only.
- A compound is made from two or more different atoms chemically joined together.
- A mixture is made from two or more substances that are not chemically joined.
- The properties of a compound are different from the properties of the elements in it.
- You should be able to recognise an element, a compound or a mixture from a particle diagram.

Key words: atom, element, compound, mixture, chemically joined

7. Chemical symbols and formulae

What you need to know:

- Each element has its own chemical symbol, such as H for hydrogen or O for oxygen.
- A chemical formula shows the types and numbers of atoms in a substance.
- For example, H₂O means each molecule has 2 hydrogen atoms and 1 oxygen atom.
- O₂ means a molecule made of 2 oxygen atoms.

Key words: chemical symbol, formula, H₂O, O₂

8. Chemical changes

What you need to know:

- A physical change does not make a new substance.
- A chemical change makes one or more new substances.
- Signs of a chemical reaction can include bubbles of gas, a colour change, a temperature change, a new solid forming, or light or sound being produced.
- The starting substances are called reactants.
- The new substances made are called products.
- In a chemical reaction, atoms are rearranged.

Key words: chemical change, physical change, reactant, product

9. Types of reaction

What you need to know:

- Oxidation happens when a substance reacts with oxygen.
- Combustion is when a fuel burns in oxygen and usually makes carbon dioxide and water.
- Thermal decomposition is when a compound splits apart when heated.
- Exothermic reactions transfer energy to the surroundings, so the surroundings get warmer.
- Endothermic reactions take in energy from the surroundings, so the surroundings get cooler.

Key words: oxidation, combustion, thermal decomposition, exothermic, endothermic

7.07 Materials

10. Metals, non-metals, ceramics and polymers

What you need to know:

- Most metals are shiny, strong, malleable and good conductors of heat and electricity.
- Most non-metals are dull, brittle and poor conductors of heat and electricity.
- Ceramics are hard, strong but brittle, and have high melting points.
- Polymers are long chain molecules made from repeating units called monomers.
- Many polymers are useful because they can be moulded and are durable.
- Some polymers cause environmental problems because they take a very long time to break down.

Key words: metal, non-metal, ceramic, polymer, monomer, malleable, conductor

English

The end of year assessment for English will assess both reading and writing skills.

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

Paper 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.

Paper 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 Paper:** Demonstrate understanding of the text, make detailed inferences supported by evidence, and present ideas logically using appropriate academic style and language.
- **Writing Paper:** Develop ideas creatively with control over narrative techniques, structure, and style, and show accurate spelling, punctuation, and grammar.

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	✓	Linguistic structures
	Name, age where you live		Infinitives
	Classroom vocab		Present tense verbs
	Days, months, numbers		Negatives
	Birthdays		Opinions and justifications
	Giving opinions		Agreement of adjectives
	Free time activities		Connectives
	Weather		Quantifiers
	Family		Time expressions
	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		

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 45 minutes long, worth 40 marks.

It will contain questions relating to the following units:

- Geographical skills
- Introduction to global climate
- Development
- Rivers
- World of work

Useful resources:

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

Introduction to geographical skills

Continents, oceans and countries in the UK

Longitude and latitude

Introduction to geographical skills

Maps and symbols

OS maps use symbols to show human and physical features. Maps have a title, labels, a compass rose, a scale and a key.

Four-figure grid references

Four-figure grid references are used to describe locations on an OS map.

1. Look at the bottom-left corner of the square.
2. Find the easting.
3. Find the northing.
4. Write down the four-figure grid reference.

Key vocabulary

- **Continent** - One of the seven large land masses on Earth
- **Longitude** - The lines down the earth showing east or west
- **Latitude** - The lines across the earth showing north and south
- **Eastings** - The grid reference along the bottom
- **Northings** - The grid reference up the side
- **Contour lines** - Brown lines on a map that show height
- **Relief** - The height of the land
- **Topography** - The shape and physical features of an area
- **Altitude** - Height above sea level (measured in metres).
- **OS map** - Ordnance Survey is a map of areas of the UK

Relief

Height on a 2D map can be shown using three methods:

- Spot heights** - a dot giving the exact height of a specific point.
- Colour layering** - different heights are shown by bands of different colours.
- Contour lines** - brown lines connecting areas of the same height.

Introduction to global climate

Climate zones

Climate zones are areas in the world that have a similar climate. There are several major climate zones in the world, and the main six are shown on this map. The climate zones generally group together horizontally, following lines of latitude.

Biomes

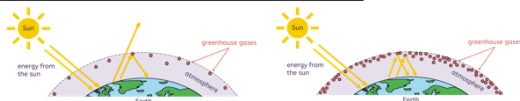
Biomes are areas of the world that, because of similar climates, have similar landscapes and wildlife. Biomes are shown on the map.

Key Vocabulary

- **greenhouse gases** - gases such as carbon dioxide that trap heat within the atmosphere
- **the greenhouse effect** - the natural warming of the planet to its habitable temperature, caused by trapping heat in the Earth's atmosphere
- **the enhanced greenhouse effect** - the unnatural warming of the Earth due to increased greenhouse gases in the atmosphere
- **global warming** - the increase of average temperatures on Earth; this happens naturally but happens faster due to the enhanced greenhouse effect
- **climate change** - the change in the Earth's long-term weather patterns, including precipitation, wind and temperature
- **fossil fuel** - a (chemical) store of energy formed over millions of years from dead plants and animals

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:

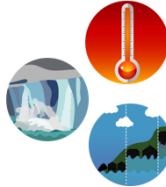
- burning fossil fuels for transport and electricity generation, which releases greenhouse gases
- deforestation, which reduces the absorption of greenhouse gases
- agriculture and waste disposal, which release greenhouse gases



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 low cost.	Natural habitats will be destroyed by the reservoir.
It produces electricity that the DRC can sell to 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 empowers indigenous women.	It is small scale, so it has limited reach.	It does not stop illegal logging.
Women earn money from selling fruit and herbs from the trees planted.	It reduces the impact of climate change through reforestation.	The project currently supports only 700 women.	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 place where the river enters a lake, sea or ocean.
- 3 mouth (n) a smaller river that joins a larger river.
- 4 confluence (n) the point at which two or more rivers meet.
- 5 watershed (n) the dividing line between two drainage basins.

B) The river profile

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

C) River processes

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

D) River features – waterfalls

- 1 waterfall (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	Causes	Effects	Responses
Southeast England, Flood 2014 Rivers Frome and Tone	deforestation on the floodplain	600 homes flooded	25,000 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	6,850 hectares of agricultural land flooded	Hundreds of people were evacuated from their homes.
	built-up of sediment in the channel from lack of dredging	Native bird species couldn't hunt on the flooded ground.	The Environment Agency is spending £6 million a year on dredging the rivers Frome and Tone.

Geography | 7.04 – Development | Knowledge Organiser

World of work		D) Employment structures and development													
Background A The world of work can be classified into four different employment sectors. B Many factors influence the type of employment sector which will be found within a particular country. C Industrial location is influenced by some key factors, which are more important for some industries in comparison to others. D Employment structure within countries varies based upon the level of development. E Trade, imports and exports. F Employment sectors and impact of industry in Russia.		Countries developing countries emerging countries developed countries Change Falling primary and secondary sector Growing tertiary sector													
A) Employment sectors 1 employment (n) when people are in work, receiving a wage and paying tax. 2 unemployment (n) when people are not in work, therefore do not receive a wage and do not pay tax. 3 primary industries (n) industries which collect or extract natural resources from the environment, such as farming or fishing. 4 secondary industries (n) industries which manufacture goods into products, such as builders, car manufacturers or food processing. 5 tertiary industries (n) industries that provide a service, such as teachers, doctors, sales, hairdressers or bus drivers. 6 quaternary industries (n) industries that involve using technology, design and research, including computer scientists, game designers, computer engineers and research scientists.		Industries Large primary sector, growing secondary sector and a moderate tertiary sector. Large secondary sector, rapidly falling primary sector and growing tertiary sector. A large tertiary sector, a growing quaternary sector, both secondary and primary employment is low.													
B) Influences on employment structures 1 industrialisation (n) a move from primary employment to secondary employment, with a rise in manufacturing. 2 mechanisation (n) when machinery begins to do the jobs which once required humans. 3 disposable income (n) the money a person has left to spend after they have paid all their bills. 4 public services (n) a service that is given or funded for the benefit of the community.		Change 1. Cheaper to import. 2. Mechanisation has taken jobs. 3. Raw materials have been exhausted in certain areas. 1. Disposable income has increased, so a greater demand for services. 2. A large public sector e.g. health and education, due to a high tax revenue.													
C) The location of industries 1 site (n) the actual place where a settlement first grew up. This refers mainly to its physical setting. 2 situation (n) the location of a place relative to other features nearby. 3 footloose (adj) industries which are not tied to a specific location and can operate from anywhere. 4 raw materials (n) natural resources that are used to make other things. 5 labour (n) workers, employed people. 6 market (n) a place where things are bought and sold.		F) Case study: World of work in Russia Factors effecting trade in Russia <table border="1"> <thead> <tr> <th>Opportunities</th> <th>Challenges</th> </tr> </thead> <tbody> <tr> <td>With a working population of over 75 million people, Russia has one of the largest workforces in the world.</td> <td>Russia is at war with Ukraine which affects international relationships.</td> </tr> <tr> <td>The Steppes and temperate woodlands of western Russia are fertile and flat.</td> <td>Russia has the largest land mass of any country.</td> </tr> <tr> <td>Russia has an extensive network of roads, railways, ports and pipelines.</td> <td>Russia does not have a warm water port.</td> </tr> <tr> <td>Russia has vast reserves of natural resources including oil and natural gas.</td> <td>Many countries aim to buy and use less oil and natural gas in the future to mitigate the effects of climate change.</td> </tr> <tr> <td>Russia's education system puts a strong focus on science, technology, engineering and maths (STEM).</td> <td></td> </tr> </tbody> </table>		Opportunities	Challenges	With a working population of over 75 million people, Russia has one of the largest workforces in the world.	Russia is at war with Ukraine which affects international relationships.	The Steppes and temperate woodlands of western Russia are fertile and flat.	Russia has the largest land mass of any country.	Russia has an extensive network of roads, railways, ports and pipelines.	Russia does not have a warm water port.	Russia has vast reserves of natural resources including oil and natural gas.	Many countries aim to buy and use less oil and natural gas in the future to mitigate the effects of climate change.	Russia's education system puts a strong focus on science, technology, engineering and maths (STEM).	
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E) Trade 1 trade (n) the exchange of goods and materials between countries. 2 import (v) goods brought into a country. 3 export (v) sending goods to another country for sale. 4 trade bloc (n) an arrangement in which participant countries lower trade barriers with one another. 5 tariff (n) a tax imposed on goods when they are imported or exported between countries.															

- 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 – 45 minutes – non-calculator

Paper 2 – 45 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
<input type="checkbox"/> 7.01	Numerical Skills	M763, M704, M522, M527, M135, M111, M431, M878
<input type="checkbox"/> 7.02	Order of operations	M521
<input type="checkbox"/> 7.03	Introduction to Algebra	M106, M830, M813, M795, M531, M417, M327, M208, M979
<input type="checkbox"/> 7.04	Primes, Factors and Multiples	M227, M823, M698, M322, M829
<input type="checkbox"/> 7.05	Expanding and Factorising 1	M288, M237, M792, M100
<input type="checkbox"/> 7.06	Addition and Subtraction	M928, M429, M347, M152, M899
<input type="checkbox"/> 7.07	Perimeter	M920, M635, M690
<input type="checkbox"/> 7.08	Mean	M940
<input type="checkbox"/> 7.09	Multiplication and Division	M113, M911, M187, M803, M462, M354, M873, M262
<input type="checkbox"/> 7.10	Area of triangles and quadrilaterals	M900, M390, M291, M610, M269, M996
<input type="checkbox"/> 7.11	Fraction Manipulation	M158, M410, M671, M939, M601
<input type="checkbox"/> 7.12	Adding and Subtracting Fractions	M835, M931
<input type="checkbox"/> 7.13	Comparing and Ordering Fractions	M335, M958
<input type="checkbox"/> 7.14	Fractions of amounts	M695
<input type="checkbox"/> 7.15	Polygons	M276, M523
<input type="checkbox"/> 7.16	Angles	M502, M541, M780, M331, M818, M351, M679, M319
<input type="checkbox"/> 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 30 minutes long.

These topics are about forces and energy, and how sound and light behave.

7.02 Fundamentals of Physics

1. Forces

What you need to know:

- A force is a push or a pull.
- Forces have size and direction.
- Some forces are contact forces, such as friction, air resistance and water resistance.
- Some forces are non-contact forces, such as gravity and magnetism.
- Weight is the force caused by gravity.
- A force can change the speed, direction or shape of an object.

Key words: force, contact force, non-contact force, gravity, weight, friction

2. Force diagrams and resultants

What you need to know:

- Forces can be shown using arrows.
- A longer arrow means a bigger force.
- The direction of the arrow shows the direction of the force.
- The resultant force is the overall force after all the forces have been combined.
- Balanced forces give a resultant force of zero.
- Unbalanced forces give a non-zero resultant force and can change motion.

Key words: arrow, resultant force, balanced, unbalanced

You should be able to: draw a simple force diagram and work out the direction of the resultant force.

3. Deformation and friction

What you need to know:

- A force can stretch or squash an object.
- Stretching is linked to tension.
- Squashing is linked to compression.
- Friction resists motion between surfaces.
- Friction can be useful, for example when walking, but it can also be unwanted.
- Lubricants can reduce friction.

Key words: tension, compression, friction, lubricant

4. Energy stores and transfers

What you need to know:

- Energy is stored in different ways.
- Year 7 energy stores include chemical, kinetic, elastic, gravitational and thermal stores.
- Energy can be transferred mechanically, electrically, by heating, by radiation and by chemical reactions.
- Energy is conserved. It does not disappear.

- Energy often spreads to the surroundings, usually to the thermal store, which can make energy less useful.

Key words: energy store, chemical, kinetic, elastic, gravitational, thermal, conserved

7.06 Sound and Light

5. Sound

What you need to know:

- Sound is made when objects vibrate.
- Sound travels through solids, liquids and gases, but not through a vacuum.
- Louder sounds have a bigger amplitude.
- Higher pitch means higher frequency.
- Sound gets quieter as you move further from the source.
- Soft materials absorb sound better than hard materials.
- Hard flat surfaces can reflect sound and produce echoes.

Key words: sound, vibration, amplitude, frequency, pitch, echo, vacuum

6. Light

What you need to know:

- Luminous objects give out light.
- Light travels in straight lines.
- Light can travel through a vacuum.
- Transparent materials let light through. Opaque materials do not.
- Shadows form when light is blocked.
- Light can be reflected, absorbed, transmitted or scattered.

Key words: luminous, transparent, opaque, shadow, reflection, absorb, transmit, scatter

7. Colour and refraction

What you need to know:

- White light is made from a mixture of colours.
- The visible spectrum is red, orange, yellow, green, blue, indigo and violet.
- A prism can split white light into its colours.
- Coloured filters let their own colour through and absorb other colours.
- Refraction is when light changes direction because it changes speed when it enters a different material.
- You should know that reflected light entering our eyes lets us see objects.

Key words: spectrum, prism, filter, refraction, visible light

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

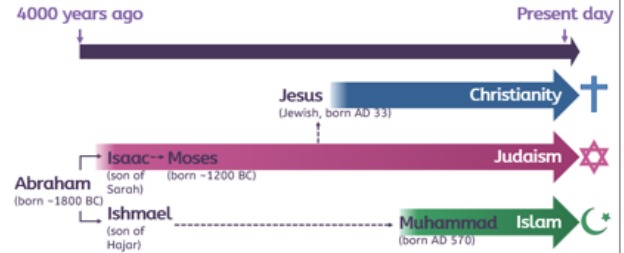
You should use the below to help you revise:

- 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 <u>action</u> 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 <u>in order to</u> 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 16 th 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	✓	Linguistic structures
	Name, age where you live		Infinitives
	Classroom vocab		Present tense verbs
	Days, months, numbers		Negatives
	Birthdays		Opinions and justifications
	Giving opinions		Agreement of adjectives
	Free time activities		Connectives
	Weather		Quantifiers
	Family		Time expressions
	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		

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			
Monday			
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