

# **YEAR 9 SUMMER ASSESSMENTS REVISION BOOKLET**

**NAME:**

**Tutor groups: O9G,P9G, T9G (Spanish)**

**Write your name on the booklet.**

**Look after the booklet carefully. Bring it to school every day and take it home with you.**

This booklet contains checklists for English, Maths, Science, Geography, History, Spanish, RE and Computer Science. There is revision material for you to learn with each checklist, except for Maths.

Maths have made practice papers for you but these are on line. If you need a paper copy please tell your Maths teacher, Mr Green or Ms Woolf.

There is extra revision material on the website.

On the inside cover there is a revision planner for you to plan out your revision.

You will have assessments in PE, Music, Drama or Dance and Art or DT. These assessments will be practical.

Year 9 Assessments will take place at the start of the Spring Term on Monday 10<sup>th</sup> June.

You need to start revising now.



# Year 9 English

## Independent Learning Revision

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	Create a character comparison chart for <i>That Hate U Give</i>
2	22/04/24	29/04/24	Annotate a key scene from <i>That Hate U Give</i>
3	29/04/24	06/05/24	Mind map Starr's internal conflict within <i>That Hate U Give</i>
4	06/05/24	13/05/24	Create a Venn diagram for characters within <i>That Hate U Give</i>
5	13/05/24	20/05/24	Write a critical reflection of <i>That Hate U Give</i>
6	20/05/24	03/06/24	Note the literacy devices <i>That Hate U Give</i> uses
7	03/06/24	10/06/24	Respond to the <i>That Hate U Give</i> in a

Please also remember to check Seneca Learning for revision tasks to complete for the examinations

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vocabulary, and writing brief annotations in the margins. Focus on understanding the author's craft and the scene's contribution to the story.

- **Create a Power Dynamics Timeline:** Research and list the different social institutions and groups in the story (police, school, media, gangs). Create a timeline tracing how these groups hold power and influence throughout the story. Use visuals like lines, arrows, and symbols to represent power dynamics and their shifts.

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- **Connecting to the World:** Research current events or historical figures that relate to the themes explored in the book. Create a presentation or infographic comparing and contrasting these events/figures with the story, highlighting the ongoing fight for social justice.

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devices like metaphors, similes, and symbolism. Identify specific examples, analyse their effect on the story, and explain how they contribute to character development or theme exploration.

- **Character Motivation Analysis:** Choose a complex character (e.g., Officer Liske, Mr. Starr) and analyse their motivations throughout the story. Consider their actions, dialogue, and interactions with other characters. Write a short analysis explaining their motivations and how they evolve throughout the narrative.

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## YEAR 9 – Injustice and Resistance



How do writers across time explore relationships?			
<b>Key Vocabulary and Terminology</b> – <i>Can you define the words? Can you use them in a sentence?</i>	😊	😐	😞
I know the key themes of the text			
I know the historical context of the text			
I can define all of the key vocabulary and terminology from the knowledge organiser			
I can use all of the key vocabulary and terminology in sentences			
I can explain how all of the key vocabulary and terminology relates to the texts I have studied this term			
<b>Key Skills</b> – <i>Can you do these in your written work?</i>	😊	😐	😞
I can make a detailed point about a character			
I can select and embed evidence from a text to support my points			
I can explain what evidence denotes (what it means in a literal sense)			
I can make inferences using evidence, and offer multiple interpretations using connectives such as ‘furthermore’ and ‘however’			
I can explain what a writer’s choice of words/phrases suggests, and what ideas it gives the reader about a character or place			
I can identify language techniques that a writer has used, and give multiple interpretations about their effect/meaning			
I can use context to explain the characters’ decisions, and the writer’s big ideas/themes/messages			
<b>Key Literacy</b> – <i>Can you use these sentence structures in your writing?</i>	😊	😐	😞
The writer presents _____ as _____			
We see this in the phrase, “_____.”			
This could suggest/ imply/convey/ illustrate / demonstrate / highlight / that...			

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# The Hate U Give- Knowledge Organiser

1. Context		3. Central Themes/Big Ideas		5. Key Terminology	
<p><b>Genre:</b> Young Adult, Social commentary</p> <p><b>Themes:</b> Racism, Police brutality, Black Lives Matter</p> <p>Inspired by Trayvon Martin's tragic death</p> <p>Witnessing your friend's senseless shooting</p> <p>Protests echoing George Floyd's "I can't breathe"</p> <p>Code-switching between your neighborhood and school</p> <p>Demanding justice, demanding systemic change</p> <p>Stephen Lawrence tragedy</p>	<p><b>BLM:</b> The Black Lives Matter movement is a major inspiration driving the novel's plot. Starr witnesses the fatal police shooting of her friend Khalil, an event mirroring the tragedies that sparked BLM protests.</p> <p><b>Race:</b> The book starkly portrays systemic racism and its effect on Starr's life. She navigates racial prejudice in her prep school environment and the injustices her Black community faces.</p> <p><b>Protests:</b> Starr becomes involved in protests demanding justice for Khalil. These protests reflect the real-world BLM demonstrations that challenge police brutality and demand racial equality.</p>	<p><b>Racism and Police Brutality:</b> The novel confronts the devastating impact of systemic racism, exemplified by the unjust killing of Starr's friend Khalil by a police officer.</p> <p><b>Identity and Code-Switching:</b> Starr navigates the divide between her black neighborhood and predominantly white prep school, constantly shifting how she speaks and acts to fit in.</p> <p><b>The Power of Voice:</b> Starr discovers her voice in the wake of tragedy, using it to speak out against injustice and demand change for her community.</p> <p><b>Family and Community:</b> The novel highlights the importance of family and community as sources of support and strength when Starr faces adversity and confronts systemic injustice.</p>	<p><b>Characterisation</b> The creation or construction of a fictional character, through physical appearance, behaviour, dialogue, setting etc</p> <p><b>Social Realism</b> depicts everyday struggles to critique social conditions.</p> <p><b>Narrative</b> A series of events that make up a story with a beginning, middle and end</p> <p><b>Contrast</b> Different ideas/objects/characters placed near each other to highlight the ways in which they differ</p> <p><b>Social criticism</b> A genre of fiction that seeks to highlight the problems in society, and call for change</p> <p><b>Bildungsroman</b> Bildungsroman is a genre of novel that shows a young protagonist's journey from childhood to adulthood (or immaturity to maturity).</p> <p><b>Flashback/forward</b> A flashback is a scene that takes place before a story begins. Flashbacks interrupt the chronological order of the main narrative to take a reader back in time to the past events in a character's life.</p> <p><b>Focaliser</b> A character through which the story is told, and whose perspective the story is told from.</p> <p><b>Changing narrative perspective</b> Characters are assigned a narrative perspective that is different from the one originally used by the writer.</p> <p><b>Dramatic irony</b> Dramatic irony occurs when the audience or readers know more about a situation than the character does.</p> <p><b>Proleptic irony / foreshadowing</b> Proleptic irony occurs when an earlier event gives the audience a clue ("foreshadows") a later event in the play.</p> <p><b>Narrative voice</b> Narrative voice is the perspective the story is told from.</p> <p><b>Homodiegetic narrator</b> A narrator who is also a character in the story - often an unreliable narrator</p> <p><b>Change in pace/ tone</b> An author may speed up or slow down a narrative using action-packed scenes, long descriptions, dialogue etc. They may also choose to vary the tone</p> <p><b>Suspense</b> The sense that something dramatic is about to happen</p> <p><b>Exposition</b> Giving the reader new information about a character/situation</p> <p><b>Withholding Information</b> When the writer holds some information back from the reader e.g. who is kidnapping the children</p> <p><b>Motif</b> A recurring image or idea</p>		
<p><b>2. Key Characters</b></p> <p><b>Starr Carter:</b> The protagonist, a 16-year-old navigating two worlds and witnessing her friend's unjust death.</p> <p><b>Khalil Harris:</b> Starr's childhood friend, tragically killed by a police officer during a traffic stop.</p> <p><b>Maverick "Big Mav" Carter:</b> Starr's father, a former gang member, strong influence and source of guidance.</p> <p><b>Lisa Carter:</b> Starr's mother, devoted and protective, ensuring her children have a brighter future.</p> <p><b>Uncle Carlos:</b> Starr's uncle, a police officer offering a different perspective on law enforcement.</p> <p><b>Chris:</b> Starr's boyfriend from her prep school, supportive but initially struggles to understand her experiences.</p>	<p><b>4. Thematic Vocabulary</b></p> <p><b>Code-switching:</b> Changing language/behavior to fit different social contexts.</p> <p><b>Systemic Racism:</b> Prejudice embedded in institutions, creating disadvantage for certain groups</p> <p><b>Stereotype:</b> Oversimplified and often harmful generalization about a group.</p> <p><b>Activism:</b> Working to create social or political change.</p> <p><b>Privilege:</b> Unearned advantage based on race, class, or other factors.</p> <p><b>Implicit Bias:</b> Unconscious stereotypes influencing actions and decisions.</p> <p><b>Intersectionality:</b> Overlapping systems of oppression (race, gender, class, etc.).</p> <p><b>Allyship:</b> Supporting marginalized groups through actions and advocacy.</p> <p><b>Resilience:</b> Strength to overcome adversity and fight for justice.</p> <p><b>Injustice:</b> Unfair treatment or violation of rights.</p> <p><b>Protest:</b> Collective action to demonstrate disapproval and demand change.</p> <p><b>Empowerment:</b> Gaining the power to speak out and create change.</p> <p><b>Accountability:</b> Holding those in power responsible for their actions.</p> <p><b>Hope:</b> Belief in the possibility of a better future.</p>				

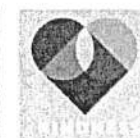


# Year 9 Maths

## Independent Learning Revision

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	Complete and mark unit tests 1 and 2. These can be found on the school website. Follow the link provided
2	22/04/24	29/04/24	Complete and mark unit tests 3 and 4. These can be found on the school website. Follow the link provided
3	29/04/24	06/05/24	Complete and mark unit tests 5 and 6. These can be found on the school website. Follow the link provided
4	06/05/24	13/05/24	Complete and mark unit tests 7 and 8. These can be found on the school website. Follow the link provided
5	13/05/24	20/05/24	Complete and mark the end of term tests. These can be found on the school website. Follow the link provided
6	20/05/24	03/06/24	Revise the formulae on the formulae sheet which can be found on the school website. Follow the link provided
7	03/06/24	10/06/24	Revise the keywords/phrases which are provided on the PLC page
<p><b>Please also remember to check Seneca Learning for revision tasks to complete for the examinations</b></p>			

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**YEAR 9 end of year exam** – checklist

	😊	😐	😞
Establish index laws for positive powers where the answer is a positive power.			
Substitute positive integers into expressions involving small powers (up to 3).			
Write down whole number values that satisfy an inequality.			
Solve simple equations involving squares.			
Read and construct scale drawings.			
Use proportional reasoning to solve a problem.			
Use straight edge and compasses to construct the midpoint and perpendicular bisector of a line segment.			
Write questionnaire questions to eliminate bias, on timing and location of survey to ensure sample is representative.			
Identify parallel lines from their equations when they are in the form $y = mx + c$			
Identify the $y$ -intercept from an equation $y = mx + c$			
Use the formulae for the area of a circle, given the radius or diameter.			
Multiply out brackets involving positive or negative terms $(a \pm b)(c \pm d)$			
Write numbers greater than 10 in standard index form.			
Find an unknown where it is not the subject of the formula and where an equation must be solved. Deduce and use the formula for the area of a trapezium.			
Interpret dual bar charts.			
Calculate the mean and range from a frequency table for discrete data.			
Solve problems involving percentage change.			
Enlarge 2D shapes, given a centre of enlargement and a positive whole number scale factor.			
Begin to use linear expressions to describe the $n$ th term in a two-step arithmetic sequence.			
Know the formula for Pythagoras' theorem and use to find the hypotenuse.			
Read, interpret and construct tables, bar charts, pictograms, pie charts and line graphs and use these to solve problems.			
Estimate the mean of grouped data using the mid-interval value.			
Write questionnaire questions to eliminate bias, on timing and location of survey to ensure sample is representative.			
Use and interpret maps, using proper map scales (1 : 25 000)			
Evaluate a number written with a negative power. Use the laws of indices for a number written in index form raised to a power.			
Describe an enlargement using the scale factor and the centre of enlargement where the scale factor is negative and a fraction.			
Construct equations and linear graphs from real-life contexts to solve problems.			
Generate points and plot graphs of simple quadratic functions, then more general functions.			
Interpret information from a complex real-life graph (fixed charge/unit cost), read values and discuss trends.			



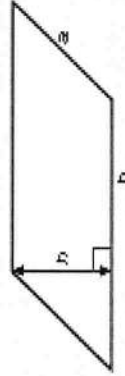
# Formulae for KS3 End-Of-Year Tests

## Areas

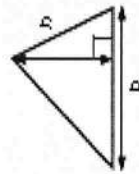
Rectangle =  $l \times w$



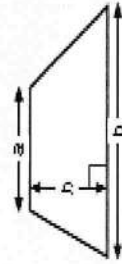
Parallelogram =  $b \times h$



Triangle =  $\frac{1}{2} b \times h$

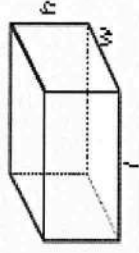


Trapezium =  $\frac{1}{2} (a + b)h$

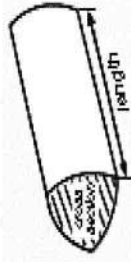


## Volumes

Cuboid =  $l \times w \times h$



Prism = area of cross section  $\times$  length



Cylinder =  $\pi r^2 h$

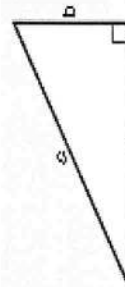


## Pythagoras

### Pythagoras' Theorem

For a right-angled triangle,

$$a^2 + b^2 = c^2$$



### Trigonometric ratios (new to F)

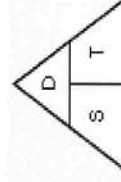
$$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}, \cos x^\circ = \frac{\text{adj}}{\text{hyp}}, \tan x^\circ = \frac{\text{opp}}{\text{adj}}$$



## Compound measures

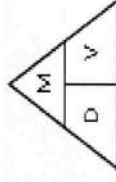
### Speed

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$



### Density

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$



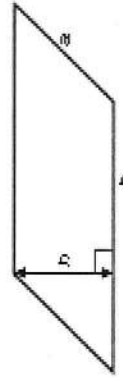
# Formulae for Year 9 End-Of-Year Tests

## Areas

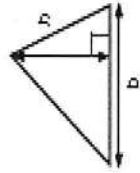
Rectangle =  $l \times w$



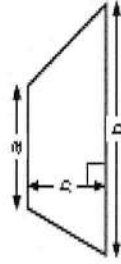
Parallelogram =  $b \times h$



Triangle =  $\frac{1}{2} b \times h$

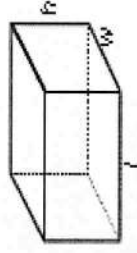


Trapezium =  $\frac{1}{2} (a + b)h$

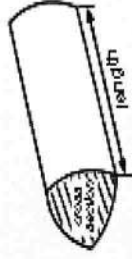


## Volumes

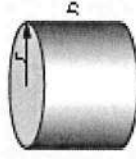
Cuboid =  $l \times w \times h$



Prism = area of cross section  
 $\times$  length



Cylinder =  $\pi r^2 h$

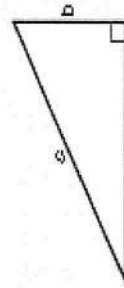


## Pythagoras

### Pythagoras' Theorem

For a right-angled triangle,

$$a^2 + b^2 = c^2$$



### Trigonometric ratios (new to P)

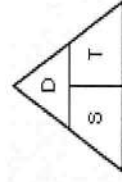
$$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}, \cos x^\circ = \frac{\text{adj}}{\text{hyp}}, \tan x^\circ = \frac{\text{opp}}{\text{adj}}$$



## Compound measures

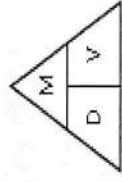
### Speed

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$



### Density

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$





# Year 9 SCIENCE

## Independent Learning Revision

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	Choose one of the revision activities and revise Cells
2	22/04/24	29/04/24	Choose one of the revision activities and revise Transport in cells. Review Cell division and Stem Cells
3	29/04/24	06/05/24	Choose one of the activities and revise the Heart and Heart Disease. Review Diffusion, Osmosis and Active Transport.
4	06/05/24	13/05/24	Choose one of the activities and revise Transport in Plants. Review The Heart
5	13/05/24	20/05/24	Choose one of the activities and revise Atomic Structure and Bonding.
6	20/05/24	03/06/24	Choose one of the activities and revise Energy. Review Atomic Structure
7	03/06/24	10/06/24	Choose one of the activities and revise Particle Model of Matter. Review Bonding

You can use the quiz questions to make flash cards, mind maps, or Q and Answer cards. Use the knowledge organiser and checklist to make Cornell notes or to look for answers.

**Please also remember to check Seneca Learning for revision tasks to complete for the examinations**

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## Year 9 Revision Activities

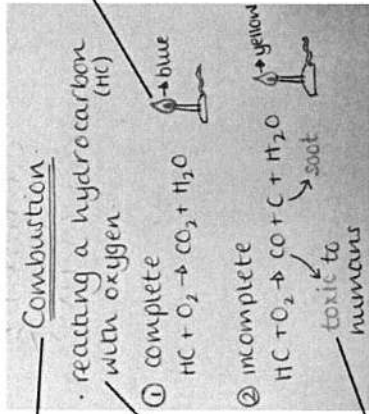
### Flash Cards

- Use small pieces of card or paper to make concise notes on a topic.

Small topics work best.

Keep notes brief.

Use colour for key words.



Using diagrams makes abstract content easier.

If required, flash cards can be obtained from the Science teacher or technician.

### Q&A Cards

- Use small pieces of card or paper to write questions on a particular topic. The answer should be written on the other side.

Animal & Plant Cell

1. What is the job of the nucleus?

2. What are 7 organelles in a plant cell?

3. What is the cell wall made from?

4. What do the bundles in the xylem do?

Animal & Plant Cell

1. Contains genetic information

2. Vacuole, nucleus, cell wall, cell membrane, cytoplasm, mitochondria, chloroplast

3. Cellulose

4. To keep the cell's shape & to store sugar

Excellent for on the bus or tube!



Keep simple. Cover the areas that you are less confident with.

Check answers by flipping over cards and repeat as much as possible.

If required, flash cards can be obtained from the Science teacher or technician.

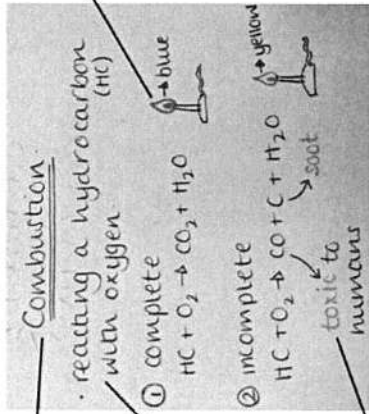
### Mind Maps

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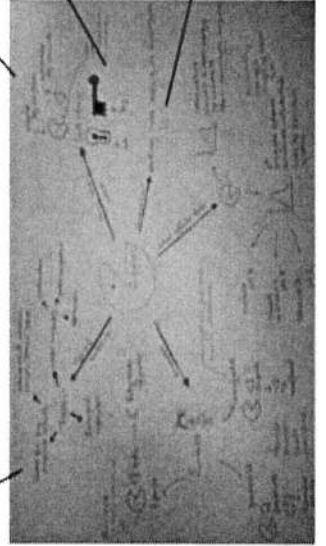


Using diagrams makes abstract content easier.

If required, flash cards can be obtained from the Science teacher or technician.

### Mind Maps

Mind map  
 Generate using short sharp sentences, key words and diagrams.



Learn it  
 Place the mind map in a prominent place.

Cover it  
 Cover the mind map with a blank sheet of paper try to redraw it.

Compare it  
 Compare the new mind map with the original – the difference between the two is what needs to be learnt.

### Cornell System

1. Notes  
 Write the revision notes.

NEXT STEPS: Cover the middle with a blank piece of paper. Use the key words and summary to write notes from memory.

3. Summary  
 Write down a mini summary of the notes which appear in the box above. This must not be copied.

4. Can then be put on a post-it/flash card.

2. Key Words  
 Read through the notes. Write down the key words/phrases.

5cm

4cm

# Year 9 AQA GCSE Science

## B1 Cell Biology and Transport



4.1.1 Cell structure			
<b>4.1.1.1 Eukaryotes and prokaryotes</b>	☺	☹	☹
Plant and animal cells (eukaryotic cells) have a <b>cell membrane</b> , <b>cytoplasm</b> and genetic material enclosed in a <b>nucleus</b> .			
<b>Bacterial cells</b> (prokaryotic cells) are much smaller in comparison. They have <b>cytoplasm</b> and a <b>cell membrane</b> surrounded by a <b>cell wall</b> . The genetic material is not enclosed in a nucleus. It is a single <b>DNA loop</b> and there may be one or more small rings of DNA called <b>plasmids</b> .			
<u>Students should be able to:</u> ★ Demonstrate an understanding of the scale and size of cells and be able to make order of magnitude calculations, including the use of standard form.			
<b>WS 4.4</b> Use prefixes <b>centi</b> , <b>milli</b> , <b>micro</b> and <b>nano</b> .			
<b>4.1.1.2 Animal and plant cells</b>	☺	☹	☹
Most <u>animal cells</u> have the following parts: <ul style="list-style-type: none"> <li>• a <b>nucleus</b>, which controls the activities of the cell</li> <li>• <b>cytoplasm</b>, in which most of the chemical reactions take place</li> <li>• a <b>cell membrane</b>, which controls the passage of substances into and out of the cell ☐</li> <li>• <b>mitochondria</b>, which is where aerobic respiration takes place ☐</li> <li>• <b>ribosomes</b>, which are where protein synthesis occurs.</li> </ul>			
In addition to the parts found in animal cells, <u>plant cells</u> often have: <ul style="list-style-type: none"> <li>☐ <b>chloroplasts</b>, which absorb light to make food by photosynthesis</li> <li>☐ a <b>permanent vacuole</b> filled with cell sap.</li> </ul>			
<u>Plant and algal cells</u> also have a <b>cell wall</b> made of <b>cellulose</b> , which strengthens the cell.			
<u>Students should be able to:</u> ★ <b>Explain</b> how the main <b>sub-cellular structures</b> , including the nucleus, cell membranes, mitochondria, chloroplasts in plant cells and plasmids in bacterial cells are related to their <b>functions</b> .			
★ Use estimations and explain what they should be used to judge the relative size or area of subcellular structures.			
<b>WS 1.2</b> Recognise, draw and interpret images of cells.			
<b>REQUIRED PRACTICAL – Microscopy. AT 1 &amp; 7</b>			
<b>4.1.1.3 Cell specialisation</b>	☺	☹	☹
Cells may be specialised to carry out a particular function: <ul style="list-style-type: none"> <li>☐ <b>sperm cells</b>, <b>nerve cells</b> and <b>muscle cells</b> in animals</li> <li>☐ <b>root hair cells</b>, <b>xylem</b> and <b>phloem cells</b> in plants.</li> </ul>			

In mitosis one set of chromosomes is pulled to each end of the cell and the <b>nucleus divides</b> .			
Finally, the cytoplasm and cell membranes divide to form <b>two identical cells</b> .			
Cell division by mitosis is important in the <b>growth</b> and <b>development</b> of multicellular organisms.			
<u>Students should:</u> ★ <b>Understand</b> the <b>three overall stages</b> of the cell cycle <i>but do not need to know the different phases of the mitosis stage</i> .			
★ Be able to recognise and describe situations in given contexts where mitosis is occurring.			
<b>4.1.2.3 Stem cells</b>	☺	☹	☹
A <b>stem cell</b> is an <b>undifferentiated</b> cell of an organism which is capable of giving rise to many more cells of the same type, and from which certain other cells can arise from differentiation.			
Stem cells from human <b>embryos</b> can be <b>cloned</b> and made to differentiate into most different types of human cells.			
Stem cells from <b>adult bone marrow</b> can form many types of cells including <b>blood cells</b> .			
<b>Meristem tissue</b> in plants can differentiate into any type of plant cell, throughout the life of the plant.			

<b>WS 1.2</b> Recognise, draw and interpret diagrams that model osmosis.			
<b>4.1.3.2 Active Transport</b> – Links with 'Cell specialisation' in term 1.	😊	😐	😞
<b>Active transport</b> moves substances from a more dilute solution to a more concentrated solution (against a concentration gradient). This <b>requires energy</b> from <b>respiration</b> .			
Active transport allows <b>mineral ions</b> to be absorbed into <b>plant root hairs</b> from very dilute solutions in the soil. Plants require ions for <b>healthy growth</b> .			
It also allows <b>sugar molecules</b> to be absorbed from lower concentrations in the <b>gut</b> into the blood which has a higher sugar concentration. Sugar molecules are used for <b>cell respiration</b> .			
Students should be able to:			
★ <b>Describe</b> how substances are transported into and out of cells by <b>diffusion, osmosis and active transport (link to the treatment for kidney failure - dialysis)</b> .			
★ <b>Explain the differences</b> between <b>diffusion, osmosis and active transport</b> .			

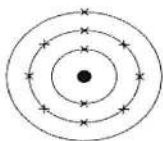
<b>4.2.2.2 The heart and blood vessels</b>	😊	😐	😞
The <b>heart</b> is an organ that <b>pumps blood</b> around the body in a <b>double circulatory system</b> .			
The <b>right ventricle</b> pumps blood to the <b>lungs</b> where gas exchange takes place.			
The <b>left ventricle</b> pumps blood around the rest of the <b>body</b> .			
Knowledge of the blood vessels associated with the heart is limited to the <b>aorta, vena cava, pulmonary artery, pulmonary vein and coronary arteries</b> . <i>Knowledge of the names of the heart valves is not required.</i>			
Knowledge of the lungs is restricted to the <b>trachea, bronchi, alveoli</b> and the <b>capillary network</b> surrounding the <b>alveoli</b> .			
The natural resting heart rate is controlled by a group of cells located in the right atrium that act as a <b>pacemaker</b> .			
<b>Artificial pacemakers</b> are electrical devices used to correct irregularities in the heart rate.			
The body contains three different types of blood vessel: <ul style="list-style-type: none"> <li>• <b>arteries</b> □</li> <li>• <b>veins</b></li> <li>• <b>capillaries</b>.</li> </ul>			

# Year 9 AQA GCSE Science

## C1 Atomic Structure and Bonding

4.1.1 Atoms, elements and compounds			
<b>4.1.1.1 Atoms, elements and compounds</b>	😊	😐	😞
All substances are made of <b>atoms</b> . An atom is the smallest part of an <b>element</b> that can exist.			
Atoms of each element are represented by a <b>chemical symbol</b> , eg O represents an atom of oxygen, Na represents an atom of sodium.			
There are about <b>100 different elements</b> . Elements are shown in the <b>periodic table</b> .			
<b>Compounds</b> are formed from elements by <b>chemical reactions</b> . Chemical reactions always involve the formation of one or more <b>new substances</b> , and often involve a detectable <b>energy change</b> .			
<b>Compounds</b> contain two or more elements <b>chemically combined</b> in fixed proportions and can be represented by formulae using the symbols of the atoms from which they were formed. Compounds can only be <b>separated</b> into elements by <b>chemical reactions</b> .			
Chemical reactions can be represented by <b>word equations</b> or equations using <b>symbols</b> and <b>formulae</b> .			
<u>Students will be supplied with a periodic table for the exam and should be able to:</u>			
★ Use the names and symbols of the <b>first 20 elements</b> in the periodic table, the elements in <b>Groups 1 and 7</b> , and other elements in this specification.			
★ Name <b>compounds</b> of these elements from given formulae or symbol equations.			
★ Write <b>word equations</b> for the reactions in this specification.			
★ Write <b>formulae</b> and <b>balanced chemical equations</b> for the reactions in this specification.			
★ (HT only) Write balanced <b>half equations</b> and <b>ionic equations</b> where appropriate.			
<b>4.1.1.2 Mixtures</b>	😊	😐	😞
A <b>mixture</b> consists of two or more elements or compounds <b>not chemically combined</b> together. The <b>chemical properties</b> of each substance in the mixture are unchanged.			
Mixtures can be <b>separated</b> by <b>physical processes</b> such as <b>filtration, crystallisation, simple distillation, fractional distillation</b> and <b>chromatography</b> . These physical processes do not involve chemical reactions.			
<u>Students should be able to:</u>			
★ <b>Describe</b> , explain and give examples of the specified processes of separation.			
★ <b>Suggest</b> suitable separation and purification techniques for mixtures when given appropriate information.			
<b>4.1.1.4 Relative electrical charges of subatomic particles</b>	😊	😐	😞

The electrons in an atom occupy the lowest available **energy levels** (innermost available **shells**). The electronic structure of an atom can be represented by numbers or by a diagram. For example, the electronic structure of **sodium** is **2,8,1** or



showing two electrons in the lowest energy level, eight in the second energy level and one in the third energy level. *Students may answer questions in terms of either energy levels or shells.*

Students should be able to:

★ Represent the electronic structures of the **first twenty elements** of the periodic table in both forms.

## 4.1.2 The periodic table

### 4.1.2.1 The periodic table



The elements in the **periodic table** are arranged in order of atomic (proton) number and so that elements with similar properties are in columns, known as **groups**. The table is called a periodic table because **similar properties** occur at regular intervals.

Elements in the **same group** in the periodic table have the same number of electrons in their outer shell (outer electrons) and this gives them **similar chemical properties**.

Students should be able to:

★ **Explain** how the position of an element in the periodic table is related to the arrangement of electrons in its atoms and hence to its atomic number.

★ **Predict** possible reactions and probable reactivity of elements from their positions in the periodic table.

### 4.1.2.2 Development of the periodic table



Before the discovery of protons, neutrons and electrons, scientists attempted to classify the elements by arranging them in order of their **atomic weights**.

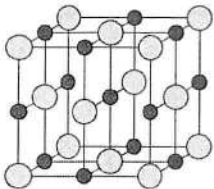
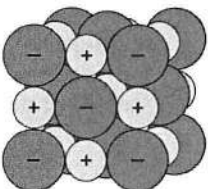
The early periodic tables were incomplete and some elements were placed in inappropriate groups if the strict order of atomic weights was followed.

### 4.1.2.4 Group 0



The elements in **Group 0** of the periodic table are called the **noble gases**. They are **unreactive** and do not easily form molecules because their atoms have **stable arrangements** of electrons. The noble gases have **eight electrons** in their outer energy level, except for helium, which has only two electrons.



4.2.1.3 Ionic compounds	☺	☹	☹
<p>An ionic compound is a <b>giant structure</b> of ions. Ionic compounds are held together by <b>strong electrostatic forces</b> of attraction between <b>oppositely charged ions</b>. These forces act in all directions in the lattice and this is called <b>ionic bonding</b>.</p>			
<p>The structure of <b>sodium chloride</b> can be represented in the following forms:</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  <p>Key ● Na<sup>+</sup> ○ Cl<sup>-</sup></p> </div> <div>  </div> </div> <p><i>Students should be familiar with the structure of <b>sodium chloride</b> but do not need to know the structures of other ionic compounds.</i></p>			
<p>Students should be able to:</p> <p>★ <b>Deduce</b> that a <b>compound is ionic</b> from a diagram of its structure in one of the specified forms</p>			
<p>★ <b>Describe</b> the <b>limitations</b> of using dot and cross, ball and stick, two and three dimensional diagrams to represent a <b>giant ionic structure</b></p>			
<p>When a metal atom reacts with a non-metal atom, <b>electrons</b> in the outer shell of the metal atom are <b>transferred</b>.</p> <p><b>Metal atoms lose electrons</b> to become <b>positively charged ions</b>.</p> <p><b>Non-metal atoms gain electrons</b> to become <b>negatively charged ions</b>.</p> <p>The ions produced by metals in Groups 1 and 2 and by non-metals in Groups 6 and 7 have the electronic structure of a <b>noble gas</b> (Group 0).</p>			
<p>The electron transfer during the formation of an ionic compound can be represented by a <b>dot and cross</b> diagram e.g. for sodium chloride:</p> $  \begin{array}{ccccccc}  \text{Na} \cdot + \begin{array}{c} \times \times \\ \times \text{Cl} \times \\ \times \times \end{array} & \longrightarrow & \left[ \text{Na} \right]^+ & \left[ \begin{array}{c} \times \times \\ \times \text{Cl} \times \\ \times \times \end{array} \right]^- \\  (2,8,1) & (2,8,7) & (2,8) & (2,8,8)  \end{array}  $			
<p>The <b>charge</b> on the ions produced by metals in Groups 1 and 2 and by non-metals in Groups 6 and 7 relates to the <b>group number</b> of the element in the periodic table.</p>			
<p>Students should be able to:</p> <p>★ Draw <b>dot and cross diagrams</b> for ionic compounds formed by metals in Groups 1 and 2 with non-metals in Groups 6 and 7.</p>			
<p>★ Work out the <b>charge</b> on the ions of metals and non-metals from the group number of the element, limited to the metals in Groups 1 and 2, and non-metals in Groups 6 and 7.</p>			

Students should be able to: ★ <b>Explain the properties of diamond</b> in terms of its structure and bonding.			
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4.2.3.2 Graphite	😊	😐	😞
In <b>graphite</b> , each carbon atom forms <b>three covalent bonds</b> with three other carbon atoms, forming layers of <b>hexagonal rings</b> which have no covalent bonds between the <b>layers</b> .			
Graphite has a <b>high melting point</b> . The layers are free to <b>slide</b> over each other because there are no covalent bonds between the layers and so graphite is <b>soft</b> and <b>slippery</b> .			
In graphite, <b>one electron</b> from each carbon atom is <b>delocalised</b> . These delocalised electrons allow graphite to <b>conduct</b> thermal energy and electricity.			
Students should be able to: ★ <b>Explain the properties of graphite</b> in terms of its structure and bonding.			
★ Know that graphite is similar to metals in that it has <b>delocalised electrons</b> .			

4.2.1.5 Metallic bonding	😊	😐	😞
Metals consist of <b>giant structures</b> of atoms arranged in a <b>regular pattern</b> .			
The electrons in the outer shell of metal atoms are <b>delocalised</b> and so are <b>free to move through the whole structure</b> . The sharing of delocalised electrons gives rise to <b>strong metallic bonds</b> .			



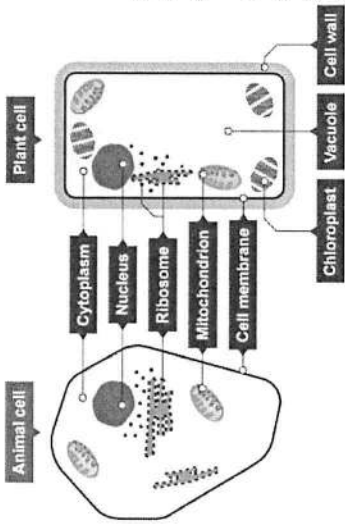
The <b>kinetic energy</b> of a <b>moving object</b> can be calculated using the equation:			
kinetic energy = 0.5 × mass × (speed) <sup>2</sup>   $E_k = \frac{1}{2} m v^2$			
<ul style="list-style-type: none"> <li>kinetic energy, <math>E_k</math>, in joules, <b>J</b></li> <li>mass, <math>m</math>, in kilograms, <b>kg</b></li> <li>speed, <math>v</math>, in metres per second, <b>m/s</b></li> </ul>			
The amount of <b>gravitational potential energy</b> gained by an <b>object raised</b> above ground level can be calculated using the equation:			
gravitational potential energy = mass × gravitational field strength ( $g$ ) × height   $E_p = m g h$			
<ul style="list-style-type: none"> <li>gravitational potential energy, <math>E_p</math>, in joules, <b>J</b></li> <li>mass, <math>m</math>, in kilograms, <b>kg</b></li> <li>gravitational field strength, <math>g</math>, in newtons per kilogram, <b>N/kg</b> (In any calculation the value of the gravitational field strength (<math>g</math>) will be given)</li> <li>height, <math>h</math>, in metres, <b>m</b></li> </ul>			

<b>4.1.1.3 Energy changes in systems</b>	☺	☹	☹
The amount of energy stored in or released from a system as its <b>temperature changes</b> can be calculated using the equation:			
change in thermal energy = mass × specific heat capacity × temperature change   $\Delta E = m c \Delta \theta$			
<ul style="list-style-type: none"> <li>change in thermal energy, <math>\Delta E</math>, in joules, <b>J</b></li> <li>mass, <math>m</math>, in kilograms, <b>kg</b></li> <li>specific heat capacity, <math>c</math>, in joules per kilogram per degree Celsius, <b>J/kg °C</b> □ temperature change, <math>\Delta \theta</math>, in degrees Celsius, <b>°C</b></li> </ul>			
The <b>specific heat capacity of a substance</b> is the amount of <b>energy</b> required to raise the <b>temperature of one kilogram</b> of the substance by <b>one degree Celsius</b> .			
Students should be expected to: ★ Apply the equation for <b>specific heat capacity</b> , which is given on the <b>Physics equation sheet</b> .			
<b>REQUIRED PRACTICAL: Specific Heat Capacity. AT 1 and 5.</b>			
<b>4.1.1.4 Power</b>	☺	☹	☹
Power is defined as the <b>rate</b> at which <b>energy is transferred</b> or the rate at which <b>work is done</b> .			
power = $\frac{\text{energy transferred}}{\text{time}}$   $P = \frac{E}{t}$			
power = $\frac{\text{work done}}{\text{time}}$   $P = \frac{W}{t}$			
<ul style="list-style-type: none"> <li>power, <math>P</math>, in watts, <b>W</b></li> <li>energy transferred, <math>E</math>, in joules, <b>J</b></li> <li>work done, <math>W</math>, in joules, <b>J</b></li> <li>time, <math>t</math>, in seconds, <b>s</b></li> </ul>			

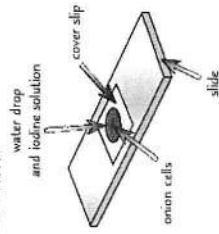
When the molecules <b>collide</b> with the wall of their container they exert a <b>force</b> on the wall. The total force exerted by all of the molecules inside the container on a <b>unit area</b> of the walls is the gas <b>pressure</b> .			
Changing the <b>temperature</b> of a gas, held at constant volume, changes the <b>pressure</b> exerted by the gas.			
<u>Students should be able to:</u> ★ <b>Explain</b> how the motion of the molecules in a gas is related to both its <b>temperature</b> and its <b>pressure</b> .			
★ <b>Explain</b> qualitatively the relationship between <b>temperature</b> of a gas and its <b>pressure</b> at constant <b>volume</b> .			

4.3.2 Internal energy and energy transfers			
<b>4.3.2.1 Internal energy</b>	😊	😐	😞
Energy is <b>stored</b> inside a system by the <b>particles</b> (atoms and molecules) that make up the system. This is called <b>internal energy</b> .			
<b>Internal energy</b> is the <b>total kinetic energy and potential energy</b> of all the particles (atoms and molecules) that make up a system.			
<b>Heating</b> changes the energy stored within the system by increasing the energy of the particles that make up the system. This either raises the <b>temperature</b> of the system or produces a <b>change of state</b>			
<b>4.3.2.2 Temperature changes in a system and specific heat capacity</b>	😊	😐	😞
If the temperature of the system increases: The increase in <b>temperature</b> depends on the <b>mass</b> of the substance heated, the type of <b>material</b> and the <b>energy input</b> to the system.			
<div style="border: 1px solid black; padding: 5px; display: inline-block;">           change in thermal energy = mass × specific heat capacity            × temperature change         </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;"> <math>\Delta E = m c \Delta \theta</math> </div>			
<ul style="list-style-type: none"> <li>• change in thermal energy, <math>\Delta E</math>, in joules, <b>J</b></li> <li>• mass, <math>m</math>, in kilograms, <b>kg</b></li> <li>• specific heat capacity, <math>c</math>, in joules per kilogram per degree Celsius, <b>J/kg °C</b> □ temperature change, <math>\Delta \theta</math>, in degrees Celsius, <b>°C</b></li> </ul>			
The <b>specific heat capacity</b> of a substance is the amount of energy required to raise the temperature of one kilogram of the substance by one degree Celsius.			
<u>Students should be able to:</u> ★ <b>Apply</b> the equation for <b>specific heat capacity</b> which is given on the <b>Physics equation sheet</b> .			
<b>4.3.2.3 Changes of heat and specific latent heat</b>	😊	😐	😞
If a change of state happens: The energy needed for a substance to <b>change state</b> is called <b>latent heat</b> . When a change of state occurs, the energy supplied changes the energy stored ( <b>internal energy</b> ) but <b>not the temperature</b> .			
The <b>specific latent heat</b> of a substance is the amount of energy required to change the state of one kilogram of the substance with no change in temperature.			

# Biology



1. Eukaryotic	A complex cell with a nucleus (e.g. animal or plant cells)
2. Prokaryotic	A smaller cell without a nucleus (e.g. bacterial cell)
3. Nucleus	Contains genetic material.
4. Cytoplasm	Where a cell's chemical reactions happen.
5. Cell membrane	Controls what goes into and out of a cell.
6. Ribosome	Part of a cell where proteins are made.
7. Mitochondria	Where aerobic respiration takes place.
8. Cell wall	Only found in plant cells. Made of cellulose and supports the cell.
9. Vacuole	Only found in plant cells. Contains cell sap.
10. Chloroplasts	Only found in plant cells. Where photosynthesis takes place.
11. Plasmid	Only found in bacterial cells. A small loop of DNA.

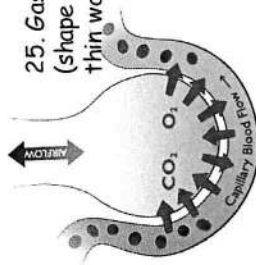


12. 
$$\text{magnification} = \frac{\text{measured size}}{\text{actual size}}$$

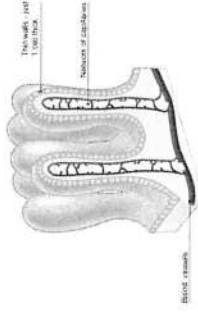
### Preparing a microscope slide

- Add a drop of water to the middle of a clean slide.
- Cut up an onion and take off one layer.
- Use tweezers to peel off some epidermal tissue (the clear 'skin') from the bottom of the layer.
- Using the tweezers, place the skin into the water on the slide.
- Add a drop of iodine solution. Iodine solution is a stain.
- Stains can make different parts of a cell easier to see.
- Place a cover slip on top. Try not to get any air bubbles under it.

22. Diffusion	Spreading out of particles from an area of higher concentration to an area of lower concentration.
23. Osmosis	The movement of water molecules across a partially permeable membrane from a less concentrated solution to a more concentrated solution.
24. Active Transport	Movement from a lower concentration to a higher concentration, against the concentration gradient.



25. Gas exchange in the lungs takes place in the alveoli (shape = large surface area. Good blood supply and thin walls).



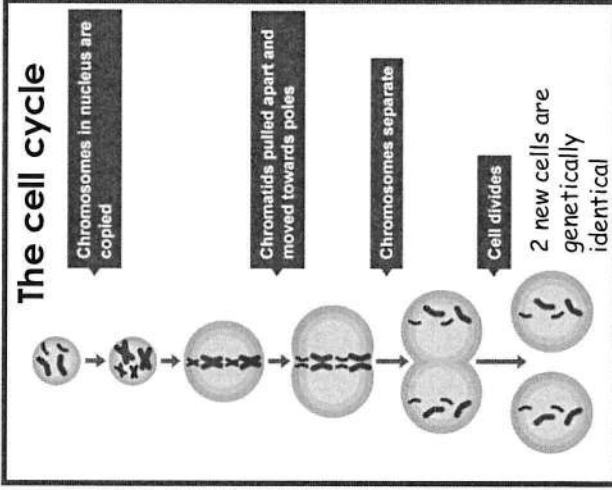
26. The small intestine is covered in tiny villi which absorb food (shape = large surface area. Good blood supply)



27. Fish have gills to absorb oxygen from water (large surface area)

- Adult stem cells can only produce certain types of cell - found in bone marrow
- Embryonic stem cells can produce all types of cells - controversial
- Plant stem cells found in meristems

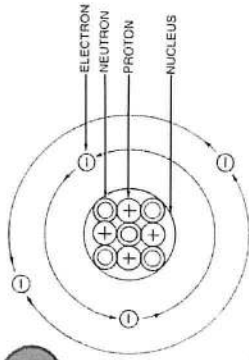
16. Sperm cells		Take male DNA to the egg <ul style="list-style-type: none"> <li>Tail to help it swim</li> <li>Lots of mitochondria for energy</li> </ul>
17. Nerv e cells		Carry electrical signals around the body <ul style="list-style-type: none"> <li>Long to cover long distances</li> <li>Branches to connect to other cells</li> </ul>
18. Muscle Cells		Muscle cells contract <ul style="list-style-type: none"> <li>Long so have space to contract</li> <li>Lots of mitochondria for energy</li> </ul>
19. Root hair cells		Root hair cells absorb water and minerals <ul style="list-style-type: none"> <li>Long hairs</li> <li>Big surface area for absorption</li> </ul>
20. Phloem Cells		Phloem cells transport sugars (plants) <ul style="list-style-type: none"> <li>Long tube joined end to end</li> </ul>
21. Xylem cells		Xylem cells transport water (plants) <ul style="list-style-type: none"> <li>Long tubes joined end to end</li> <li>Hollow so water can flow through</li> </ul>



### Investigating osmosis in potatoes

- Cut potatoes into cylinders with the same length and width. Measure their mass.
- Put 1 in pure water and the other concentrated sugar solution and leave them for 30 mins.
- Take out the potato cylinders and dry them carefully with a paper towel.
- Measure the mass again.
- If the mass has increased, water has moved in because of osmosis. If the mass has decreased, water has moved out because of osmosis.

# Chemistry



**B** Nuclear symbol for sodium.

Mass number → **23**  
Atomic number → **11**

Element symbol (see next page for more on symbols).

**Mass no. = protons and neutrons**  
**Atomic no. = Protons**  
**No. of neutrons = No. of electrons**

<b>1. Atom</b>	The smallest possible piece of an element. Has a radius of 0.1nm (or $1 \times 10^{-10}m$ ).
<b>2. Element</b>	A substance in which all the atoms have the same atomic number.
<b>3. Isotope</b>	2 isotopes of the same element are atoms with the same number of protons but different numbers of neutrons.
<b>4. Molecule</b>	Two or more atoms bonded together
<b>5. Compound</b>	Two or more different atoms bonded together
<b>6. Mixture</b>	At least two different elements or compounds together. Can be separated easily.

Energy Shell	Max no. of electrons
First	2
Second	8
Third	8

Particle	Relative Mass	Charge
Proton	1	+1
Neutron	1	0
Electron	Very small	-1

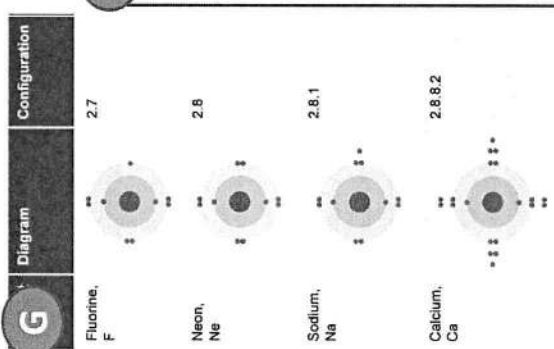
(Electron mass is often taken as zero.)

**E** Isotopes are the same except for extra neutrons

**Carbon-12**  
12  
6 C  
6 Protons  
6 Electrons  
6 Neutrons

**Carbon-13**  
13  
6 C  
6 Protons  
6 Electrons  
7 Neutrons

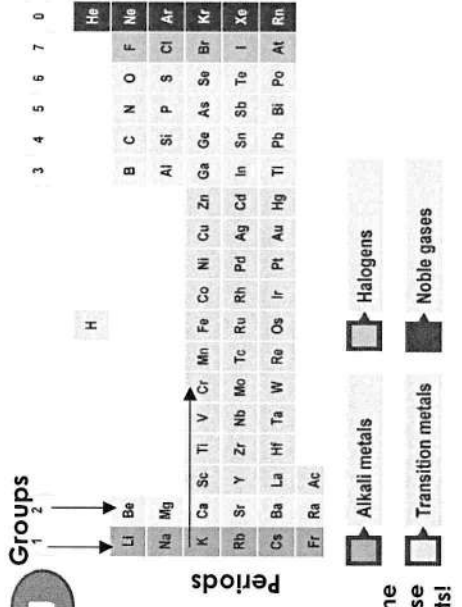
**relative atomic mass (A<sub>r</sub>) = sum of (isotope abundance x isotope mass number) / sum of abundances of all the isotopes**



- H**
- Carbon dioxide — CO<sub>2</sub>
  - Ammonia — NH<sub>3</sub>
  - Water — H<sub>2</sub>O
  - Sodium chloride — NaCl
  - Carbon monoxide — CO
  - Hydrochloric acid — HCl

**I** In the Early 1800s Elements were arranged by atomic mass

**J** In 1869 Dmitri Mendeleev left gaps and predicted new elements



- K**
- Group 1 – ALKALI METALS**
    - One electron in outer shell
    - Form ionic compounds with non-metals
    - React with water to produce hydrogen gas
    - React with chlorine to produce a salt
    - React with oxygen to form a metal oxide
  - Group 7 – Halogens**
    - Seven electrons in outer shell
    - Form molecular compounds
    - Form ionic bonds with metals
    - More reactive halogens will displace less reactive ones
    - Fluorine – very reactive, gas
    - Chlorine – fairly reactive, gas
    - Bromine – dense, liquid
    - Iodine – dark grey crystalline solid
  - Group 0 – Noble Gases**
    - Eight electrons in outer shell
    - Not very reactive because of their stable outer shell
    - Monatomic gases – single atoms not bonded to each other
    - All colourless gases at room temperature
    - Non-flammable

- 7) Calcium chloride — CaCl<sub>2</sub>
- 8) Sodium carbonate — Na<sub>2</sub>CO<sub>3</sub>
- 9) Sulfuric acid — H<sub>2</sub>SO<sub>4</sub>
- L** 1. Chromatography  
Used to separate a mixture of dyes in ink.
- 2. Filtration  
Used to separate insoluble solids from liquids (e.g. sand from water).
- 3. Evaporation  
Used to separate a soluble salt from solution. The solution is heated strongly in an evaporating basin until dry crystals are left.
- 4. Crystallisation  
Used to separate a soluble salt from solution. The solution is heated gently in an evaporating basin until crystals form; the remaining liquid is filtered out.
- 5. Simple distillation  
Is used to separate a liquid from a solution – e.g. water from ink. A condenser is used to cool hot gas until it forms a liquid.
- 6. Fractional distillation  
Used to separate a mixture of liquids with different boiling points.

- Down the group
- Higher boiling point
- Higher relative atomic masses

# Physics

Energy store	Objects with energy in this store
Kinetic	Anything moving has energy in its kinetic energy store.
Thermal	Any object. The hotter it is, the more energy it has in this store. You may also see thermal energy stores called internal energy stores.
Chemical	Anything that can release energy by a chemical reaction, e.g. food, fuels.
Gravitational Potential	Anything that has mass and is inside a gravitational field.
Elastic Potential	Anything that is stretched (or compressed) e.g. springs.
Electrostatic	Anything with electric charge that is interacting with another electric charge — e.g. two charges that attract or repel each other.
Magnetic	Anything magnetic that is interacting with another magnet — e.g. two magnets that attract or repel each other.
Nuclear	Atomic nuclei have energy in this store that can be released in nuclear reactions.

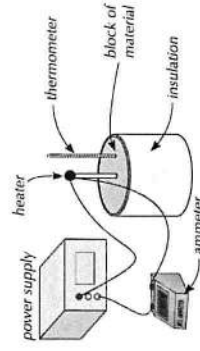
Specific heat capacity is the amount of energy needed to raise the temperature of 1 kg of a substance by 1 °C.

$$\Delta E = \text{change in thermal energy (J)}$$

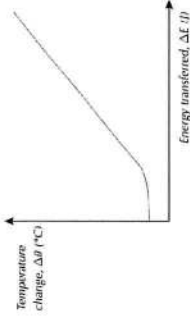
$$\Delta E = mc\Delta\theta$$

$m = \text{mass (kg)}$   
 $c = \text{specific heat capacity (J/kg}^\circ\text{C)}$   
 $\Delta\theta = \text{temperature change (}^\circ\text{C)}$

## Core practical: Investigating Specific heat capacity



Use the current and voltage reading to calculate **power**. Use this to calculate how much energy has been transferred by the heater. Assuming no energy has been dissipated you can plot a graph:



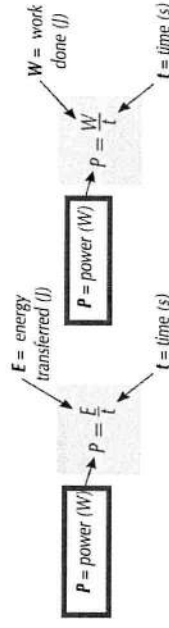
You can find the specific heat capacity of the block using the gradient of the linear part of your graph. The gradient is  $\Delta\theta \div \Delta E$ , so since  $\Delta E = mc\Delta\theta$ , the gradient is  $1 \div mc$ . So the specific heat capacity of the material of the block is:  $1 \div (\text{gradient} \times \text{the mass of the block})$ .

## Energy transfer for falling objects

When something falls, energy from its gravitational potential energy store is transferred to its kinetic energy store. The further it falls, the faster it goes.

For a falling object when there's no air resistance, you can use the principle of conservation of energy to get:

Energy lost from the g.p.e. store = Energy gained in the kinetic energy store



**Work done** is energy transferred from one store to another.

The principle of **conservation of energy** states that energy can be transferred usefully, stored, dissipated but never created or destroyed. **Power** is the rate of energy transferred.

$$\text{efficiency} = \frac{\text{useful power output}}{\text{total power input}}$$

$$E_k = \text{kinetic energy (J)}$$

$$E_k = \frac{1}{2}mv^2$$

$v = \text{speed (m/s)}$   
 $m = \text{mass (kg)}$

$$E_p = \text{gravitational potential energy (J)}$$

$$E_p = mgh$$

$g = \text{gravitational field strength (N/kg)}$   
 $h = \text{height (m)}$   
 $m = \text{mass (kg)}$





# Year 9 Geography

## Independent Learning Revision

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	Complete task 1-10 on Plate tectonics and Development
2	22/04/24	29/04/24	Make a mind map and revision cards on the four types of plate boundary - Explain what happens at each using key words
3	29/04/24	06/05/24	Make a mind map or revision cards on development indicators
4	06/05/24	13/05/24	Make a mind map or revision cards on the Asia unit
5	13/05/24	20/05/24	Map skills – Use the knowledge organisers to revise four and six figure grid references.
6	20/05/24	03/06/24	Map skills – Use the knowledge organisers to revise how height and direction can be shown on a map.
7	03/06/24	10/06/24	Make a glossary of all the key terms in the Plate tectonics unit

**Please also remember to check Seneca Learning for revision tasks to complete for the examinations**

ASPIRING TO EXCELLENCE TOGETHER



**YEAR 9 Geography Assessment Revision PLC**  
 – Unit 2 – Plate Tectonics and Earthquakes



Why do the causes, impacts and management of earthquakes vary with location?			
What you need to know	😊	😐	😞
To be able to define what a <b>natural hazard</b> is.			
To be able to categorise different natural hazards into <b>atmospheric</b> and <b>geophysical</b>			
To be able to explain why some natural hazards become natural disasters			
Be able to identify name of the different layers of the Earth			
Be able to explain how <b>temperature, density, composition</b> and <b>physical state</b> is different for each layer of the Earth			
To be able to explain what <b>continental drift</b> is and how it occurs			
To be able to describe the <b>distribution (pattern)</b> of earthquakes on a global scale			
To be able to explain direction of plate movement and type of hazards that occur at a <b>conservative plate boundary</b>			
To be able to give a named example of a <b>conservative plate boundary</b>			
To be able to explain the direction of plate movement and type of hazards that occur at a <b>destructive (convergent) plate boundary</b>			
To be able to give a named example of a <b>destructive plate boundary</b>			
The direction of plate movement and type of hazards that occur at a <b>constructive (divergent) plate boundary</b>			
To be able to give a named example of a <b>constructive plate boundary</b>			
To be able to describe the hazards are associated with earthquakes			
To be able to explain why some earthquakes are more damaging than others e.g. <b>depth of focus, magnitude, location of epicentre</b>			
To be able to explain how <b>tsunamis</b> are formed and the hazards they are associated with			
Be able to give a named example of an earthquake in a <b>developing country (Haiti)</b> , what it's primary and secondary effects were and how it impacted people and property			
Be able to give a named example of an earthquake in a <b>developed country (Japan or New Zealand)</b> , what it's primary and secondary effects were and how it impacted people and property			
Be able to give a named example of a <b>developing country</b> and how it manages earthquakes			
Be able to give a named example of a <b>developed country</b> and how it manages earthquakes			
Be able to explain the difference between <b>short term relief</b> (e.g. shelter and supplies) and <b>long-term planning</b> (e.g. training and funded emergency services)			
Be able to explain how we can prepare for an earthquake			
Be able to explain how we can make buildings earthquake proof			
Be able to explain how we can predict earthquakes			
Map Skills (Year 7)			
Can explain the terms longitude and latitude and use these to locate places			

# Plate Tectonics/Development/Asia- Revision

In this lesson we will revise for the Year 9 End of Year Assessment

- 40 marks
- 45 minutes

1. Name the four layers of the EARTH'S crust
2. Explain what happens at a destructive plate boundary and the events that occur there
3. Explain what happens at a constructive plate boundary and the events that occur there.
4. Explain what happens at a conservative plate boundary
5. What is the difference between the focus and the epicentre of an earthquake?
6. Suggest three ways people can prepare for earthquakes and reduce the risks
7. Name a social indicator of development
8. Explain how providing clean water can improve development.
9. Explain why some countries are less developed than others.
10. Explain why the monsoon is so important to the population of countries such as India



# Year 9

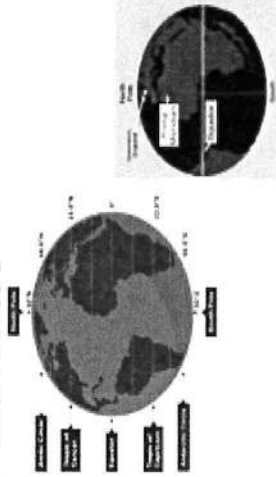
# Knowledge Organiser Focus:

# Map skills and the UK

## Lines of latitude

There are 7 major lines of latitude:

- ✓ North Pole - 90°N
- ✓ Arctic Circle - 66.5° N
- ✓ Tropic of Cancer - 23.5° N
- ✓ Equator - 0°
- ✓ Tropic of Capricorn - 23.5° S
- ✓ Antarctic Circle - 66.5° S
- ✓ South Pole - 90°S

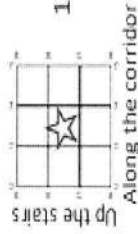


## Grid references

Maps are divided into grid squares. These help to locate places/objects on a map easier. Each grid square is given a number. In order to find a grid reference you must go "Along the corridor and then Up the Stairs."

To find a 4 figure grid reference you must:

- ✓ Go along the corridor and find the grid square.
- ✓ Choose the bottom left number on that square.
- ✓ You then go up the stairs, find the grid square and choose the bottom left number on that square.
- ✓ The 4 figure grid reference for the star is 1337



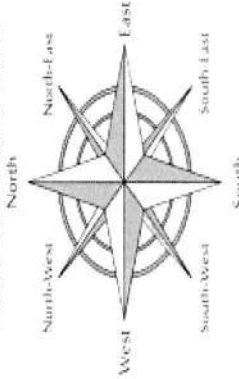
6 Figure grid references give you an exact location of a place. To find a 6 figure grid reference you must:

- ✓ Go along the corridor and find the grid square.
- ✓ Choose the bottom left number on that square.
- ✓ Imagine the square is divided into tenths and decide how many 10th's across the object it. This will be 3rd number.
- ✓ You then go up the stairs, find the grid square and choose the bottom left number on that square.
- ✓ Imagine the square is divided into tenths and decide how many 10th's across the object it. This will be 6th number.



## Compass directions

Never Eat Shredded Wheat



The 4 main points of a compass are:

- ✓ North
- ✓ South
- ✓ East
- ✓ West.

To get the 8 point compass, always use the North or South point first. E.g. North West – South West

## Measuring distances- scale

Scale can be shown on a map in different ways

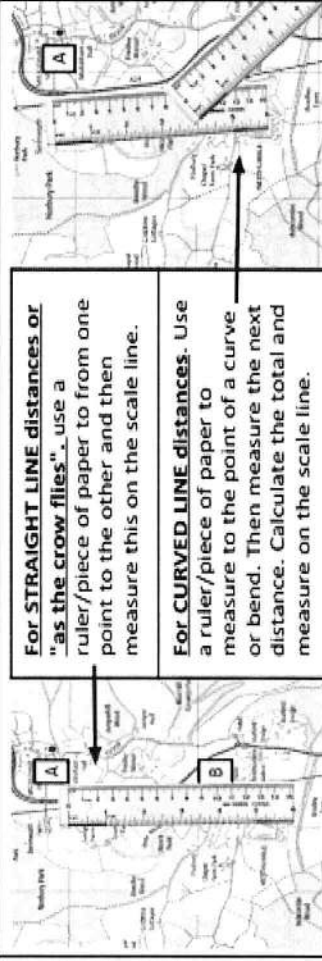
<b>Scale Line</b>	
<b>Ratio</b>	<b>1:25,000</b>

A scale line on a map shows that 1cm on a map is the same as 1km on the ground. Sometimes it can be shown in miles also.

Ratio can be shown in different ways on a map, you need to check this when measuring distance. If a scale is 2cm to 1 km, you will need to calculate the distance.

**For STRAIGHT LINE distances or "as the crow flies"**, use a ruler/piece of paper to from one point to the other and then measure this on the scale line.

**For CURVED LINE distances.** Use a ruler/piece of paper to measure to the point of a curve or bend. Then measure the next distance. Calculate the total and measure on the scale line.



## Relief and height of the land

You can tell the height of land on a map in three different ways:

<b>Contour Lines</b>		Contour lines are line on a map that join places of equal height. They are usually shown as fine brown lines on a map
<b>Layer colouring</b>		Layer colouring uses colours to represent areas of higher land. Areas of mountainous land are usually shown as brown, like in this map of the UK
<b>Spot heights</b>		Spot heights are usually shown as a dot or triangle with a number on a map. They give the exact height of a point on the map.

Contour lines give you an idea of the shape of the land. Most have their height marked on them in meters.

- ✓ If contour lines are close together, the land is steep.
- ✓ If contour lines are far apart, there is a gentle slope.

# YEAR 9 Geography – End of Year Assessment -Revision List



<b>What is development?</b>			
	😊	😐	☹️
To be able to define development			
To be able to explain the difference between quality of life and standard of living			
To be able to categorise countries – Advanced Countries (ACs), Emerging Developing Countries (EDCs) and Low Income Developing Countries (LIDCs)			
To be able to identify different ways of measuring development using a range of development indicators (economic, social and environmental)			
To be able to explain why the Human Development Index is a better measure of development than Gross National Income			
To be able to explain how population and development are linked			
To be able to explain how development changes over time			
To be able to explain how health and development are linked			
To understand the term ‘development gap’			
To be able to explain the human and physical causes of uneven development			
To be able to explain how gender equality can increase development			
To evaluate a range of strategies aimed at reducing the development gap e.g. tourism, education, improved health care and inward investment (Transnational Corporations -TNCs)			

**YEAR 9** – Unit 3 Diverse and Dynamic: how is Asia being transformed?



<b>Diverse and Dynamic: How is Asia being transformed?</b>			
<b>What you need to know</b>	😊	😐	😞
Define the term diverse			
Use evidence to explain why Asia is a diverse continent			
Locate some of the key physical features of Asia			
Explain the diversity of the weather in Asia			
Explain the formation of the monsoon climate in India			
Explain why the monsoon climate is so important to the people of India			
Explain the impact of flooding in Southern Asia			
Explain the causes and responses to flooding in Bangladesh			
Describe and explain the distribution of biomes in Asia			
Describe and explain the adaptations of vegetation, animals and people to mountain biomes			
Explain how people can change a biome – the impacts of deforestation in Nepal			
To describe the population distribution of Asia			
To describe and explain the reasons for population changes across Asia			
To compare the population structures of two countries in Asia - Afghanistan and Japan			
To explain why people move from rural areas to Bangalore			
To describe and explain the opportunities and challenges of life in Bangalore			
<b>Decision Making task</b> – How can life be improved for people in Karnataka?			
To identify the reasons for China’s economic growth			
To evaluate the purpose of China’s new Belt and Road project			
To understand the growing world importance of Asia			
To explain the world shift in world trade			



# Year 9 History

## Independent Learning

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	Use your PLCs and Knowledge Organisers to create a list of 5-10 key terms for each topic and their definitions
2	22/04/24	29/04/24	Use your PLCs and Knowledge Organisers to create a list of 5-10 key dates (with 2-3 facts) in chronological order
3	29/04/24	06/05/24	<b>Focus: WWII</b> Create a mind map OR a flashcard on each of the battles studied. Include specific examples such as; why the battle took place, who fought, key events, outcome. Most importantly explain why this was a turning point in WWII
4	06/05/24	13/05/24	<b>Focus on Holocaust</b> Create a mind map OR a flashcard on the Holocaust. Create subheadings on the following topics – aim to include 2-3 facts for each. Causes (long term and short term), Nazi ideology, children and indoctrination, examples of dehumanisation, the final solution, life after the Holocaust, the role of perpetrators/bystanders/resisters/collaborators
5	13/05/24	20/05/24	<b>Focus on the Blitz</b> Create a mind map OR a flashcard on the following: Evaluation, air raid shelters, rationing, censorship and propaganda. Aim for 3-5 facts for each theme. Stretch – recap the structure we use to analyse sources

ASPIRING TO EXCELLENCE TOGETHER



### Year 9 Knowledge Organiser Spring 1: Holocaust

Key Statistics and dates		
1	How many Jews died in the Holocaust?	6 million
2	How many Jewish children died in the Holocaust?	1 ½ million
3	What period is typically known as the Holocaust	1941-45
4	When did Hitler become Chancellor (Prime Minister) of Germany?	Jan 1933
5	What was the total number of concentration camps, death camps and ghettos controlled by the Nazis across Europe?	40,000
Origins and Experience of the Holocaust		
6	Which new subject was created in German schools to teach students about social Darwinism and why some races were superior to others?	Race Studies
7	Which law passed in 1933 gave Hitler the power to make laws without approval of the parliament?	Enabling Act
8	What was the name of the first concentration camp opened in March 1933?	Dachau, (Germany)
9	Which set of laws created in 1935 denied Jews their citizenship rights and made it illegal for them to marry Germans?	Nuremberg Laws
10	In 1938-some 90 Jews are killed, and another 30,000 were arrested and sent to concentration camps. Two hundred and sixty-seven synagogues were destroyed. What was this night known as?	Kristallnacht
11	What was the largest death camp and where was it?	Auschwitz-Berkanau, Poland
12	How much money was generated for the Nazi government by slave labour at Auschwitz	About 60 million Reichmarks - equivalent to £125m today
13	Which country saw the greatest extermination of the Jews?	Poland (91%)
14	What was the name of the gas used in the gas chambers?	Zyklon B
15	Which country managed to 'save' the greatest percentage of Jews from Nazi extermination? (How)?	Denmark- 95% of Jews saved- (shipped across to Sweden)
Aftermath and consequences of the Holocaust		
16	When did Germany surrender from the Second World War?	May 8 <sup>th</sup> 1945
17	How many Nazi war criminals were imprisoned for their role in the Holocaust between 1945 and 1985?	10,000
18	When did Hitler kill himself in his Berlin bunker?	April 30 <sup>th</sup> 1945
19	How many people were thought to be perpetrators of the Holocaust?	200,000
20	In a 2004 survey, what number of survivors of Nazi death camps or ghettos were thought to be living in Britain?	500



## YEAR 9: KNOWLEDGE ORGANISER THE BLITZ: WITH ANSWERS

Key Dates and Information		
1	When did the Blitz take place?	1940-45
2	When was evacuation introduced?	1 <sup>st</sup> September 1939
3	When were the first Blitz raids of London?	7 <sup>th</sup> September 1940
4	When were the last Blitz raids on London?	27 <sup>th</sup> March 1945
5	Which famous London sites were attacked?	St Pauls Church, St James' Palace, etc.
Key Statistics and Key Terms		
6	What is meant by the term 'raid'?	A sudden surprise attack on the enemy
7	What is meant by 'The Lull'?	When the air raids stop/ ease temporarily
8	What is meant by the term 'propaganda'?	Spreading of a particular idea or view through posters, speeches etc.
9	What is the difference between propaganda and censorship?	Censorship is withholding information for a specific reason, propaganda is spreading information with a particular purpose
10	How many people were evacuated during the War?	1.5 million
11	How many people died in the first Blitz attacks in London?	420 people
12	How many people died as a result of the 'Baby Blitz'?	3,793 people
13	What was meant by the phrase 'Blitz Spirit'?	The stoic determination not to cower to the Germans
Military information		
14	What was the name of the 'flying bomb' that could be launched from abroad and did not require a pilot?	V1
15	What was the name of the new 'rocket bomb' that could be heard from 10 miles away?	V2
16	What were the names of the two household shelters available for civilians during the war?	The Anderson and Morrison shelters
Civilian Life		
17	What happened to the Royal Family during the Blitz?	The princesses were evacuated, the King and Queen remained in Buckingham Palace
18	What entertainment proved popular during the Blitz?	Matinee films, dance halls, restaurants
19	Which local areas to Forest Hill were particular affected?	The train station
20	Roughly how many civilians died in London as a result of the Blitz?	40,000

## Year 9 Knowledge Organiser Spring 2: WW2

Key Facts, Statistics and Dates		
1	When did Britain declare war on Germany?	September 3rd, 1939
2	When was the armistice signed ending the Second World War?	14 August 1945 (although formal surrender of Japan 2 <sup>nd</sup> September 1945)
3	Which 3 major nations formed the Allied powers(+ their colonies)?	Britain, USSR, USA (+ their colonies)
4	Which three major nations formed the Axis powers?	Italy, Germany, Japan
5	Who were the three leaders of the Allies?	Winston Churchill (GB), Franklin D Roosevelt (USA), Josef Stalin (USSR)
6	Who were the three leaders of the Axis?	Adolf Hitler (Germany), Benito Mussolini (Italy), Emperor Hirohito (Japan)
7	How many people from the Commonwealth were enlisted in the war effort (men and women from across the world)	11.5 million
8	Roughly how many British soldiers were enlisted to support the War?	3.5 million
9	Roughly how many countries were involved in WW2?	30
10	Roughly how many people died in WW2?	60 million
Experience of WW2		
11	When was rationing introduced in Britain? (Why?)	Jan 1940 (German U-boats were affecting imports)
12	How many children were evacuated from cities to the countryside in WW2? (Where did they go?)	3 million (mainly Wales, Cornwall, Devon)
13	What was the worst point in the Blitz over London (1940-1)	London was bombed for 57 days in a row
14	Which two fighter planes were used to great effect in the Battle of Britain?	Hawker Hurricane and Spitfire
15	What was the bloodiest battle of WW2 and warfare history (2 million killed or captured)?	Stalingrad
16	What were the names of the 5 beaches that would be part of the Normandy Landings (D-Day)?	Sword, Omaha, Gold, Juno, Utah
Aftermath and consequences of WW2		
17	How was Germany controlled after WW2?	Germany was split into 4 zones to be controlled by France, Britain, USA and USSR
18	What happened to Japan at the end of WW2?	Two atomic bombs dropped on Hiroshima and Nagasaki, then controlled until 1952 by the USA
19	Which nation suffered the greatest casualties from WW2?	USSR- 20 million military deaths (and 80% of male population in St Petersburg)
20	When did the Cold War begin? Who was at 'war'?	Aug 1945- USSR versus USA



## YEAR 9 – End of Year Checklist

Holocaust, WWII and the Blitz			
<b>Year 8 Retrieval</b>	☺	☹	☹
I can explain the impact of WWII on immigration to Britain			
<b>Key Vocabulary and Terminology</b> – <i>Can you define the words? Can you use them in a sentence?</i>	☺	☹	☹
I can define all of the key vocabulary and terminology from the knowledge organisers from the Holocaust, WWII and the Blitz			
I can use all of the key vocabulary and terminology in sentences			
I can explain how all of the key vocabulary and terminology relates to the period of history I have been studying in Year 9			
<b>Key dates</b> – <i>Can you put these in chronological order?</i>	☺	☹	☹
The key events of the Holocaust			
The key events of WWII			
The key events from the Blitz			
<b>Key knowledge and skills</b> – <i>Can you do these in your written work?</i>			
<b>Holocaust</b>	☺	☹	☹
I can explain when and why the Holocaust took place			
I can explain the impact of the Holocaust and describe how it was experienced from a range of perspectives			
<b>Historical skill:</b> I can make <b>inferences</b> from sources about the experiences of the Holocaust and explain how and why they are useful			
<b>WWII</b>	☺	☹	☹
I can explain the key battles of WWII			
<b>Historical skill:</b> I can explain why each chosen battle was significant			
<b>Historical skill:</b> I can compare these battles and come to a judgement on which was the most significant and why			
<b>The Blitz</b>	☺	☹	☹
I can explain the main events/dates/ causes of the Blitz			
I can describe the impact of the Blitz on ordinary life in London			
<b>Historical skill:</b> I can make <b>inferences</b> from sources about the experiences of the Blitz and why they are useful			
<b>Historical skill:</b> I can make <b>inferences</b> from sources about the use of censorship and propaganda during the Blitz and why they are useful			





# Year 9 SPANISH

## Independent Learning Revision

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	<ol style="list-style-type: none"> <li>1. Read through the vocabulary list for module 1</li> <li>2. Highlight unknown vocabulary.</li> <li>3. Create a mind map with important vocabulary (adjectives/verbs/nouns)</li> </ol>
2	22/04/24	29/04/24	<ol style="list-style-type: none"> <li>1. Read through the vocabulary list for module 2</li> <li>2. Highlight unknown vocabulary.</li> <li>3. Create a mind map with important vocabulary (adjectives/verbs/nouns)</li> </ol>
3	29/04/24	06/05/24	<ol style="list-style-type: none"> <li>1. Read through the vocabulary list for module 3</li> <li>2. Highlight unknown vocabulary.</li> <li>3. Create a mind map with important vocabulary (adjectives/verbs/nouns)</li> </ol>
4	06/05/24	13/05/24	<ol style="list-style-type: none"> <li>1. Read through the vocabulary list for module 4</li> <li>2. Highlight unknown vocabulary.</li> <li>3. Create a mind map with important vocabulary (adjectives/verbs/nouns)</li> </ol>
5	13/05/24	20/05/24	<ol style="list-style-type: none"> <li>1. Read through the vocabulary list for module 5</li> <li>2. Highlight unknown vocabulary.</li> <li>3. Create a mind map with important vocabulary (adjectives/verbs/nouns)</li> </ol>
6	20/05/24	03/06/24	Create a set of flashcards with connectives/adjectives for each module.
7	03/06/24	10/06/24	Create a mind map with photo description vocabulary.

ASPIRING TO EXCELLENCE TOGETHER



## Year 9 Spanish – PLC for End of Year exam (EoY)

### READING & WRITING

CONTENT		REVISED/ PRACTISED <i>once?</i>	REVISED/ PRACTISED <i>twice?</i>
<b>TOPIC</b> (vocab and phrases)  <i>Viva 3 (rojo + verde), Modulo 1-5</i>	My Hobbies ( <i>Autumn 1</i> )		
	The World of Work ( <i>Autumn 2</i> )		
	Healthy Living ( <i>Spring 1</i> )		
	Youth in Action ( <i>Spring 2</i> )		
<b>KEY GRAMMAR</b>	Mixed tenses (Past - Preterite & Imperfect, Future, Conditional) as well as Present		
	Reflexive verbs (“se debe”, “me duele”)		
	+ Using “tener que”, “poder” and “se deberia”		
	Comparative (más/menos) and superlative (el más...) descriptions		
<b>EXAM SKILLS</b>	Reading activities (varied)		
	Answering questions (in Spanish)		
	Translation		
	Photo description		
	Essay question (16 marks/4 bullet points)		

#### **How to revise:**

- ✓ write practice essays about each topic that use opinions and mixed vocab
- ✓ look through your book and make mindmaps/lists/flashcards of key vocab, phrases and grammar rules
- ✓ online sites/apps (e.g. Quizlet.com, Memrise / Duolingo/ BBC Bitesize Spanish)
- ✓ frequently test yourself on topic vocab using LOOK-SAY-COVER-WRITE-CHECK
- ✓ ask someone at home to test you on vocab and phrases

## Opiniones

¿Qué cosas te gustan?

¿Qué cosas te encantan / te  
chiflan / te flipan / te molan?

Me gusta(n)...

Me encanta(n) / Me chifla(n) /

Me flipa(n) / Me mola(n)...

No me gusta(n) (nada)...

el baile / el cine

el deporte / el dibujo

el racismo / el teatro

la moda / la música

la naturaleza / la pesca

la violencia

los cómics

los insectos

los lunes

las artes marciales

las injusticias

las tareas domésticas

En mi tiempo libre

Hago judo / natación.

Voy al parque / polideportivo.

Voy de pesca.

Soy miembro de un club / un equipo.

Expresiones de frecuencia

a veces

dos veces a la semana

muy a menudo

casi todos los días

todo el tiempo

siempre

## Opinions

*What things do you like?*

*What things do you love?*

*I like...*

*I love...*

*I don't like... (at all).*

*dance / cinema*

*sport / drawing*

*racism / theatre*

*fashion / music*

*nature / fishing*

*violence*

*comics*

*insects*

*Mondays*

*martial arts*

*injustice*

*household chores*

*In my free time*

*I do judo / go swimming.*

*I go to the park / sports centre.*

*I go fishing.*

*I am a member of a club / a team.*

*Expressions of frequency*

*sometimes*

*twice a week*

*very often*

*almost every day*

*all the time*

*Always*

¿Cómo organizas tu semana?

Bailo Zumba®.

Cocino para mi familia.

Escribo canciones.

Juego en mi consola.

Leo revistas / libros.

Monto en bici.

Navego por Internet.

Preparo la cena.

Saco fotos.

Toco el teclado.

Veo un partido de fútbol.

*How do you organise your week?*

*I dance Zumba.*

*I cook for my family.*

*I write songs.*

*I play on my games console.*

*I read magazines / books.*

*I ride a bike.*

*I surf the internet.*

*I prepare dinner.*

*I take photos.*

*I play the keyboard.*

*I watch a football game.*

¿Cuándo?

después del insti(tuto)

este fin de semana

los fines de semana

los lunes / martes

los jueves por la tarde

mañana por la tarde

*When?*

*after school*

*this weekend*

*at weekends*

*on Mondays / Tuesdays*

*on Thursday afternoons*

*tomorrow afternoon*

Cartelera de cine

Voy a ver...

una comedia

una película de acción

una película de animación

una película de aventuras

una película de ciencia ficción

una película de fantasía

una película de superhéroes

una película de terror

¿Vas a venir?

¿Vamos a ver ?

*What's on at the cinema*

*I am going to see...*

*a comedy*

*an action film*

*an animated film*

*an adventure film*

*a science-fiction film*

*a fantasy film*

*a superhero film*

*a horror film*

*Are you going to come?*

*Are we going to see...? / Shall we see...?*

Reacciones

Claro que sí.

De acuerdo.

(No) voy a ir.

No, gracias.

¿Estás loco/a?

¡Ni en sueños!

¡Qué rollo!

Reactions

*Of course.*

*All right.*

*I am (not) going to go.*

*No thanks.*

*Are you crazy?*

*Not a chance!*

*How boring!*

¿Qué tipo de películas te gustan?

Me encantan las comedias.

No me gustan las películas de terror.

Mi película favorita es...

¿Qué tipo de película es?

Es una comedia.

En mi opinión...

Creo / Pienso que...

*What type of films do you like?*

*I love comedies.*

*I don't like horror films.*

*My favourite film is...*

*What type of film is it?*

*It is a comedy.*

*In my opinion...*

*I think (that)...*

¿Cómo fue tu cumpleaños?

Celebré mi cumpleaños con mi  
familia / mis amigos.

¿Qué hiciste?

Fui / Fuimos al parque de atracciones.

Invité a mis amigos a pasar la  
noche en mi casa.

Bebí / Bebimos refrescos.

Comí / Comimos tarta de cumpleaños.

Recibí muchos regalos.

Fue alucinante / increíble.

*How was your birthday?*

*I celebrated my birthday with my  
family / friends.*

*What did you do?*

*I / We went to the theme park.*

*I invited my friends to sleep over at my house.*

*I / We drank soft drinks.*

*I / We ate birthday cake.*

*I received lots of presents.*

*It was amazing / incredible.*

Palabras muy frecuentes

así que

casi

primero

*High-frequency words*

*so, therefore*

*nearly, almost*

*first*

<b>luego</b>	<b><i>then</i></b>
<b>después</b>	<b><i>afterwards</i></b>
<b>más tarde</b>	<b><i>later</i></b>
<b>o</b>	<b><i>or</i></b>
<b>por supuesto</b>	<b><i>of course</i></b>
<b>quizás</b>	<b><i>perhaps, maybe</i></b>
<b>también</b>	<b><i>also, too</i></b>
<b>además</b>	<b><i>in addition , furthermore</i></b>

## **Module 2**

<b>Los trabajos en el hotel</b>	<b><i>Hotel jobs</i></b>
<b>Soy...</b>	<b><i>I am...</i></b>
<b>camarero/a</b>	<b><i>a waiter</i></b>
<b>cocinero/a</b>	<b><i>a cook</i></b>
<b>dependiente/a</b>	<b><i>a shop assistant</i></b>
<b>esteticista</b>	<b><i>a beautician</i></b>
<b>jardinero/a</b>	<b><i>a gardener</i></b>
<b>limpiador(a)</b>	<b><i>a cleaner</i></b>
<b>peluquero/a</b>	<b><i>a hairdresser</i></b>
<b>repcionista</b>	<b><i>a receptionist</i></b>
<b>¿En qué consiste tu trabajo?</b>	<b><i>What does your job involve?</i></b>
<b>Tengo que...</b>	<b><i>I have to...</i></b>
<b>contestar al teléfono y ayudar a los clientes</b>	<b><i>answer the phone and help customers</i></b>
<b>cortar el pelo a los clientes</b>	<b><i>cut customers' hair</i></b>
<b>cuidar las plantas</b>	<b><i>look after the plants</i></b>
<b>hacer manicuras</b>	<b><i>do manicures</i></b>
<b>limpiar habitaciones</b>	<b><i>clean rooms</i></b>
<b>preparar comida</b>	<b><i>prepare food</i></b>
<b>servir la comida en el restaurante</b>	<b><i>serve food in the restaurant</i></b>
<b>vender productos en la tienda</b>	<b><i>sell products in the shop</i></b>



## Opiniones

¿Te gusta tu trabajo?

(No) Me gusta (nada)

mi trabajo porque es...

difícil

duro

estimulante

estresante

interesante

monótono

repetitivo

¿Cómo es tu jefe?

Mi jefe/a (no) es muy educado/a.

¿Cómo son los clientes?

Los clientes son exigentes / maleducados.

Mis compañeros (no) son simpáticos.

¿Cómo eres?

En mi opinión, soy...

Creo / Pienso que soy...

Soy muy / bastante...

ambicioso/a

creativo/a

independiente

inteligente

organizado/a

paciente

práctico/a

responsable

serio/a

sociable

trabajador(a)

## Opinions

*Do you like your job?*

*I (don't) like my job (at all)*

*because it is...*

*difficult*

*hard*

*stimulating*

*stressful*

*interesting*

*monotonous*

*repetitive*

*What is your boss like?*

*My boss is (not) very polite.*

*What are the customers like?*

*The customers are demanding / rude.*

*My colleagues are (not) nice.*

*What are you like?*

*In my opinion, I am...*

*I think I am...*

*I am very / quite...*

*ambitious*

*creative*

*independent*

*intelligent*

*organised*

*patient*

*practical*

*responsible*

*serious*

*sociable*

*hard-working*

¿En qué te gustaría trabajar?

Me gustaría ser...

Quiero ser...

abogado/a

cantante

diseñador(a)

enfermero/a

mecánico/a

periodista

policía

taxista

Me gustaría...

No me gustaría (nada)...

trabajar al aire libre

trabajar con animales

trabajar con niños

trabajar en equipo

trabajar en una oficina

trabajar solo/a

hacer un trabajo creativo

hacer un trabajo manual

*What job would you like to do?*

*I would like to be...*

*I want to be...*

*a lawyer*

*a singer*

*a designer*

*a nurse*

*a mechanic*

*a journalist*

*a police officer*

*a taxi driver*

*I would like...*

*I wouldn't like... (at all)*

*to work in the open air*

*to work with animals*

*to work with children*

*to work in a team*

*to work in an office*

*to work alone*

*to do a creative job*

*to do a manual job*

¿Cómo va a ser tu futuro?

En el futuro...

Voy a...

ganar mucho dinero

hacer un trabajo interesante

ir a la universidad

ser famoso/a

ser voluntario/a

tener hijos

viajar (mucho)

vivir en el extranjero

*What is your future going to be like?*

*In the future...*

*I am going to...*

*earn lots of money*

*do an interesting job*

*go to university*

*be famous*

*be a volunteer*

*have children*

*travel (a lot)*

*live abroad*

Va a ser (muy) interesante.

*It is going to be (very) interesting.*

Describe tu trabajo

*Describe your job*

¿En qué trabajas?

*What do you do for a living?*

¿Por qué decidiste ser...?

*Why did you decide to be a...?*

Me gusta mucho... y por eso  
decidí ser...

*I really like... and so I decided  
to be a...*

Estudié... y me encantó.

*I studied... and I loved it.*

¿Cómo es un día de trabajo típico?

*What is a typical working day like?*

Hablo con clientes.

*I talk to customers.*

Leo mi agenda.

*I read my diary.*

Preparo mis cosas.

*I prepare my things.*

Trabajo con mi equipo.

*I work with my team.*

Voy a la oficina.

*I go to the office.*

¿Qué cualidades tienes que tener?

*What qualities do you need to have?*

Tienes que ser...

*You need to be...*

En mi trabajo, los idiomas son  
muy importantes.

*In my job, languages are  
very important.*

Hablo español, alemán e  
inglés.

*I speak Spanish, German and English.*

¿Cuáles son tus ambiciones  
para el futuro?

*What are your future ambitions?*

Voy a estudiar / trabajar en...

*I am going to study / work in...*

¡Va a ser guay / fenomenal /  
flipante!

*It is going to be cool / fantastic /  
awesome!*

Palabras muy frecuentes

*High-frequency words*

mi/mis

*my*

tu/tus

*your*

además

*in addition, furthermore*

más

*more*

a veces

*at times*

también

*also, too*

a ver/ bueno / pues

*well*

por eso

*so / therefore*

así que

*so / therefore*

primero

*first*

luego

*then*

sin embargo

*however*

¿Llevas una dieta sana?

*Do you have a healthy diet?*

Llevo una dieta sana.

*I have a healthy diet.*

Me gusta (bastante / mucho)

*I (quite / really) like bread.*

el pan.

Me gustan las galletas.

*I like biscuits.*

No me gusta(n) (nada)...

*I (really) don't like... (at all).*

el arroz / el pan

*rice / bread*

el pollo / el pescado

*chicken / fish*

la carne / la ensalada

*meat / salad*

la pasta / la pizza

*pasta / pizza*

los caramelos

*sweets*

los huevos

*eggs*

los pasteles

*cakes*

las galletas

*biscuits*

las verduras

*vegetables*

Como / Comí verduras.

*I eat / ate vegetables.*

Bebo / Bebí agua.

*I drink / drank water.*

¿Con qué frecuencia comes pescado?

*How often do you eat fish?*

Lo/La/Los/Las como...

*I eat it/them...*

tres veces al día

*three times a day*

cada día / todos los días

*every day*

dos veces a la semana

*twice a week*

los fines de semana

*at weekends*

una vez al mes

*once a month*

muy a menudo

*very often*

a veces  
de vez en cuando  
(Casi) nunca lo/la/los/las como.

*sometimes*  
*from time to time*  
*I (almost) never eat it / them.*

¿Qué haces para estar  
en forma?

*What do you do to keep fit?*

Me gusta mucho hacer deporte.

*I really like doing sport.*

Hago artes marciales.

*I do martial arts.*

Hago atletismo.

*I do athletics.*

Hago footing.

*I go jogging.*

Hago gimnasia.

*I do gymnastics.*

Hago natación.

*I go swimming.*

Juego al baloncesto.

*I play basketball.*

Juego al ping-pong.

*I play table tennis.*

Juego al tenis.

*I play tennis.*

Juego al voleibol.

*I play volleyball.*

Juego a la pelota vasca.

*I play pelota (Basque ball game).*

...en el parque / gimnasio

*...in the park / gym*

Voy al polideportivo.

*I go to the sports centre.*

Soy miembro de un club.

*I belong to a club.*

Voy a clases de baile.

*I go to dance classes.*

Prefiero jugar al fútbol.

*I prefer playing football.*

Es mi deporte preferido.

*It is my favourite sport.*

Empecé (a jugar)

*I started (playing)...*

a los (diez) años

*at the age of (ten)*

Voy a empezar a (hacer)...

*I am going to start (doing)...*

### MODULE 3 EN FORMA

¿Cuál es tu rutina diaria?

*What is your daily routine?*

me despierto (muy temprano /  
a las siete)

*I wake up (very early /  
at 7 o'clock)*

me levanto (enseguida)

*I get up (straight away)*

me lavo los dientes

*I brush my teeth*

me ducho	<i>I shower</i>
me visto	<i>I get dressed</i>
me acuesto	<i>I go to bed</i>
desayuno	<i>I have breakfast</i>
meriendo	<i>I have an afternoon snack</i>
ceno (...)	<i>I have (... for) dinner</i>
salgo (a correr)	<i>I go out (running)</i>
corro (veinte kilómetros)	<i>I run (twenty kilometres)</i>
entreno	<i>I exercise / train</i>
voy al insti / trabajo	<i>I go to school / work</i>
Termino (a las dos)	<i>I finish (at two o'clock)</i>
duermo (ocho horas)	<i>I sleep (for eight hours)</i>
Consejos para estar en forma	<i>Advice for keeping fit / in shape</i>
Para estar en forma...	<i>To keep fit / in shape...</i>
Se debe...	<i>You / One must...</i>
beber agua frecuentemente	<i>drink water frequently</i>
comer más fruta y verduras	<i>eat more fruit and vegetables</i>
comer menos chocolate / caramelos	<i>eat less chocolate / fewer sweets</i>
dormir ocho horas al día	<i>sleep for eight hours a day</i>
entrenar una hora al día	<i>train for one hour a day</i>
No se debe...	<i>You / One must not...</i>
beber alcohol	<i>drink alcohol</i>
beber muchos refrescos	<i>drink lots of soft drinks</i>
comer comida basura	<i>eat junk food</i>
fumar	<i>smoke</i>
Soy adicto/a al / a la / a los / a las...	<i>I am addicted to...</i>
A partir de ahora, voy a...	<i>From now on, I am going to...</i>
¿Qué tal estás?	<i>How are you?</i>



¿Qué te duele?

¿Te duele el estómago?

Me duele el brazo / el estómago /  
el pie.

Me duele la cabeza / la espalda /  
la garganta.

Me duele la mano / la pierna.

Me duelen los dientes.

Me duelen los oídos.

Me duelen los ojos.

Tengo catarro.

Tengo náuseas.

Tengo quemaduras de sol.

Tengo tos.

Estoy cansado/a.

Estoy enfermo/a.

No me encuentro bien.

*What hurts?*

*Does your stomach hurt?*

*My arm / stomach / foot hurts.*

*My head / back / throat hurts.*

*My hand / leg hurts.*

*My teeth hurt.*

*My ears hurt / I have earache.*

*My eyes hurt.*

*I have a cold.*

*I feel sick / nauseous.*

*I have sunburn.*

*I have a cough.*

*I'm tired.*

*I'm ill.*

*I don't feel well.*

Palabras muy frecuentes

lo / la

los / las

casi

cada

todo/a/os/as

mucho/a/os/as

ayer

hace (dos) años

el fin de semana pasado

la próxima vez

para

creo que

*High-frequency words*

*it*

*them*

*almost / nearly*

*each / every*

*all*

*a lot (of)*

*yesterday*

*(two) years ago*

*last weekend*

*next time*

*(in order) to, for*

*I think that*

Mis derechos	<i>My rights</i>
Tengo derecho...	<i>I have the right...</i>
al amor y a la familia	<i>to love and to family</i>
al juego	<i>to play</i>
a la educación	<i>to education</i>
a la libertad de expresión	<i>to freedom of expression</i>
a un medio ambiente sano	<i>to a healthy environment</i>
a vivir en armonía	<i>to live in harmony</i>
No puedo...	<i>I cannot...</i>
dar mi opinión	<i>give my opinion</i>
jugar con mis hermanos	<i>play with my brothers and sisters</i>
salir solo/a	<i>go out alone</i>
dormir	<i>sleep</i>
ir al insti(tuto)	<i>go to school</i>
respirar	<i>breathe</i>
porque...	<i>because...</i>
Soy un(a) chico/a	<i>I am a boy/girl</i>
tengo que ganar dinero	<i>I have to earn money</i>
hay mucha violencia	<i>there is a lot of violence</i>
en mi ciudad	<i>in my city</i>
mi padre grita mucho	<i>my dad shouts a lot</i>
tengo que trabajar	<i>I have to work</i>
el aire está contaminado	<i>the air is polluted</i>
No es justo porque...	<i>It isn't fair because...</i>
Es inaceptable porque...	<i>It is unacceptable because...</i>
¡Reciclamos!	<i>Let's recycle!</i>
¿Qué se debería hacer para proteger el medio ambiente?	<i>What should you/we do to protect the environment?</i>
Para proteger el medio ambiente,...	<i>In order to protect the environment,...</i>
Se debería...	<i>You/We should...</i>
ahorrar energía en casa	<i>save energy at home</i>

apagar la luz	<i>turn off the light</i>
cerrar el grifo	<i>turn off the tap</i>
conservar el agua	<i>save water</i>
desenchufar los aparatos eléctricos	<i>unplug electrical devices</i>
ducharse en vez de bañarse	<i>have a shower instead of a bath</i>
ir en bici(cleta)	<i>go by bike</i>
reciclar el papel / el plástico / el vidrio	<i>recycle paper / plastic / glass</i>
usar transporte público	<i>use public transport</i>
No se debería...	<i>You/We shouldn't...</i>
malgastar el agua	<i>waste water</i>
tirar la basura al suelo	<i>throw rubbish on the ground</i>
usar bolsas de plástico	<i>use plastic bags</i>

Mi ciudad	<i>My town / city</i>
¿Cómo era tu ciudad antes?	<i>What was your town / city like before?</i>
Antes...	<i>Before...</i>
era (bastante) aburrida	<i>it used to be (quite) boring</i>
era (muy) peligrosa	<i>it used to be (very) dangerous</i>
estaba sucia	<i>it used to be dirty</i>
había mucha basura	<i>there used to be a lot of rubbish</i>
había mucha contaminación	<i>there used to be a lot of pollution</i>
había mucha violencia	<i>there used to be a lot of violence</i>
no había medios de transporte público	<i>there didn't use to be means of public transport</i>
no había nada para los jóvenes	<i>there didn't use to be anything for young people</i>
¿Cómo es ahora?	<i>What is it like now?</i>
Ahora...	<i>Now...</i>
está limpia	<i>it is clean</i>
hay menos basura	<i>there is less rubbish</i>
hay menos contaminación	<i>there is less pollution</i>

hay parques y espacios públicos  
muy bonitos

*there are very nice parks and  
public spaces*

hay una red de transporte muy  
buena

*there is a very good transport  
network*

hay muchas cosas para los  
jóvenes

*there are lots of things for young  
people*

no tiene barrios peligrosos

*it doesn't have dangerous  
neighbourhoods*

Palabras muy frecuentes

*High-frequency words*

mi/mis

*my*

su/sus

*his/her/their*

nuestro/a/os/as

*our*

más... (que)

*more... (than)*

menos... (que)

*less... (than)*

para

*(in order) to / for*

hay

*there is / there are*

había

*There was / were / used to be*

a partir de ahora

*from now on*

además

*in addition, furthermore*



# Year 9 Computer Science Independent Learning Revision

Homework	Set	Due wb	Task and pages
1	15/04/24	22/04/24	<p>Systems Architecture</p> <p>Write down <u>key words and definitions</u></p> <ul style="list-style-type: none"> <li>• Try not to use your knowledge organiser to help you</li> <li>• Use your green pen to check your work</li> </ul>
2	22/04/24	29/04/24	<p>Memory and Storage</p> <p>Use your knowledge organiser to condense and <u>write down key facts and information on your</u> flash cards add pictures .</p> <ul style="list-style-type: none"> <li>• self-quiz yourself the flash cards. You can write questions one side and answers on the other</li> <li>• Ask a parent/carer/friend to quiz you on your knowledge using your flash cards</li> </ul>
3	29/04/24	06/05/24	<p>Wired and Wireless Networks</p> <p>Use your knowledge organiser to create a <u>mini quiz</u>. Write down questions using your knowledge organiser</p> <ul style="list-style-type: none"> <li>• Answer the question and remember to use full sentence</li> <li>• Keep self-quizzing until you get all answers correct</li> </ul>
4	06/05/24	13/05/24	<p>Programming techniques</p> <p>Create a <u>mind map</u> with all the information you can remember from your knowledge organiser</p> <ul style="list-style-type: none"> <li>• Check your knowledge organiser to see if there were any mistakes with the information you have made.</li> <li>• Try to make connections that links information together</li> </ul>
5	13/03/24	20/05/24	<p>Data representations</p> <p>Ask a family member or friend to have the knowledge organiser in their hands</p> <ul style="list-style-type: none"> <li>• They can test you by asking questions on different sections of your knowledge organiser. Write down your answers</li> </ul>
6	20/05/24	03/06/24	<p>Internet safety</p> <p>Look at and study a specific area of your knowledge organiser</p> <ul style="list-style-type: none"> <li>• Cover the knowledge organiser and write down everything you remember. Check what you have write down. Correct any mistakes in green pen and add anything you missed. Repeat.</li> </ul>
7	03/06/24	10/06/24	<p>Spreadsheets</p> <p>Complete the crossword</p> <ul style="list-style-type: none"> <li>• Create your own cross word using keywords :IF, COUNTA, COUNTBLANK, COUNT, CELL REFERENCE, ABSOLUT CELL REFERENCE</li> </ul>

Please also remember to check Seneca Learning for revision tasks to complete for the examinations

ASPIRING TO EXCELLENCE TOGETHER



<ul style="list-style-type: none"> <li>Understand what the CPU is, how it works and how its performance is measured</li> </ul>				
Data representation	☺	☹	☹	
<ul style="list-style-type: none"> <li>Understand how to convert denary to binary</li> <li>Understand how to convert binary to denary</li> <li>Understand how to Add in binary</li> <li>Understand how to convert binary to ASCII</li> <li>Understand how to convert binary to Hex</li> <li>Understand how an image is represented in a computer</li> <li>Understand how to Convert binary numbers to images</li> <li>Understand how computers represent sound waves</li> <li>Logic gates</li> </ul>				
<b>Internet Safety</b> <ul style="list-style-type: none"> <li>Identify what is personal information</li> <li>Cyberbullying</li> <li>Grooming- awareness of online behaviours, in order to stay safe on the web.</li> <li>Know how to report concerns</li> <li>Recognise inappropriate contents</li> </ul>				
<b>Spreadsheets</b> <ul style="list-style-type: none"> <li>Format your spreadsheet.</li> <li>Use basic formulas such as +/*- correctly</li> <li>Use sum function</li> <li>Use average function correctly</li> <li>Use max function correctly</li> <li>Use min function correctly</li> <li>Create a graph using given data</li> <li>Correctly label the graph.</li> </ul>				



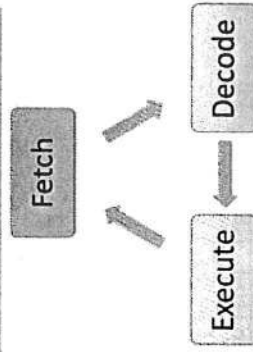
# SYSTEMS ARCHITECTURE

## KEY CONCEPTS

- Computer systems take data (input), process it and then output it.
- **Embedded systems** are computers built in to other devices like washing machines. They are dedicated to a single task so they are efficient.
- **Clock speed:** the number of instructions a processor can carry out per/second. Higher clock speed = faster CPU.
- **Number of Cores:** The more cores a CPU has the more instructions it can carry out at once (multitasking).
- More cores = faster processing.
- **Cache size:** A larger cache gives the CPU faster access to more data

## FETCH - DECODE - EXECUTE CYCLE

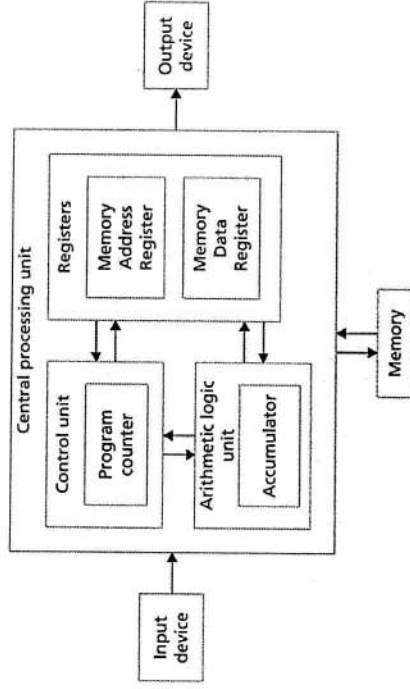
CPU fetches instruction from the RAM (Copies memory address to MAR, copies Instruction to MDR & adds 1 to PC. CU decodes the instruction from the MDR Instruction is executed by the CU The next instructions is fetched and The cycle repeats.



## EXAM QUESTIONS

1. Explain how cache size, cores and clock speed affect the performance of the CPU.
2. Define what is meant by an embedded system
3. What is the purpose of the ALU?
4. Explain the role of the CPU registers (MAR and MDR)
5. Explain how the fetch decode execute cycle works

## THE CENTRAL PROCESSING UNIT (CPU)



**Control Unit (CU):** executes instructions and controls the flow of data in the CPU.

**Program counter:** holds the memory address for the instruction of each cycle.

**Arithmetic Logic Unit (ALU):** does all of the calculations and logic operations.

**Accumulator:** holds the result of any calculations in the ALU.

**Cache:** very fast memory that stores regularly used data so that the CPU can access it quickly.

**MAR (Memory Address Register):** holds the address about to be used by the CPU.

**MDR (Memory Data Register):** holds the actual data or instruction being processed by the CPU.

# WIRED AND WIRELESS NETWORKS

## Key Terms

A network is where devices have been connected together so that they can share data and resources. Networks can be wired (Ethernet) or wireless (Wi-Fi).

<b>Local Area Network (LAN)</b>	Cover a small geographical area such as an office. Use their own infrastructure.
<b>Wide Area Network (WAN)</b>	WANs connect LANs together over a large geographical area and make use of infrastructure from telecommunications companies.
<b>Bandwidth</b>	The amount of data that can pass between network devices per second
<b>Server</b>	A device that provides services for other devices (e.g. file server or print server)
<b>Client</b>	A computer or workstation that receives information from a central server
<b>Peer to peer Network</b>	All of the computers in the network are equal. They connect directly to each other.
<b>Standalone computers</b>	A computer not connected to a network

## NETWORK HARDWARE

**Network Interface Controller (NIC):** built in hardware that allows a device to connect to a network.

**Switches:** connect devices on a LAN

**Router:** Transmits the data (packets) between the networks (eg: the internet and your LAN)

**Wireless Access Point (WAP):** a switch that allows devices to connect wirelessly.

**Cables:** the cables in a network can be twisted pair cables, coaxial cables or fibre optic cables.

## NETWORK PERFORMANCE

These factors can impact on network performance:  
**Bandwidth:** The more bandwidth, the more data that can be transferred at a time.

**Number of Users:** Having a lot of people using a network means lots of data is being transmitted which can slow it down.

**Transmission Media:** Wired connections are faster than wireless. Fibre optic cables are faster than copper cables.

**Wireless Factors:** wireless can be affected by walls, distance, signal quality and interference from other devices.

**Topology:** The layout of a network can impact on its performance.

## VIRTUAL NETWORKS

A virtual network is part of a LAN or WAN where only certain devices can "see" and communicate with each other usually connected remotely.

## EXAM QUESTIONS

1. Give 3 items of hardware needed for a network
2. Explain the difference between a peer-to-peer network and a client server network.
3. The school's network has become very slow. Explain two different reasons why this might be.
4. Evaluate the benefits of using a wired connection rather than a wireless one.

# DATA REPRESENTATION

## DENARY

Denary is the decimal number system that we are used to. It uses the numbers 0-9 and the column headings go up in powers of 10.

100 (Hundreds)	10 (Tens)	1 (Units)
2	3	8
2 lots of 100	3 lots of 10	8 lots of 1

## BINARY

Binary uses the numbers 0 and 2. The column headings go up in power of 2:

128	64	32	16	8	4	2	1
0	1	0	0	0	1	1	1

$$64 + 4 + 2 + 1 = 71$$

## HEXADECIMAL

Hexadecimal uses 0- F (A=10, B=11, C=12, D=13, E=14, F=15). The headings go up in powers of 16.

16	1
3	D
3 lots of 16	D (13) lots of 1

$$3 * 16 = 48$$

$$D (13) * 1 = 13$$

$$48 + 13 = 61$$

To convert a binary number to Hexadecimal, split into 2:

8	4	2	1	8	4	2	1
0	0	1	1	1	1	0	1

$$= 3$$

$$= D$$

## BINARY ADDITION

$$\begin{array}{r}
 1\ 0\ 0\ 1\ 0\ 1\ 0\ 1 \\
 +\ 1\ 1\ 0\ 1\ 1\ 0\ 1\ 1 \\
 \hline
 1\ 1\ 1\ 1\ 1\ 0\ 0\ 0\ 0 \\
 1\ 1\ 1\ 1\ 1\ 1
 \end{array}$$

This binary addition gives an overflow error as the total does not fit in 8 bits (a byte).

## IMAGES

Images are made up of pixels

The colour of each pixel is represented by a binary number. If an image uses 1 bit to represent each colour then it will only have 2 colours:

0	0	1	0	0
0	0	0	1	0
1	1	1	1	1
0	0	0	1	0
0	0	1	0	0

0	0	1	0	0
0	0	0	1	0
1	1	1	1	1
0	0	0	1	0
0	0	1	0	0

This is a 1-bit image so it uses 2 colours.  
0=white and 1=black

Using more bits allows for more colour options:

10	11	00	11	10
11	11	00	11	11
00	00	01	00	00
11	11	00	11	11
10	11	00	11	10

11	00	11	11
11	11	00	11
00	00	01	00
11	11	00	11
11	11	00	11

This is a 2-bit images so it uses 4 colours.

00=white,  
01=blue, 10=red,  
11=black

Colour depth = the number of bits used for each pixel

Resolution = how many pixels are in a certain space - this is measured in "dots per inch". If there are more dots per inch then there are more pixels in the image so it will have a higher resolution and a better picture quality.

The higher the resolution or the colour depth, the more bits used, so the bigger the file size.

Metadata = the information about the image file that is stored

Metadata + This makes sense the file is identified correctly. It can



# MODELLING DATA - SPREADSHEETS

## Key Terms

Modeling	A program which has been developed to mimic a real life system. Spreadsheets use mathematical formulas and calculations to predict what is likely to happen based on data recorded about what actually did happen in the past. Software includes Microsoft Excel and Google Sheets.
Cell	One box on a spreadsheet. A group of cells together is called a <b>range</b> .
Cell Reference	The unique 'address' of a cell on a spreadsheet, made up of the Column letter and Row number, e.g. A1
Range	A group of cells that are next to each other, e.g. A2:B6
Active cell	The currently selected cell. It has a thick black line around it with a small dot called the fill handle in the bottom right corner.
Row	A group of cells 1 cell high going across a worksheet. In Excel, these are the numbers down the left side of the page.
Column	A group of cells 1 cell wide going from the top to the bottom of a worksheet. In Excel these are the letters going across the top of the page.
Label	This is a piece of text that explains what the data in the cell next to it represents.
Absolute cell reference	Refers to a specific cell and doesn't change when copied to other cells using the fill handle. E.g. \$D\$3
Chart	A picture of data made from a range of cells. There are lots of types which are useful for different reasons, e.g. pie, line, scatter, area, radar, bar, radar etc
Legend	A table that explains which data is represented by different colours on a chart
Formula	Used in a spreadsheet cell, this starts with an '=' and combines numbers, mathematical operators and functions to manipulate data
Function	These are built in to spreadsheets and perform standard tasks, like finding the average, highest and lowest of a set of numbers. They always look like =functionName(Details the function needs). Tooltips will appear as you type them to tell you what details that function needs.
Fill	Copies the contents of a cell or range of cells into others by dragging the fill handle in the bottom right of the active cell or range.
Conditional Formatting	Changes what a cell looks like based on rules about the data a cell contains.

## Key Facts / Methods / Processes/Questions

Where are Computer Models used?  
 Computer models are used in schools to predict student performance in exams, they are used to predict the weather, to predict how financial markets are going to change, to see whether car components will fit together before they are made and to see if a business is making enough money to stay open.

How are spreadsheets used in computer models?  
 Spreadsheets are very good at processing data and then presenting it in graphical form. Presenting data in the form of a chart makes it much easier to understand, which makes it more persuasive than a table of numbers.

Cell references begin with a letter, and finish with a number. EG: A1

A	B	C	D	E	F	G
1						
2						
3						
4						
5						

A range is a selection of cells. EG: A1:B2

A	B	C	D	E	F	G
1						
2						
3						
4						
5						

Golden rule: every formula always starts with an =

**Name of the formula**  
 See below for common formulae. Normally written in capitals.

**=SUM(B10:B23)**

**= sign** An equal sign tells Excel that the cell contains a formula.

**The selected range** The range used in the formula. This can be selected by clicking and dragging.

## Cell Formatting

<b>Number</b>	tell the spreadsheet what type of data the cell contains, eg currency, percentage, date, time, etc
<b>Alignment</b>	align the text in the cell vertically (top, bottom or middle), horizontally (left or right) or at an angle
<b>Font</b>	change the font used, text size and colour
<b>Border</b>	- add a solid, dotted, dashed or coloured border to the cell To adjust a column's width or a row's height, move your mouse cursor between two columns or rows. Click and drag to resize. To automatically resize a row to fit the data entered in a cell, double-click between the current row and the row after it.

## Modelling Data

**Example Question**

1) Begin by calculating Min, Max, Average for the price of the products sold

2) Use a function to calculate the total stock

3) Add an IF function to monitor stock levels. If stock falls below 20 then 'Re-Order' or 'No Action'.

4) Add conditional formatting on the Re-Order cells

## Common Functions

= sum (!)	Adds a range of cells together.
= average (!)	Finds the average for a range of cells
= min (!)	Returns the smallest value in the range
= max (!)	Returns the highest value in the range
= count (!)	Counts how many cells meet a condition, e.g. count(A:A, "April") would return the number of times the word April (with a capital letter), occurs in column A

## Advance Functions

IF	change the value of a cell if something is true, eg if a customer's total bill is over £100, deduct 10% from their bill.
COUNTIF	adds up cells that meet a certain rule, eg count the number of students that achieved level 5.
VLOOKUP	matches contents of a cell with an answer, eg how much is a pepperoni pizza?

## Charts & Graphs

Column Line Pie Bar Area Scatter Other Charts

Charts and graphs provide a visual representation of data, which can often be easier to understand. There are several types of charts and present data — You must always consider which would be a suitable chart or graph for your model.

**LINE GRAPH** — to show a change over time

**PIE CHART** — show the individual parts that make up a whole

**BAR CHART** — compare things that aren't directly related

**SCATTER GRAPH** — look for a pattern or link between two sets of data

# Year 9 Religious Education Independent Learning Revision

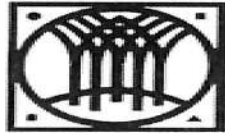
Homework task	Set	Due week beginning	Task and pages
1	15/04/24	22/04/24	Create a revision material that demonstrates you have revised Y7 content (Abrahamic religions- Christianity, Islam & Judaism)
2	29/04/24	06/05/24	Create a revision material that demonstrates you have revised Y8 content (Dharmic religions – Hinduism, Buddhism, Sikhism)
3	13/05/24	20/05/24	Rewrite a perfect 4 marks answer to the “ <b>Explain two similar religious beliefs in contemporary British society that are used to oppose animal experimentation. (4 marks)</b> ”

## Topics to revise:

1. Religion and Life
2. Religion Peace and Conflict
3. Religion, Crime and Punishment
4. Philosophy

\* Previous Y7 & Y8 content (Abrahamic Religions – Christianity, Judaism & Islam) + (Dharmic Religions – Hinduism, Buddhism & Sikhism)

Please also remember to check Seneca Learning for revision tasks to complete for the examinations.



**\* Previous Y7 content (Abrahamic Religions – Christianity, Judaism & Islam) + Previous Y8 content (Dharmic Religions – Hinduism, Buddhism & Sikhism)**

**Homework task 1:** Read through the knowledge organisers for Christianity, Islam and Judaism. Create a revision tool/ resource that will help you remember Y7 topics.

**Previous Y7 content (Abrahamic Religions – Christianity, Judaism & Islam)**



### Judaism – Knowledge Organiser

<u>1</u>	How old is it?	Judaism began nearly 4,000 years ago in a place called the Middle East.
<u>2</u>	Where did it originate?	The Middle East is a large area on the border of Asia, Africa and Europe.
<u>3</u>	Percentage of the UK population?	0.46% of the population of England and Wales
<u>4</u>	What is the name of its <b>Holy Book(s)</b> ?	<p>Tanakh or Hebrew Bible</p> <ul style="list-style-type: none"> <li>• The Torah (T) which is the first five books of the Hebrew Bible. The Christian Bible also begins with these books, in the part which Christians call the Old Testament.</li> <li>• The Nevi'im (N) which are the books of the Jewish prophets such as Joshua and Isaiah.</li> <li>• Ketuvim (K) which is a collection of other important writings.</li> </ul>
<u>5</u>	Name of G-d.	<p>G-d, L-rd (the letter "o" is removed as a sign of respect in Judaism and many other religions)</p> <p>Other names include</p> <p>Yahweh</p> <p>Jehovah</p>
<u>6</u>	A key belief is... (name at least two)	<p>Abraham</p> <p>Important prophet- Abraham was the first person to make a covenant with God.</p> <p>Moses is the most important Jewish prophet.</p> <ul style="list-style-type: none"> <li>• The Torah has 613 commandments which are called mitzvah. They are the rules that Jews try to follow.</li> </ul>

		<ul style="list-style-type: none"> <li>• The most important ones are the Ten Commandments given to Moses.</li> <li>• Eating Kosher foods and following dietary laws.</li> </ul>
<u>7</u>	Name a place of worship	Synagogue on Saturdays
<u>8</u>	Name a type of <b>worship</b>	13 years old boys - Bar Mitzvah (Son of the Commandment).  12-13 year old girls - Bat Mitzvah (Daughter of the Commandment).
<u>9</u>	Name a sacred land/country	Israel in the Holy City of Jerusalem
<u>10</u>	Name at least one <b>religious festival/ tradition</b>	<ul style="list-style-type: none"> <li>• Passover</li> <li>• Rosh Hashanah</li> <li>• Yom Kippur</li> <li>• Seder plate</li> <li>• Respecting Sabbath day (ceasing from work)</li> </ul>
<u>11</u>	Name the different <b>denominations</b> (types) of Judaism.	Traditional (also known as Orthodox) and Progressive (also known as Reform).  Ashkenazi  Conservative



Christianity - Knowledge Organiser		
1	How old is it?	Over 2,000 years
2	Where did it originate?	Palestine
3	Percentage of the UK population?	38% (approx.)
4	What is the name of its Holy Book(s)?	Bible
5	Name of God(s)	God
6	A key belief is... (name at least two)	Trinity (God is the Father, Son and Holy Spirit) Heaven and Hell Birth, Death and Resurrection of Jesus Christ
7	Name a place of worship	Church
8	Name a type of <b>worship</b>	Eucharist (bread and wine to remember Jesus' sacrifice) Mass (Catholic form of worship) Singing Prayer Lighting Candles
9	Name a sacred land/country	Israel
10	Name at least one <b>religious festival/tradition</b>	Easter Christmas Lent Christingle
11	Name the different <b>denominations</b> (types) of Christianity.	Catholic Christians Anglican Orthodox Christians Methodist Baptist Pentecostal Seventh-Day Christians Mormons



### Islam- Knowledge Organiser

1	How old is it?	Founded in 570AD
2	Where did it originate?	Saudi Arabia
3	Percentage of the UK population?	4.3% (approx..)
4	What is the name of its Holy Book(s)?	Qur'an
5	Name of God(s)	Allah
6	A key belief is... (name at least two)	Tawhid (One God) Risalah (guidance from Holy Book) Eating Halal food
7	Name a place of worship	Mosque
8	Name a type of <b>worship</b>	<ul style="list-style-type: none"> <li>• Salah (to pray) five times a day</li> <li>• Friday is a special day as a sermon is given during midday prayer</li> </ul>
9	Name a sacred land/country	Mecca, city, western Saudi Arabia,
10	Name at least one <b>religious festival/tradition</b>	Eid al-Fitr marks the end of <b>Ramadan</b> , Eid-ul-Adha marks the end of the annual pilgrimage to Mecca (Hajj). It is a day of sacrifice and forgiveness. Families come together, visit the mosque, offer special prayers Fasting during Ramadan
11	Name the different <b>denominations</b> (types) of Islam.	Following <b>Prophet Muhammed's death</b> , Muslims split of Islam into <b>Sunni</b> and <b>Shia</b> Muslims.



Hinduism – Knowledge Organiser		
1	How old is this religion?	Over 4000 years plus
2	Where did it originate?	It originated (began) in the Indus Valley Civilisation in North West India. Today that region is known as <b>Pakistan</b> .
3	Percentage of the UK population?	1.7% (approx.)
4	What is the name of its Holy Book(s)?	<p>Hinduism does not have a single holy book, but many ancient texts and scriptures.</p> <ol style="list-style-type: none"> <li>1. The Vedas - a collection of hymns praising the Vedic gods. Veda means 'knowledge'.</li> <li>2. The Ramayana - long epic poems about Rama and Sita.</li> <li>3. The Mahabharata - which includes the Bhagavad Gita.</li> <li>4. The Puranas - a collection of stories about the different incarnations and the lives of saints</li> </ol>
5	Name of God(s)	Polytheistic – belief in many Gods
6	A key belief is... (name at least two)	<p>Central to Hinduism is the belief in a supreme God <b>Brahman</b>. Brahman is present everywhere and there is a part of Brahman in everyone.</p> <p>Brahman takes many forms. Especially three forms called the <b>Trimurti</b>.</p> <ul style="list-style-type: none"> <li>• <b>Brahma</b> is the <b>creator</b> of the world and all creatures. He is usually shown with four heads.</li> <li>• <b>Vishnu</b> is the <b>preserver</b> of the world. His role is to return to the earth in troubled times and restore the balance of good and evil. He has blue skin and four arms.</li> <li>• <b>Shiva</b> is the <b>destroyer</b> of the universe. Shiva destroys the universe in order to re-create it. Shiva has</li> </ul>

		blue skin, a third eye and carries a trident.
7	Name a place of worship	Hindus worship in a temple called a <b>Mandir</b> . <b>Mandirs</b> vary in size from small village shrines to large buildings, surrounded by walls.  People can also visit the Mandir at any time to pray and participate in the bhajans (religious songs).  Hindus also worship at home and often have a special room with a shrine to particular gods.
8	Name a type of worship	Meditation, prayer, singing of hymns and reading scripture. Home worship in front of a shrine.
9	Name a sacred land/country	River Ganges (India)
10	Name at least one religious festival	Diwali Holi
	Hindu prayers	<ol style="list-style-type: none"> <li>1. The Bhagavad-Gita 9: 26: 'If anyone offers me A leaf, flower, fruit or water with devotion, I accept that gift from the giver who gives himself.'</li> <li>2. Rig Veda 3. 6. 10: 'We meditate on the glorious light of God. May it inspire our minds.'</li> <li>3. The Upanishads 1.1. 28: 'Om! From untruth lead us to truth, from darkness lead us to light, from death lead us to immortality.'</li> </ol>





### Buddhism – Knowledge Organiser

1	How old is this religion?	2,500 years old
2	Where did it originate?	Nepal (Northern India)
3	Percentage of the UK population?	0.5% (approx.)
4	What is the name of its Holy Book(s)?	The Buddhist scriptures are known as the Tipitaka which means 'three baskets'. Sutras
5	Name of God(s)	No God Siddhartha Gautama became known as the Buddha, which means the 'awakened' or 'enlightened' one. From then on, he dedicated his life to spreading his teachings.
6	A key belief is... (name at least two)	Enlightenment Dukkha Nibbana Ending suffering
7	Name a place of worship	Viharas – Buddhist temples Buddhists will take off their shoes, put their hands together and bow to the image of the Buddha. They may also use prayer beads called malas.  Some Buddhists may also have a shrine within their home too.
8	Name a type of worship	Meditation, prayer, chanting, scripture
9	Name a sacred land/country	Places around India such as Lumbini or Bodhgaya (places of pilgrimage- religious journeys)
10	Name at least one religious festival	Wesak Katina Pari nirvana Day





Sikhism - Knowledge Organiser		
1	How old is it?	15 <sup>th</sup> century (Guru Nanak, the founder of Sikhism was born in 1469)
2	Where did it originate?	India (Punjab region)
3	Percentage of the UK population?	1% (approx.)
4	What is the name of its Holy Book(s)?	Shabads
5	Name of God(s)	Waheguru
6	A key belief is... (name at least two)	<p>Mukti (freedom from rebirth)  Gurmukh (god centred)  Sikhs believe in one God who guides and protects them. They believe everyone is equal before God. Sikhs believe that your actions are important and you should lead a good life. They believe the way to do this is:</p> <ul style="list-style-type: none"> <li>➤ Keep God in your heart and mind at all times</li> <li>➤ Live honestly and work hard</li> <li>➤ Treat everyone equally</li> <li>➤ Be generous to those less fortunate than you</li> <li>➤ Serve others</li> </ul>
7	Name a place of worship	Sunday service - Gurdwara
8	Name a type of worship	meditation, prayer, singing of hymns and reading scripture, chanting
9	Name a sacred land/country	The Golden Temple in Amritsar, India
10	Name at least one religious festival	Vaisakhi Gurpurbs

## YEAR 9 – PLC Religion and Life



What do I need to know?			
<b>1.1 How did the Universe begin?</b>	☺	☹	☹
<b>Outline</b> various religious teachings about the origins of the universe			
<b>Examine</b> different interpretations of these origins			
<b>Contrast</b> scientific theories against religious views of the creation of the universe			
<b>1.2 How do religious views on the environment differ?</b>	☺	☹	☹
<b>Explain</b> how the concepts of Stewardship and Dominion impact attitudes towards the environment			
<b>Analyse</b> how religion can impact behaviour towards use and abuse of the environment: including pollution, natural resources, global warming and destruction of habitats			
<b>Compare</b> environmental approaches between Christianity, Buddhism, Islam			
<b>1.3 Should all animals have rights?</b>	☺	☹	☹
<b>Explain</b> the concepts of animal rights and speciesism			
<b>Analyse</b> religious views towards animal experimentation			
<b>Analyse</b> religious views towards the use of animals for food			
<b>1.4 Abortion: When Does Life Become Life?</b>	☺	☹	☹
<b>Explore</b> the value of human life in terms of sanctity of life and the quality of life			
<b>Examine</b> abortion from the pro-life and pro-choice view.			
<b>Assess</b> other issues arising from abortion such as what the law says and who decides			
<b>1.5 How do religious attitudes towards life impact Euthanasia?</b>	☺	☹	☹
<b>Outline</b> the arguments for and against euthanasia			
<b>Compare</b> religious beliefs about death and the value of human life and how they relate to laws on euthanasia			
<b>Evaluate</b> whether euthanasia should be legalised in the UK			
<b>1.6 What are religious beliefs about the afterlife?</b>	☺	☹	☹

## Knowledge Organiser Year 9 Autumn 1: Religion and Life

Religion and life	
<p>Religious views of the universe</p> <p>Creation- idea that God created the world/universe from nothing.</p> <p>Awe- an overwhelming feeling often of reverence with a link to God.</p>	<p>Fundamentalist viewpoint- Some Christians believe the Bible is literally true. The stories in it happened word for word as it is written. For example the world was created in 6 days. There are no errors in the Bible as it is the Word of God Himself.</p> <p>Metaphorical viewpoint - The Bible is a metaphor. It is a fictional story with a meaning / message behind it. For example the story of creation is just a myth and the meaning and symbolism behind that is important. The story of creation tells us about what God is like e.g. He is powerful as He created the world.</p>
<p>Scientific views of the universe</p>	<p>Science- knowledge coming from observed regularity in nature and experimentation.</p> <p>Evolution- change in inherited traits in a species. Charles Darwin- the man who put forward the theory of evolution in the 19<sup>th</sup> Century.</p> <p>Big Bang Theory- the scientific view of the beginning of the universe.</p> <p>Natural selection- one of the most basic mechanisms of evolution.</p>
<p>Attitudes towards the environment</p>	<p>Environment- the world around us.</p> <p>Dominion- the idea that humans have the right to control all of creation.</p> <p>Stewardship- duty to look after the world and life.</p> <p>Conservation- to repair and protect animals and areas of natural beauty.</p> <p>Sustainable energy- resources that are renewable e.g. solar, wind and nuclear power.</p>
<p>Vegetarianism</p>	<p>Buddhism &amp; Hinduism – vegetarian ahimsa (non-violence) and respect for all life</p> <p>Sikhism- vegetarian to show respect for God's creation and the Sikh langar (community kitchen) is always serves a vegetarian meal.</p>
<p>Animal rights</p>	<p>The idea that animals should have rights because of respect for life.</p>

<p>What is Abortion?</p> <p>What is sanctity?</p> <p>What is meant by quality of life</p>	<p>Deliberate expulsion of a foetus from the womb with the intention to destroy it.</p> <p>Life is considered as special because God created life. How good/ comfortable life is.</p> <p>How good/comfortable life is.</p>
<p style="text-align: center;"><b><u>Abortion Act 1967</u></b></p> <p>2 doctors agree that:  There is danger to the woman’s mental/physical health.  The foetus will be born with physical/mental disabilities.  The mental/physical health of existing children will be at risk.  1990 amendment - said abortion could only take place up until 24 weeks (6 months), <b><u>UNLESS</u></b> the mother’s life is at risk.</p> <p><b>Roman Catholics</b> believe abortion is always wrong; life is sacred and begins at conception and so it must be protected. The Didache (teaching of the 12 Apostles) states: ‘Do not kill your children by abortion’. Vatican II says ‘Life must be protected with the utmost care from the moment of conception’.</p> <p><b>Islam:</b> Abortion is frowned upon. Many believe ensoulment takes place at 120 days. Before this, it may be permissible to have an abortion. ‘Nor can a soul die, except by God’s leave’ (Qur’an 3:145)</p>	
<p>What does Pro-life mean?</p> <p>What does Pro-choice mean?</p>	<p>Pressure groups that campaign against abortion/euthanasia</p> <p>Pressure groups that campaign for the right of a woman to decide on abortion.</p>
<p>What is euthanasia?</p>	<p>Mercy killing: ending life for someone who is terminally ill, or has a degenerative disease can be voluntary (a person deciding)</p> <p>Right to die – the belief that a human being should be able to control their own death.</p> <p>Hospice- a place that cares for the dying usually from an incurable disease.</p>

Religion and life		
Comparing beliefs: the afterlife: What do the following faiths believe about life after death?		
15	Buddhists	Buddhists believe in rebirth and that no soul is fixed
16	Hindus	Hindus believe in reincarnation and that the soul lives many lives
17	Christians	Christians believe in the physical reincarnation of the body
18	Islam	Muslims believe in resurrection
19	Judaism	Jews focus less on the afterlife than waiting for the Messiah who will come to rule the Earth
20	Sikhism	Sikhs believe in reincarnation.

**Homework Task 2:** Rewrite a perfect 4 marks answer to the “**Explain two similar religious beliefs in contemporary British society that are used to oppose animal experimentation.** (4 marks)

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**QUESTION:** Explain two similar religious beliefs in contemporary British society that are used to oppose animal experimentation. (4 marks)

**First belief**

Simple explanation of a relevant and accurate belief – 1 mark

Detailed explanation of a relevant and accurate belief – 2 marks

**Second belief**

Simple explanation of a relevant and accurate belief – 1 mark

Detailed explanation of a relevant and accurate belief – 2 marks

**Allow up to 4 marks for a response which covers any combination of religions whether contrasting or similar.**

**Students may include some of the following points, but all other relevant points must be credited:**

Some suggested answers:

Humans are more valuable than animals / it is cruel, and animals suffer and often die / cosmetic testing isn't necessary / there are viable alternatives to testing / animal testing takes advantage of animals' inability to give consent so is exploitative and wrong, etc.

**Buddhism**-Buddhists teach that it is important to protect the natural world and live in harmony with it / all creatures are part of cycle of rebirth / compassion and loving kindness should extend to all living things / ahimsa applies to animals / there are alternative methods scientists can use which do not result in animal cruelty, etc.

**Christianity**- Christians view animals as part of God's creation / they believe part of their duty, as stewards of creation, is to protect animals, not exploit them / 'The righteous care for the needs of their animals' - Proverbs 12:10 / opposed to testing cosmetics on animals as it isn't necessary, etc.

**Hinduism**- Hindus believe all creatures are part of Brahman and thus should be respected / it is part of duty (dharma) to protect animals and show ahimsa / animals have souls and are part of the cycle of life, death and rebirth / causing them to suffer may result in bad karma / animals associated with deities should be protected, etc.

**Islam**- Muslims believe that everyone can be challenged on Judgement Day on how they have treated animals / sparrow quote (Hadith) / Muslims believe scientific experiments should not involve cruelty / testing cosmetics on animals is seen as wrong, etc.

**Judaism**- Jewish beliefs include Genesis 1 which gives humans responsibility over animals, which must not be abused / many Biblical passages show concern for animals and treating them fairly (e.g. Proverbs 12:10), etc.





**YEAR 9 – Religion, Peace & Conflict PLC**  
**How can we link religion to conflict and war?**



<b>What do I need to know?</b>			
<b>1.1 Is violence necessary?</b>	☺	☹	☹
Define and understand what violence is			
Analyse patterns of violence across the world			
Assess whether it is ethical to go to war			
<b>1.2 Does religion cause war?</b>	☺	☹	☹
Define terrorism and understand the different forms of terrorism			
Explain religious viewpoints on war			
Assess the significance of religion in war			
<b>1.4 Is it fair to call the Israel Palestine conflict a 'religious war'?</b>	☺	☹	☹
Explain the causes of the Israel Palestine conflicts			
Assess the influence of religion on the conflict			
<b>1.4 Is it ever right to go to war?</b>	☺	☹	☹
Outline the theory of Just War			
Explain the origins of the theory of Just War			
Assess the Just War theory in relation to past and present conflicts			
<b>1.5 Extended writing</b>	☺	☹	☹
Outline the various views on the theory of Just War			
Evaluate whether the Just War theory is relevant in the modern world			
<b>1.6 Why are some people pacifists?</b>	☺	☹	☹
Define the term pacifism			
Explain pacifism and its link to religion			
Assess how far pacifism is realistic in the modern world			

## Knowledge Organiser Year 9 Autumn 2: Religion, Peace & Conflict

Religion, Peace & Conflict		
1	What is Justice?	Fairness, making the right and fair a situation that has been unjust
2	What is Peace?	To live in harmony and without fear
3	What is reconciliation?	Top try to bring sides together and help resolve issues peacefully
4	What is forgiveness?	The belief that we should be able to move a relationship forward with someone who has done wrong to us.
5	What is conflict?	Conflict is disagreement, armed conflict is actual fighting
6	What does the term the lesser of two evils mean?	That sometimes evil (or violence) has to take place in order to remove/stop a greater evil taking place
7	What is just war theory?	Christian belief that fighting is sometimes necessary for justice as long as the conditions for war are 'just'
8	What were the causes of WWI?	Assassination of Franz Ferdinand, Rivalry between nations, imperialism, militarism
9	What were the causes of WWII?	Fascism, Hitler and the Nazis, Treaty of Versailles
10	Name one of the three conditions that Thomas Aquinas gave for the Just War theory	<ol style="list-style-type: none"> <li>1. Only governments can start wars (legal authority)</li> <li>2. There must be a proper reason for going to war (just cause)</li> <li>3. The war should be fought so that things will be better for everyone (just intention)</li> </ol>
11	When did the Iraq War begin?	2003
12	What is a Pacifist?	Someone who believes that all forms of violence are wrong
13	What is a Holy War?	The rules around fighting a war that is acceptable to a religion
14	What is a conscientious objector?	Someone who refuses to do something, such as fight in a war, due to their conscience.
Religious teachings		
15	Buddhists	Refrain from harming others Hatred does not cease by hatred, hatred ceases by love
16	Hindus	The pursuit of truth does not permit violence being permitted on one's opponent (Gandhi)
17	Christianity	Love thy neighbour (Mark) He who lives by the sword, dies by the sword (Matthew)
18	Islam	Peace be upon you (salaam alaikum) Those who die in the name of Allah will be rewarded in paradise (Qur'an)
19	Judaism	Shalom (peace) The sword comes into the world because of the delay of justice and through injustice (Talmud)
20	Sikhism	When all other methods have failed it is permissible to draw the sword

**QUESTION:** Referring to at least two different religions, compare opposing religious beliefs about war. Refer to religious teachings in your answer (6 marks)

Students may include some of the following points, but all other relevant points must be credited:

Religions teach peace / belief in 'love your neighbour' or similar (golden rules) / ahimsa / First Precept / morally wrong to kill indiscriminately / innocent civilians – men, women and children get killed or injured / wrong to scare people / should work with government (see Romans 13) / terrorism is illegal, religious believers should follow the law / reference to just war and/or holy war criteria that interprets terrorism as wrong, etc.

Buddhism -Buddhists do not believe in any form of violence / believe in ahimsa – respect for life / not hurting others / first moral precept – to abstain from taking life / harming others against the Noble Eightfold Path – Right Action / Golden Rule – 'Hurt not others in ways that you yourself would find hurtful' -Udanavarga 5:18 / terrorism creates bad kamma, etc.

Christianity- Love your neighbour / treat others as you wish to be treated / do not murder / work with the government – 'Let every person be subject to the governing authorities; for there is no authority except from God, and those authorities that exist have been instituted by God' Romans 13:1 / Love one another/love your enemies / 'Do not be overcome by evil, but overcome evil with good' Romans 12: 21, etc.

Hinduism -Hindus believe in the principle of ahimsa – respect for life / not hurting others / example of Gandhi who protested through non-violent resistance / 'One should never do that to another which one regards as injurious to one's own self. This, in brief, is the rule of dharma. Other behaviour is due to selfish desires' -Brihaspati, Mahabharata (Anusasana Parva, Section CXIII, Verse 8) 'This is the sum of duty; do naught onto others what you would not have them do unto you' - Mahabharata 5,1517 (Golden Rule), etc.

Islam-Islam means peace and Muslims should act in a peaceful manner / Surah 3.134: 'Paradise is for ... those who curb their anger and forgive their fellow men.' / Golden Rule principle of 'do unto others as you would have them do unto you' / 'Be kind to your neighbour and you will be a believer; love for the people what you love for yourself and you will be a Muslim.' [Sunan At-Tirmidhi, Book of Asceticism, Number 2305, Sahih] / 'No one of you is a believer until he desires for his brother that which he desires for himself' - Sunnah, etc.

Judaism-The Torah contains several versions of the Golden Rule /Leviticus 19:18 – 'You shall not take vengeance or bear a grudge against any of your people, but you shall love your neighbour as yourself' / 'What is hateful to you, do not do to your fellow man. This is the entire Law; all the rest is commentary' - Talmud, Shabbat 31d, etc.

Sikhism-Sikhs consider acts of terrorism as wrong as innocent people are targeted / people should live in peace and harmony and be tolerant of others beliefs / 'Precious like jewels are the minds of all. To hurt them is not at all good. If thou desirest thy Beloved, then hurt thou not anyone's heart' - Guru Arjan Dev Ji 259, Guru Granth Sahib / 'Cruelty, material attachment, greed and anger are the four rivers of fire.' Falling into them, one is burned. O Nanak! One is saved only by holding tight to good deeds' Guru Granth Sahib 147, etc.

## YEAR 9 – PLC

### How does religion approach crime and punishment?



What do I need to know?			
<b>1.1 Where does right and wrong come from?</b>	☺	☹	☹
To <b>compare</b> and contrast morals and law			
To <b>explain</b> where morality comes from			
To <b>define</b> utilitarianism			
To <b>assess</b> how the utilitarian dilemma arises in real life scenarios			
<b>1.2 Should young people be imprisoned?</b>	☺	☹	☹
To <b>outline</b> the law and legal procedures in accordance with young offenders			
To <b>explain</b> why there are different beliefs about what should happen to young offenders			
To <b>evaluate</b> the effectiveness of imprisoning young offenders			
<b>1.3 What are religious views on prisons?</b>	☺	☹	☹
To <b>outline</b> non-religious views on prisons			
To <b>outline</b> religious views on prisons in both Christianity and Islam			
To <b>assess</b> the effectiveness and morality of prisons			
<b>1.4 What are religious views on capital punishment?</b>	☺	☹	☹
To <b>identify</b> the different types of crime in the UK			
To <b>describe</b> attitudes towards law and order in both Islam and Christianity			
To <b>assess</b> religious and non-religious views towards the death penalty			
<b>1.5 Spring assessment</b>	☺	☹	☹
Year 8 content: Abrahamic religions (5 marks)			
Religion and life (22 marks)			
Religion and conflict (13 marks)			

**Key terms:**

Law

Order

Crime

Utilitarianism

Deterrence

Capital punishment

Young offender

Hate crime

Retribution

Restorative justice

Victim

Perpetrator

Prison reform

Reformation

Assault



## Knowledge Organiser Year 9 Spring 1: Crime and Punishment

Religion and life		
1	What are laws?	The rules which govern a country to keep us safe
2	What is order	The enforcement of rules, e.g. by the police force
3	What is capital punishment?	The death penalty
4	What is community service?	A form of punishment where the criminal has to do a set number of hours work in the community
5	What is a crime?	Breaking the law, this can be against a person, (eg assault) against property (eg arson) or against the state (eg terrorism)
6	What is a deterrence	The aim of punishment, where the punishment puts someone off committing the crime
7	What is a hate crime?	A crime committed because of prejudice – eg homophobic violence
8	What is reformation?	The aim of punishment, helping the other person see how they should behave better – eg restorative justice
9	What is retribution?	The aim of punishment – making up for or compensation for a crime
10	What is a young offender?	A person who is under 18 who has committed a crime
11	What percentage of young offenders were permanently excluded from school?	52%
12	What percent of female prisoners have children under 16 at home	54%
13	When was the prison reform trust established?	1981
14	What does it aim to achieve?	It works to create a more humane and effective prison system and also to help with the reoffending
15	What do religious groups believe about forgiveness?	It helps both victim and perpetrator move on from a crime
Religious teachings		
15	Buddhists	Refrain from harming others Hatred does not cease by hatred, hatred ceases by love
16	Hindus	Corporal punishment can sometimes be used – The Law of Manu states a hand can be removed for theft
17	Christianity	Love thy neighbour (Mark) Do not Kill An eye for an eye
18	Islam	Some crimes are punishable by death Forgiveness is a quality of Allah
19	Judaism	In some cases, the death penalty can be used for murder, for example the Nazi Eichmann was killed for his war crimes after WWII but this is rare
20	Sikhism	The law of Karma – evil actions result in bad Karma and lower rebirth



## YEAR 9 – Philosophy PLC

### Philosophy: How can we prove God exists?

<b>1.1 What is the ‘Philosophy of Religion’?</b>	😊	😐	😞
To <b>outline</b> the roles of Plato and Aristotle in Philosophy			
To <b>explain</b> Plato’s Cave allegory			
To <b>explain</b> Aristotle’s theory of Eudaimonia			
To <b>evaluate</b> which theory is more accurate			
<b>1.2 What is the argument of first cause?</b>	😊	😐	😞
To <b>explain</b> the Cosmological argument			
To <b>outline</b> the role of Aquinas and his argument for the existence of God			
To <b>evaluate</b> the first cause argument			
<b>1.3 Can a watch prove God’s existence?</b>	😊	😐	😞
To <b>explain</b> the design argument (natural theology) according to Aquinas and Paley			
To <b>compare</b> the theories of natural selection and natural theology			
To <b>evaluate</b> the evidence behind each argument			
<b>1.4 Does being moral prove God exists?</b>	😊	😐	😞
To <b>define</b> morality and conscience			
To <b>explain</b> the argument for morality			
<b>Extended writing:</b> You can’t have moral rules without God. How far do you agree?			
<b>1.5 Does free will exist?</b>	😊	😐	😞
To <b>explain</b> the concept of free will			
To <b>assess</b> the concept of free will against that of fate and determinism			
To <b>evaluate</b> the relevance of free will alongside belief in God			
<b>1.6 How did Karl Marx critique religion?</b>	😊	😐	😞
To <b>outline</b> Marx’s criticism of religion using evidence			
To <b>explain</b> the idea of religion as a social construct			
To <b>evaluate</b> Marx’s theory of religion			
<b>1.7 What is Humanism?</b>	😊	😐	😞
To <b>define</b> Humanism and its values			
To <b>define</b> and outline human rights			
To <b>compare</b> the similarities and differences between humanism and human rights			

## Knowledge Organiser RE Spring 2 – Can Philosophy help prove God’s existence?

Key terms		
1	<b>Allegory</b>	A story, poem, or picture that can be interpreted to reveal a hidden meaning, typically a moral or political one.
2	<b>Logic</b>	The study of correct reasoning or good arguments.
3	<b>Cosmological argument</b>	An argument for the existence of God which claims that all things in nature depend on something else for their existence and that the whole cosmos must therefore itself depend on a being which exists independently from it.
4	<b>Natural Theology</b>	The process of deriving knowledge of God from the use of natural human reason. Any appeal to general evidence, the world, and our understanding in theology is <i>natural</i> theology. (eg God’s creative power is found in a beautiful sunset)
5	<b>Natural Selection</b>	The process whereby organisms better adapted to their environment tend to survive and produce more offspring.
6	<b>Morality</b>	What is right or wrong in terms of human behaviour
7	<b>Moral</b>	Concerned with being a good person
8	<b>Free will</b>	The idea that humans are free to make their own choices.
9	<b>Fate</b>	the development of events outside a person's control, regarded as predetermined by a supernatural power.
10	<b>Determinism</b>	The theory that all events, including human action, are ultimately determined by causes regarded as external to the will. Some philosophers have taken determinism to imply that individual human beings have no free will and cannot be held morally responsible for their actions.
Key thinkers		
11	Plato	Allegory of the cave – to consider the nature of belief versus knowledge
12	Aristotle	Aristotle argued that our ultimate goal in life is to reach Eudaimonia (you-die-monia) which is the ultimate happy life
13	Aquinas	First cause – everything has a cause, therefore the first cause must be God
14	Paley	Design argument - the world is too complex to have happened by chance, therefore the designer must be God
15	Darwin	Natural section – organisms have adapted to their environment over time through the process of evolution
16	Kant	Morality - does not prove the existence of God, but makes believing in God a reasonable thing to do
Criticisms of religion		
17	Atheism	The belief that there is no God or supernatural being
18	Humanism	A type of atheism that focuses on human beings and the capacity for self-improvement
19	Marx	Religion is the ‘opium of the people’ Religion is a social construction- God did not create humankind, humankind created God to exercise control and legitimise class positions.
20	Communism	A political belief system based on equality where there is no religious belief system