

Ready to Revise

Year 8



St. George's School
A Church of England Academy

Topics, tips and techniques
To help you get organised and
ready for exams.

Exam Timetable

Subject	Exam Date	Notes
English		
Maths		
Science		
RE		
Geography		
History		
French		
Spanish		
Computing		
Technology		
Art		
Music /Drama		

Preparing for exams

Throughout your time at school, onto further study and university you will have to prepare for exams. Learning the skills needed to be organised and how to revise effectively will help you be successful and fulfil your potential. Below are some tips to get you started:

Start early, revising over a longer time instead of cramming last minute gives your brain the best chance of remembering all you need it to.

- Plan your time using a revision planner. This will help you fit in your revision and allow for some free time.
- Make you sure have lists of what you need to revise for each subject.
- Use the techniques in this booklet to revise. Revision needs to be active simply reading through will not work. Learn good study habits now.
- Find a quiet space to work, switch off distractions such as your phone or the TV. It's better to work uninterrupted for an hour than all evening not concentrating.

Revision Planners

Example Revision Planner

- Once you have a list of topics to revise divide your time up between them.
- Be realistic and give yourself free time and breaks.
- Once you've made your plan stick to it.
- Remember to add a bit of time to test yourself on the bits you've already revised to help you remember.
- The earlier you start revising the easier it will be as you can space it out more.

Week 1	4-5pm	5.-6pm	6-7pm	7-8pm	8-9pm	9-9.30pm9.30pm
Monday	Revise Geog topic 1	Tea time	X Box	RE revise Hinduism	Science Topic 1	Relax
Tuesday	My Maths revision	Tea time	History Topic 1	Break	Practise Maths Paper	
Wednesday		Tea time	Science Topic 2	Football Training	Football Training	Re-Test Science notes
Thursday	History Topic 2	Tea time	My Maths Revision	Break	Science topic 3	Relax
Friday	English revision	Tea time	Night off cinema	Night off cinema	Night off cinema	Re test Geog.

Revision Planners

Use the planners below to organise your time. Divide your revision time between subjects and plan in your free time as well. There are ones for during school weeks, half term and weekends. Aim to revise for 1-2 hr each night on the run up to exams.

Week 1	4-5pm	5.-6pm	6-7pm	7-8pm	8-9pm	9-9.30pm9.30pm
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						

Week 2	4-5pm	5.-6pm	6-7pm	7-8pm	8-9pm	9-9.30pm9.30pm
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						

Half Term	9am-	10.30am-	12pm-	1.30pm-	3pm-	4.30pm-	6pm-	7.30pm-
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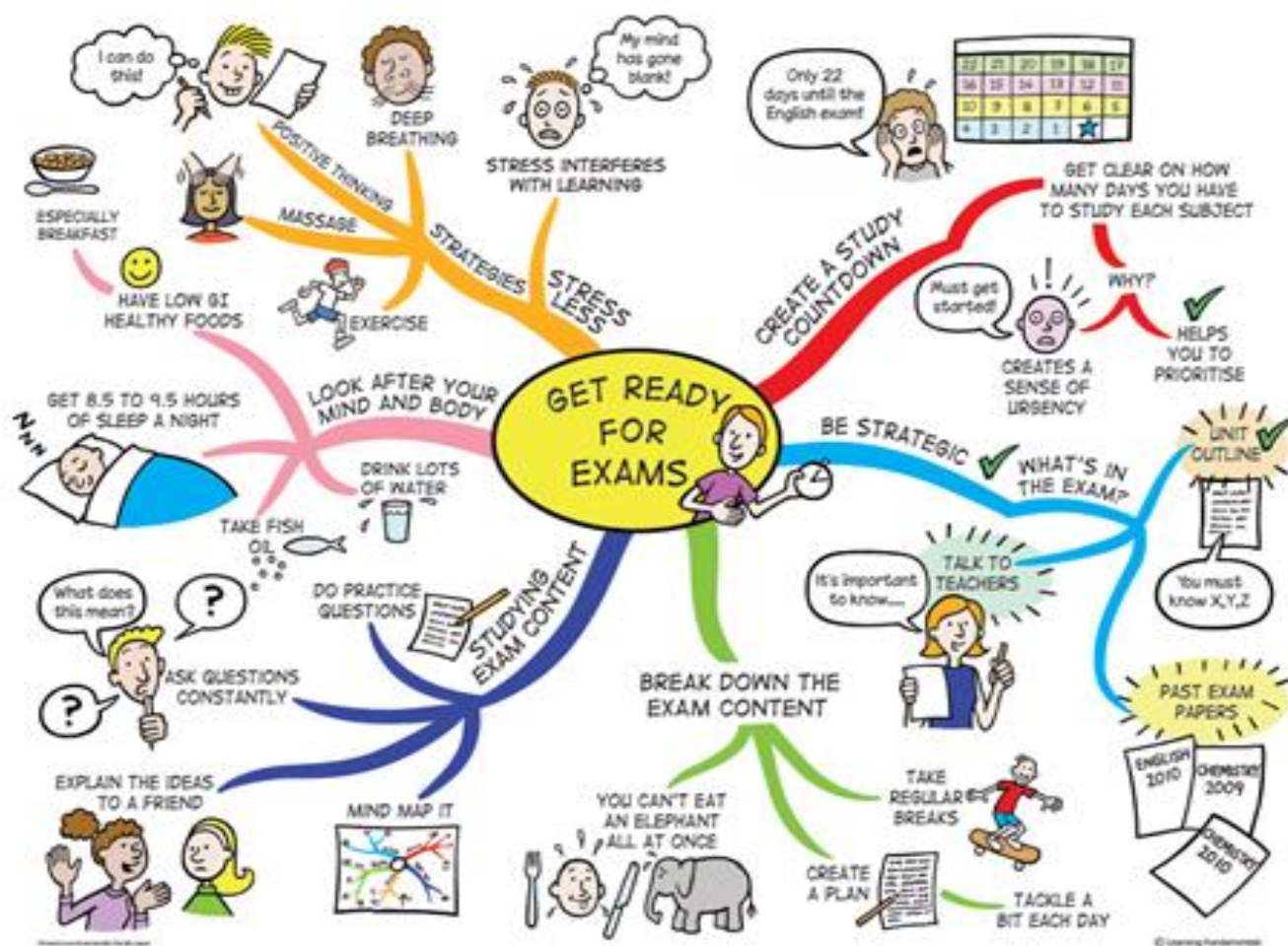
	10.30am	12am	1.30pm	3pm	4.30pm	6pm	7.30pm	9pm
Monday								
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday								
Sunday								

REVISION MAPS

Get yourself a piece of A3 or A4 paper. Using your class notes, re-write the most relevant information. Use brainstorms, tables and information trees to organise your maps. When you have finished them stick them all around your bedroom etc.

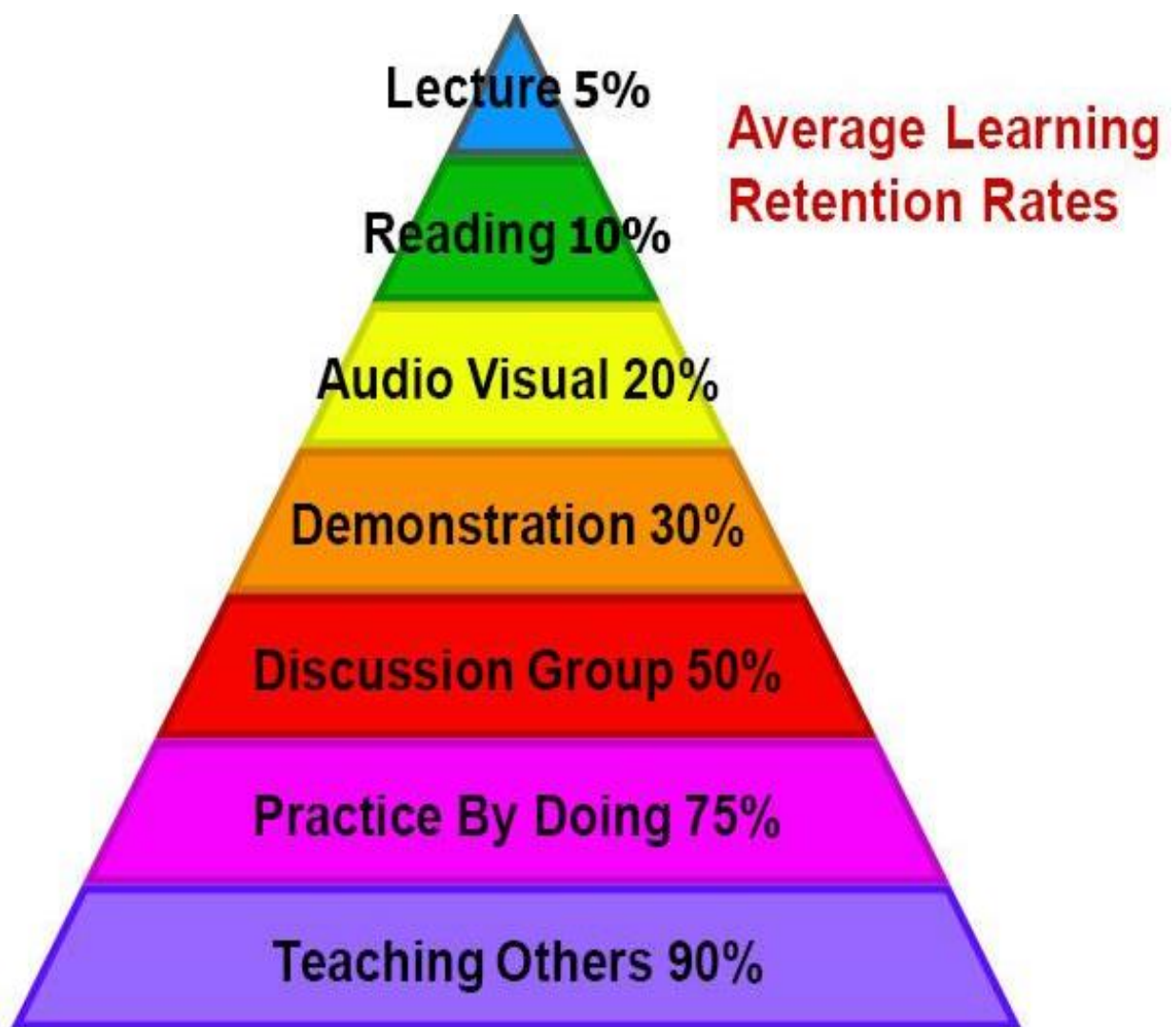
KEY TIPS

Use lots of colour and add diagrams and sketches. These will help you remember better than just plain text.



How We Learn

The pyramid below shows us how researchers think we learn. From it we can see that over time we only remember about 5% of what is just told to us and only 10% of what we read. When learning becomes more active we get better results. If we discuss and talk about what we are learning it goes up to 50%. Once we have learnt something well enough to teach someone else about it, we reach 90%. This shows us that revision needs to be active and discussing, testing and teaching someone else what you've learnt will help you remember more.



REVISION CARDS

Get yourself some pocket sized pieces of card. Using your mind maps, revision books or your class notes, summarise the main points. Use your cards for definitions, key words and lists or groups of information. When you have finished them get a parent or friend to test you – to see how much information you can remember?

KEY TIPS: Use a highlighter pen and keep the information brief – no more than 5 points per card

Once you have made a set of cards test yourself every few days to help you learn the information.

EFFECT OF CATALYSTS

Sometimes a reaction might only work if we use very high temperatures, this can cost a lot of money. However we can speed up reactions by using catalysts.

A catalyst is not used up in the reaction, so it can be used over and over. We use different catalysts for different reactions.

HOW DO WE USE CATALYSTS?

We normally use catalysts in the form of particles, which is like a sponge. This gives them a **LARGE SURFACE AREA**.

EFFECT OF TEMPERATURE

By raising the temperature:

- particles collide more often
- particles collide with more energy

WHY?

When we heat up a substance energy is transferred to its particles, this means they move around faster and there are more chances of successful collisions, that are much more energetic!

ACTIVATION ENERGY

The minimum amount of energy required for a reaction to take place!



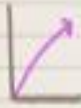
EXOTHERMIC & ENDOTHERMIC REACTIONS

Some reactions transfer energy **FROM** the reacting chemicals **TO** their surroundings. We call these **exothermic** reactions. The energy transferred from the reacting chemicals often heats up the surroundings. This means we can measure a **rise** in temperature.

Some reactions transfer energy **FROM** the surroundings **TO** the reacting chemicals. We call these **endothermic** reactions. They take in energy from their surroundings, these reactions cause a drop in temperature as they happen.

effect of concentration & pressure

Concentration – There are more particles of the reactants moving around in the same volume of a solution. The more 'crowded' together the particles are the more likely they will collide. So the more frequent collisions result in a faster reaction.



Pressure – Increasing the pressure of reacting gases has the same effect, it squashes the gas particles closely together in a given space. This increases the chance that they will collide and react.

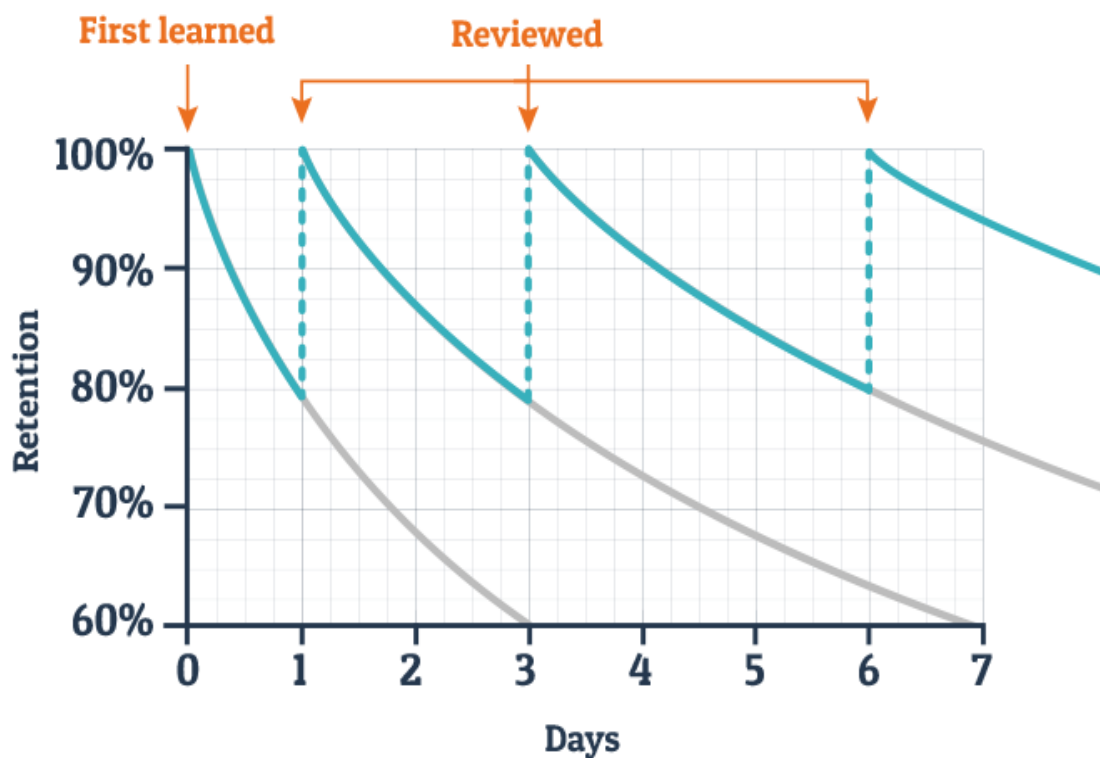


How to beat the 'forgetting Curve'

What the graph below shows us is that when we learn something new, after 3 days, we are lucky if we can remember 60% of what we learnt. To remember more if we review the information on the second day by the day after we will know 80% instead of 60% - handy for an exam! If we'd started working sooner and reviewed again after 6 days our memories then go up to around 90%. Repetition is easy enough – the more frequently we repeat something, the more likely it is to stick. For this reason, one suggestion given to improve memory retention when revising is to review and test yourself regularly. Research has shown that reviewing at regular intervals does increase how much we can remember and that over time, less frequent reviews are needed.

Example: Day 1 make revision cards. Day 2 spend 10 minutes reviewing or testing yourself on them. Day 3 do another quick review / test. Day 6 review & Test again. Then review weekly until your exam.

Typical Forgetting Curve for Newly Learned Information





Descriptive
Writing

Write a description using this image as a stimulus.

Tips:

Use a juicy sentence to hook the reader – a complex sentence to give description.

Put yourself in the image and then describe what is immediately around you and then work outwards.

Change focus-how would this scene change as the hours went by (morning, early afternoon, evening)

Use the 'crafting my writing sheet' to add description, language devices, and structural techniques. Think about colours, the use of light, and the time of year.

Narrative
Writing

Write the **opening** to a story suggested by



Tips:

- Use a juicy sentence to hook the reader – a short sentence to create suspense or a complex sentence to build tension or give description.
- Use and keep it in the past tense. Was / did/ have taken etc.
- Use the 'crafting my writing sheet' to add description, language devices, and structural techniques.

TECHNIQUE

SUBJECT TERMINOLOGY: *metaphor, adjective, adverb, emotive language, ellipsis, paragraph, simple sentence, compound sentence... etc.*

- The writer uses a (*metaphor*) to...
- Priestley uses (*dramatic irony*) in '...' to
- The use of (*ellipsis*) at the end of '...'
- The use of a (*short sentence*) '...' at the beginning of the paragraph...

EVIDENCE

A QUOTE TAKEN FROM THE TEXT TO SUPPORT YOUR ANSWER

- The quote should be copied exactly as it is written in the text
- The quote should be written within quotation marks '...'
- Take the part of your quote that you need – don't waste time writing a whole section out!

A perfect response!

ANALYSIS

ANALYSE THE WORDS USED AND THEIR EFFECT.

Explain what the quote tells us.

Explore the author's effects on the reader / intentions.

What is being obviously (explicitly) stated here?

What is being implied (suggested) here? (through the actions of characters)

Read between the lines; what is being suggested through the author's use of words / structure.

Can we interpret something in more than one way?

How do we as a reader feel about this? (sympathetic, alarmed, sad, concerned)

LINK

LINK TO SOCIAL & HISTORICAL CONTEXT
THEN, LINK THIS BACK TO THE QUESTION.

- How does this story link to the time period when it was written / set?
- What do we learn about groups of people in society through a certain character?
- What does the writer want to draw attention to and why?

Topic: Explorations in Creative Reading and Writing

- How will I be tested?
1 Reading Exam Paper (50 minutes)
- What will be on each paper?
One fiction extract and two questions.
 - Spend 10 minutes reading the extract provided.
 - Question 1 (AO2 Language) is worth 16 marks. Spend 20 minutes on this question(including 5 minutes to plan).
 - Question 2 (AO2 Structure) is worth 16 marks. Spend 20 minutes on this question.

How do I tackle the questions and what is being tested in each?

Question 1 AO2: Explain how writers use language to achieve their purpose and influence readers. Use technical terms to support your analysis of language.

You will be asked to find the important words and phrases in the extract and write about the effects they have. You will need to find examples of language devices the writer chooses to use. You could use the following grid to help you understand what to look for:

PERSONIFICATION / METAPHOR / SIMILE / ALLITERATED SOUND / REPETITION / CONTRAST / ONOMAOPOEIA / ASSONANCE / ADJECTIVES / VERBS / ADVERBS / NOUN PHRASES	Look out for words that could have more than one meaning - what further ideas or images could they have?	Which specific emotions could you be encouraged to feel as a result of the writer's word choice?
Identify particular techniques that have been used within the text. How do they create a specific effect?	Analysing LANGUAGE could be...	Choose verbs, adverbs or adjectives to explode. How does the word create a particular image that you could link to the character or setting?
Consider the language that a character uses in their speech. - is it timid, polite, authoritative, aggressive etc? Something else? What does the language suggest about their character?	Which words help you to identify the tone or mood of the character? How do the words imply how they are feeling and possible reasons why?	Can you find single words which add to the detail given? Can you find adjectives that add extra description or verbs and adverbs that show us about actions?

The question will usually look something like this:

How does the writer use language to create a tense atmosphere?

You could include the writer's choice of:

- Words and phrases
- Language features and techniques
- Sentence forms.

Use the following chart to help you plan your answer:

Language Feature / Device	Quote	Analysis / Connotations
Adjectives	"The <u>dark, sinister</u> passage echoed"	
	"As the paper squirmed in the intense light of the sun stabbed at it".	

marks)

Top Tips

- Use PETAL paragraphs in your answer.

- Aim to write about five quotations from the extract.
- Write about the methods the writer has used and their effect on the reader.
- Use technical terminology to describe the writer's use of language (verbs, adverbs, adjectives etc).

Revision you can do!

Complete the following chart to help you revise the techniques writers often use in fiction extracts.

Language Feature / Device	Definition	Your own example
Verb		
Adjective		
Noun phrase		
Adverb		
Simile		
Metaphor		
Personification		
Contrast		
Semantic Field		
Pathetic Fallacy		
Onomatopoeia		
Repetition		

Look at the following extract and try to use PETAL to write one paragraph about how the writer uses language to create a tense atmosphere.

I screamed for my mother and heard her reply echoing in the far distance. It was towards that cry that I bolted, half charging, half jumping the rails so I caught my foreleg as I tried to clamber over and was stranded there. I was grabbed roughly by the mane and tail and felt a rope tighten around my neck before I was thrown to the ground and held there with a man sitting it seemed on every part of me. I struggled until I was weak, kicking out violently every time I felt them relax, but they were too many and strong for me. I felt the halter slip over my head and tighten around my neck and face. "So you're a fighter, are you?" said my owner, tightening the rope and smiling through gritted teeth. "I like a fighter. But I'll break you one way or the other."

POINT	Use key words from the question to make a statement about the use of language.
EVIDENCE	Give a short quotation from the text to show an example of where the writer has used language effectively and to support the statement you have just made. Think PROVE IT!
TECHNIQUE/TERMINOLOGY	Identify a language technique used within the quote or use subject terminology to zoom into an individual word.
ANALYSIS	Explain the underlying meanings of the words in the quote, making reference to connotations. Explain the effect of the language – does it affect the atmosphere / mood?
LINK	Link back to the question or link to the reader reaction when they read this part of the text. What does it make them think or feel?

Question 2 AO2 Structure: Explain how writers use structure to achieve their purpose and influence readers. Use technical terms to support your analysis of language and structure.

You will be asked to write about the effects of structure on the reader.
Use the following grid to help you understand what to look for:

Narrative Viewpoint Repeated Symbols Sentence Structure and Punctuation Opening and Closing Semantic Field Rhythm Timeframe	How do the sentence structures and lengths or the punctuation reflect the feelings or emotions within the text? How does it change or develop over the course of the text?	Are there groups of words that belong to a particular semantic field? What difference does this make to the atmosphere of the text?
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Does the opted narrative voice enhance the meaning of the text overall? Why do we hear the 'story' from that perspective?	Analysing STRUCTURE could be...	Can you identify a rhythm to the text? Is it all written in a particular style or form?
Analysing how a repeated symbol (motif), idea or theme running through the whole text?	Are there any connections or links between the opening and closing lines? What impact do they have on the reader?	Is the timeline straight forward, or is there a flash back or flash forward? Does the event occur in the distant past, recent past or does it describe an ongoing event? Why would this matter?

The question will usually look something like this:

You now need to think about the whole of the source.

How has the writer structured the text to interest the reader?

You could think about:

- What your writer focuses your attention on at the beginning
- How and why the writer changes this focus as the extract develops
- Any other structural features that interest you.

(16 marks)

Top Tips

- For questions that ask 'how' the writer has done something, you must write about the methods the writer has used and their effect on the reader. In this case, what is the effect of the choices made in structure?
- Look at what each paragraph focuses on and how that is similar or different to the previous / next paragraph.
- Look at the use of weather, setting, characterisation and dialogue.
- Think about the narrative perspective and tense it is written in. Why does the writer do this?
- Make sure your answer includes each of the elements mentioned in the bullet points.
- Use technical terminology when discussing structural and language choices.
- Make sure you mention the overall structure of the text.

Revision you can do!

Look at the following extract and try to use PETAL to start writing a response to the following question: How has the writer structured this extract to hold the interest of the reader?

In the eerie silence of no man's land all that could be heard was the jingle of the harness and snorting of the horses. We picked our way around the craters keeping our line as best we could. Up ahead of us at the top of a gentle sloping hill were the battered remnants of a wood and just below a hideous, rusting roll of barbed wire that stretched out along the horizon as far as the eye could see.

"Wire", I heard Trooper Warren whisper through his teeth. "Oh God, Joey, they said the wire would be gone, they said the guns would deal with the wire. Oh my God!"

We were into a canter now and still there was no sound nor sight of any enemy. The troopers were shouting at an invisible foe, leaning over their horses' necks, their sabres stretched out in front of them. I galvanised myself into a gallop to keep with Tophorn and as I did so, the first terrible shells fell amongst us and the machine guns opened up. The bedlam of battle had begun. All around me men cried and fell to the ground, and horses reared and screamed in agony of fear and pain. The ground erupted on either side of me, throwing horses and riders clear into the air. The shells whined and roared overhead, and every explosion seemed like an earthquake....

Some of the horses ran into wire before they could be stopped, stuck there, their riders trying feverishly to extract them. I saw one trooper dismount deliberately once he saw his horse was caught.

St George's School

Year 8 - Maths

Each year 8 student has been assigned Mathswatch revision homework which covers all content learnt this year. It is important that your child completes the homework to a high standard and watches the linked videos when they need support.

If your child is having any problems gaining access to Mathswatch they must speak to their teacher.

Set 1 & 2

Exploring fractions, decimals and percentages

- express one quantity as a fraction of another, where the fraction is less than 1 or greater than 1
- define percentage as 'number of parts per hundred'
- express one quantity as a percentage of another

Proportional reasoning

- use ratio notation, including reduction to simplest form
- divide a given quantity into two parts in a given part:part or part:whole ratio

Pattern sniffing

- generate terms of a sequence from a term-to-term rule

Measuring space

- use standard units of measure and related concepts (length, area, volume/capacity, mass, time, money, etc.)
- use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate
- change freely between related standard units (e.g. time, length, area, volume/capacity, mass) in numerical contexts
- measure line segments and angles in geometric figures

Investigating angles

- apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles

Calculating fractions, decimals and percentages

- apply the four operations, including formal written methods, to simple fractions (proper and improper), and mixed numbers
- interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively
- compare two quantities using percentages
- solve problems involving percentage change, including percentage increase/decrease

Solving equations and inequalities

- recognise and use relationships between operations, including inverse operations (e.g. cancellation to simplify calculations and expressions)
- solve linear equations in one unknown algebraically

Calculating space

- use standard units of measure and related concepts (length, area, volume/capacity)
- calculate perimeters of 2D shapes
- know and apply formulae to calculate area of triangles, parallelograms, trapezia
- calculate surface area of cuboids
- know and apply formulae to calculate volume of cuboids
- understand and use standard mathematical formulae

Checking, approximating and estimating

- round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures)
- estimate answers; check calculations using approximation and estimation, including answers obtained using technology
- recognise and use relationships between operations, including inverse operations (e.g. cancellation to simplify calculations and expressions)

Mathematical movement

- work with coordinates in all four quadrants
- understand and use lines parallel to the axes, $y = x$ and $y = -x$
- solve geometrical problems on coordinate axes
- identify, describe and construct congruent shapes including on coordinate axes, by considering rotation, reflection and translation
- describe translations as 2D vectors

Presentation of data

- interpret and construct tables, charts and diagrams, including frequency tables, bar charts, pie charts and pictograms for categorical data, vertical line charts for ungrouped discrete numerical data and know their appropriate use

Measuring data

- interpret, analyse and compare the distributions of data sets through appropriate measures of central tendency (median, mean and mode) and spread (range)

Set 3 & 4

Algebraic: using formulae

- Recognise a simple formula written in words
- Interpret the information given in a written formula
- Substitute numbers into a one-step formula written in words
- Substitute numbers into a two-step formula written in words
- Interpret the information that results from substituting into a formula
- Create a one-step formula from given information
- Create a two-step formula from given information
- Use symbols to represent variables in a formula

Fractions, decimals and percentages

- Understand that two fractions can be equivalent
- Identify a common factor of two numbers
- Write a fraction in its lowest terms
- Compare two fractions by considering diagrams
- Compare two fractions by considering equivalent fractions
- Compare two top-heavy fractions
- Understand that a fraction is also a way of representing a division
- Know standard fraction / decimal equivalences (e.g. $\frac{1}{2} = 0.5$, $\frac{1}{4} = 0.25$, $\frac{1}{10} = 0.1$)
- Work out the decimal equivalents of fifths, eighths and tenths
- Know standard fraction / decimal / percentage equivalences (e.g. 10%, 25%, 50%, 75%)
- Work out the percentage equivalents of fifths, eighths and tenths
- Use the equivalence between fractions, decimals and percentages when solving problems

Proportional reasoning

- Identify when a comparison problem can be solved using multiplication
- Identify when a comparison problem can be solved using division
- Identify when a comparison problem requires both division and multiplication
- Find the value of a single item in a comparison problem
- Use the value of a single item to solve a comparison problem
- Understand the meaning of enlargement
- Understand the meaning of scale factor
- Recognise when one shape is an enlargement of another
- Use a scale factor to complete an enlargement
- Find the scale factor for a given enlargement
- Use knowledge of fractions to solve a sharing (or grouping) problem
- Use knowledge of multiples to solve a sharing (or grouping) problem

Sequences

- Use the vocabulary of sequences
- Recognise a linear sequence
- Describe a number sequence
- Find the next term in a linear sequence
- Find a missing term in a linear sequence [
- Generate a linear sequence from its description

Measuring space

- Convert between metric units; e.g. kilometres and centimetres
- Use decimal notation up to three decimal places when converting metric units
- Convert between Imperial units; e.g. feet and inches, pounds and ounces, pints and gallons
- Solve problems involving converting between measures
- State conclusions using the correct notation and units

Investigating angles

- Identify angles that meet at a point
- Identify angles that meet at a point on a line
- Identify vertically opposite angles
- Know that vertically opposite angles are equal
- Use known facts to find missing angles
- Explain reasoning

<i>Calculating fractions, decimals and percentages</i> • Add (subtract) fractions with different denominators • Add (subtract) a mixed number and a fraction, including with different denominators • Add (subtract) mixed numbers, including with different denominators • Multiply a proper fraction by a proper fraction • Divide a proper fraction by a whole number • Simplify the answer to a calculation when appropriate • Multiply U.t by U • Multiply U.th by U • Find 10% of a quantity • Use non-calculator methods to find a percentage of an amount • Use decimal or fraction equivalents to find a percentage of an amount where appropriate • Solve problems involving the use of percentages to make comparisons	<i>Solving equations and inequalities</i> • Solve missing number problems expressed in words • Find a solution to a missing number problem with two unknowns • Find all combinations of two variables that solve a missing number problem with two unknowns • Know the basic rules of algebraic notation • Express missing number problems algebraically • Solve missing number problems expressed algebraically	<i>Calculating space</i> • Recognise that shapes with the same areas can have different perimeters and vice versa • Know that the area of a parallelogram is given by the formula $\text{area} = \text{base} \times \text{height}$ • Know that the area of a triangle is given by the formula $\text{area} = \frac{1}{2} \times \text{base} \times \text{height} = \text{base} \times \text{height} \div 2 = \frac{bh}{2}$ • Know that the volume of a cuboid is given by the formula $\text{volume} = \text{length} \times \text{width} \times \text{height}$ • Calculate the area of a parallelogram (triangle) • Recognise when it is possible to use a formula for the area of a shape • Estimate the volume of cubes and cuboids • Choose appropriate units of volume • Calculate the volume of a cuboid • Recognise when it is possible to use a formula for the volume of a shape • Convert between metric units of area in simple cases • Convert between metric units of volume in simple cases
<i>Checking, approximating and estimating</i> • Approximate any number by rounding to the nearest 1 000 000 • Approximate any number by rounding to a specified degree of accuracy; e.g. nearest 20, 50 • Understand estimating as the process of finding a rough value of an answer or calculation • Use estimation to predict the order of magnitude of the solution to a (decimal) calculation • Check the order of magnitude of the solution to a (decimal) calculation • Estimate multiplication calculations that involve multiplying up to four-digit numbers by a two-digit number • Estimate division and multiplication calculations that involve up to 4 digits	<i>Mathematical movement</i> • Use coordinates to describe the position of a point in all four quadrants • Use coordinates to write the position of a point in all four quadrants • Construct a 2-D coordinate grid (all four quadrants) • Use coordinates to plot the position of a point in any of the four quadrants • Use coordinates to plot a set of points to construct a polygon • Solve problems involving coordinates • Carry out a translation • Carry out a reflection using one of the axes as a mirror line	<i>Presentation of data</i> • Understand that pie charts are used to show proportions • Make statements about proportions shown in a pie charts • Make statements to compare proportions in pie charts • Use additional information to make statements about frequencies in pie charts • Use a table of frequencies to work out the angle for a slice in a pie chart • Construct a pie chart by measuring angles • Identify the scale used on the axes of a graph • Read values from a line graph involving scaling • Use scaling when constructing line graphs • Answer two-step questions about data in line graphs (e.g. 'How much more?')
<i>Measuring data</i> • Understand the meaning of 'average' as a typicality (or location)		

- | | | |
|---|--|--|
| <ul style="list-style-type: none">• Understand the mean as a measure of typicality (or location)• Interpret the mean as a way of levelling the data• Calculate the mean of a set of data• Choose an appropriate approximation when required• Use the mean to find a missing number in a set of data | | |
|---|--|--|

St George's School

Year 8 - Science

Textbook	Oxford KS3 Science Activate 2 ISBN: 978 0 19 839257 6
Revision Guide	CGP KS3 Science Complete Study & Practice ISBN: 978 1 84146 385 8

	Topics	Keywords				
Biology	Digestion	Nutrients Carbohydrate Lipids Protein Vitamins Mineral Fibre Balanced Diet Food Test	Malnourishment Starvation Obese Deficiency Digestive System Villi Stomach Intestine	Enzyme Carbohydrase Protease Lipase Catalyst Bile Recreational Drugs Passive Smoking		
	Adaptation and Inheritance	Competitions Adaptations Interdependence Variation Species Inherited Variation	Environmental Variation Discontinuous Variation Continuous Variation DNA Chromosomes Gene Evolution	Fossil Natural Selection Extinction Biodiversity Endangered Gene Bank		
Biology	Cells	Organism Cell Microscope Observation Nucleus	Cell membrane Mitochondria Respiration Cell wall Vacuole	Chloroplast Cytoplasm Diffusion Concentration	Unicellular Amoeba Euglena Flagellum	
	Muscles skeletal system and Organisation	Multicellular Tissue Organ Organ system Rib cage	Respiratory system Circulatory system Ligaments Tendon Antagonistic	Contract Bone skeleton Support Protect Digestive system	Bone marrow Joint Cartilage Nervous system	
	Reproduction	Adolescence Puberty Sex hormones Sperm Testes Scrotum Semen Sperm duct Urethra Penis Sexual intercourse Egg cell Ovary	Oviduct Ovulation Contraception Condom Contraceptive pill Uterus Cervix Vagina Gamete Fertilisation Cilia Ejaculation Embryo	Implantation Gestation Foetus Placenta Umbilical cord Fluid sac Period Menstrual cycle Petal Sepal Stamen Anther Pollen	Filament Carpel Stigma Style Ovary Ovule Pollination Fertilisation Fruit Seed Germination Seed dispersal	

	Variation	Variation Species Gene Characteristic Continuous	Discontinuous Inherited Environmental		Compete Survive Distribution curve Natural selection Population		Offspring Adapted Extinct Endangered Biodiversity
Chemistry	The Periodic Table	Metals and non-metals Metalloids Physical Properties Chemical Property Acid Rain		Density Group 1 elements Group 7 elements Halogen Group 0 elements		Noble Gases Reactivity Displacement Displace Unreactive	
	Separation techniques	Mixture Pure Impure Solution Dissolve Solute		Solvent Saturated Solution Solubility Soluble Insoluble Filtration		Filtrate Residue Evaporation Distillation Chromatography Chromatogram	
	Metal And non-metals	State Symbol Reactive Reactivity Series Displace Displacement		Thermite Reaction Ore Ceramic Polymer		Natural Polymer Synthetic Polymer Reinforced Concrete Composite Carbon Fibre	
	The Earth	Crust, Mantle, Core, Outer Inner Core Atmosphere Troposphere Sedimentary Igneous Metamorphic Porous Physical weathering		Chemical Weathering Biological weathering Erosion Transport Deposition Compaction Cementation Respiration Combustion		Photosynthesis Carbon store Climate Change Deforestation Radiation Greenhouse effect Greenhouse gas Global warming Recycling	
	States of Matter and Particle Model	Material Particle Mixture Substance Property Solid	Liquid Gas States of matter Melting Change of state Freezing		Melting point Conserve Boiling Boiling point Evaporation		Condensation Sublimation Diffusion Collide Gas pressure
	Elements, atoms and compounds	Element Periodic table	Chemical symbol Atom		Compound Molecule		Chemical formula
	Reactions	Chemical reaction Reversible Catalyst Physical change Reactant Product	Word equation Hazard Risk Fuel Combustion Fossil fuels		Non-renewable Oxidation Thermal decomposition Discrete		Conservation of mass Balanced symbol equations Endothermic Exothermic
	Acids and Alkalis	Acid Alkali Corrosive Concentrated	Dilute Indicator Litmus		Universal indicator Ph scale Neutral		Neutralisation Base Salt

Physics	Electricity and magnetism	Electric Charge Positive Negative Attract Repel Atom - Proton, Electron and Neutron Magnetic field lines Electric field Electromagnetic Conductor	Insulator North Pole South Pole Current Ammeter Amps Voltage Potential Difference Series and Parallel circuits Resistance Ohms		Equations Current (A) = $\frac{\text{Potential difference (V)}}{\text{Resistance } (\Omega)}$ Resistance (Ω) = $\frac{\text{Potential Difference (V)}}{\text{Current (A)}}$
	Energy	Energy Joules Kilojoule Chemical energy Energy store Law of Conservation Kinetic Energy Gravitational energy Potential Elastic Dissipated Temperature Thermal energy Equilibrium Conduction Convection	Convention current Infrared Radiation Renewable energy Non renewable energy Fossil fuel Thermal power station Advantages Disadvantages Power Watts Kilowatts Kilowatt hourwork Simple machine Lever Gear		Equations Power (w) = $\frac{\text{Energy (J)}}{\text{Time (S)}}$
	Motion And Pressure	Speed Metre per second Instantaneous speed Average Speed Relative motion Distance - time Graph Acceleration Gas pressure Compressed	Atmospheric pressure Pressure Pivot Moment Newton metres Law of moments Centre of gravity Centre of mass		Equations Speed (m/s) = $\frac{\text{Distance travelled (m)}}{\text{Time taken (s)}}$ Pressure (M/m ²) = $\frac{\text{Force (N)}}{\text{Area (m}^2\text{)}}$ Moment(Nm) = Force (N) x Distance from pivot (m)
	Forces	Push Pull Contact force Friction Air resistance Gravity Non-contact force Interaction pair Newton meter	Newton Deform Compress Stretch Reaction Extension Tension Elastic limit Hookes law	Linear Lubrication Water resistance Drag force Streamlined Magnetic force Electrostatic force Field Weight	Mass Kilogram Gravitational field strength Balanced Equilibrium Unbalanced Driving force Resistive force

	Energy changes and transfers	Gravitational Chemical Kinetic Elastic Magnetic Electrostatic Thermal	Transfer Mechanical Heating Electrical Light Sound	Stored Energy = force x Distance Thermal equilibrium Conduction Convection Radiation	Insulators Conservation of energy Created Destroyed Waste useful
	Sound	Oscillation Vibration Energy Undulation Amplitude Frequency Wavelength Peak Crest Trough Transverse Longitudinal Compression	Rarefaction Reflection Incident wave Reflected wave Superpose Vibration Medium Vacuum Speed of sound Speed of light Pitch Loudness	Microphone Oscilloscope Hertz Infrasound Ultrasound Ear Pinna Auditory canal Eardrum Outer ear Ossicle Middle ear	Amplify Oval window Cochlea Auditory nerve Inner ear Decibel Diaphragm Amplifier Echo Reverberation Transmitter Receiver
	Magnets	Charges Flow Positive Negative Electrons Electric field	Electric force Opposite Attract Same Repel	Magnetic field Bar magnet North South Pole Field lines Compass	Current Solenoid Coil of wire Electromagnet Motor

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Year 8 - RE

	Half Term 1	Half Term 2
Autumn Term	Who was Jesus? Jesus - Who was he? Birth, Baptism, temptations, his friends	What would be the impact on the world if Easter did not happen? Parables, miracles, teachings, death, resurrection, future for Christians
Spring Term	Where do people go to find affirmation of faith? The Truth; Buddhism; Sikhism; Judaism and the Truth; Pilgrimage	What does it mean to be a good steward? Being a Christian, Rites of passage, the sacraments, Vocation, Mission, Missionaries & monasticism, aid agencies, Christian charities, Fair Trade
Summer Term	Sikhism What are the main beliefs in Sikhism? Symbols and beliefs. Guru Nanak. The Khalsa. The 5 Ks. The holy book and places of worship.	Hinduism What are the main beliefs of Hinduism? The Beginnings of Hinduism. Symbols & Beliefs God in many forms. Brahman rites of passage. Divisions The caste system; .Gandhi Hindu's today

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Year 8 - Geography

		Topics	Keywords
Progress Period 1	Tectonic Hazards	You should be able to define and categorise hazards.	Hazard Risk Mantle Crust Tectonic Plates Boundary/Margin Magma Lava Convection Current Vent Crater Tsunami Cause Effect (Primary/Secondary) Response (Long/Short)
		You should be able to locate and describe the location of tectonic events.	
		You should be able to describe the features of the Earth's structure, including the tectonic plates.	
		You should be able to define what a volcano is and label the key features of a volcano.	
		You should be able to explain the processes which lead to the formation of a composite volcano.	
		You should be able to explain why people live in hazard areas.	
		You should be able to explain the difference between a cause, effect and response.	
		You will be able to describe and explain the impacts of a Tsunami, including the cause, effects and response. (CASE STUDY: Indian Ocean)	
Progress Period 2	Development	You can define the term development and can explain the terms HIC and LIC.	Poverty Death Rate Sanitation Infant Mortality Life Expectancy Birth Rate Literacy Rate
		You can identify and describe differences between LICs and HICs using development measures.	
		You should be able to describe the challenges of living in a remote rural area (countryside) in an LIC or a urban slum in an LIC.	
		You should be able to describe strategies (ways) used to improve living conditions in LICs.	
Progress Period 3	Managing Energy	You should be able to identify different energy sources.	Renewable Social Resource Non-Renewable Economic Management Greenhouse Effect Environmental Sustainable Climate Change Consumption Energy Security
		You should be able to explain the cause of Global Warming (Greenhouse Effect) and the impacts linked to Global Warming.	
		You can define the term carbon footprint and identify and explain actions which influence carbon footprints.	
		You can explain the advantages & disadvantages of non-renewable and renewable resources when used to create electricity. Including the Greenhouse Effect.	
		You can define the term sustainability and explain the benefits of sustainability on a variety of scales.	
		Pupils can explain strategies and initiatives within the UK aimed at creating sustainable futures. E.g. BEDzed	
Progress Period 4	Globalisation	You should be able to describe and explain a variety of geographical ideas relating to Globalisation.	Globalisation Transportation Containers Exploitation Profit Multi- National Hypothesis Sequence of Investigation Methodology Data Analysis Conclusion
		You need to be able to explain the steps of a geographical enquiry process, create a hypothesis and justify a hypothesis.	
		You need to be able to plan data collection activities and show awareness of the risks involved in certain data collection activities.	
		You need to be able to collect a variety of data and distinguish between primary and secondary sources of data.	
		You should be able to explain why companies locate their factories in LICs.	

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Year 8 - History

Topic	Knowledge	Key Words
Worst Jobs	Examples of worst jobs including tanner, fuller, mule scavenger and tosher Criteria for worst jobs including boring, tiring, disgusting, low pay, dangerous	Tanner Fuller Muller scavenger Tosher
King John	Causes of John's problems, such as Richard I spending England's money on the Crusades - Problems faced by John: - lack of money, - arguments with the Pope and church, - loss of land in France - Consequences of John's failures: - war with the barons - Forces to sign the Magna Carta in 1215	Excommunication Barons Freeman Magna Carta Crusades
Elizabeth	Problems faced by Elizabeth - Unmarried, female and no heir - The threat from Mary, Queen of Scots and the Catholics leading to Mary's execution in 1587 - Threat of invasion by the Spanish Armada in 1588 - Use of paintings as propaganda The Spanish Armada - English tactics, including fire ships - Spanish failures, including the use of large ships and with a poor leader in Medina Sidonia - The weather/good luck, the 'Protestant wind' that blew the Spanish ships around Scotland.	Illegitimate Catholic Protestant Propaganda Armada Tactics Fire ship
Civil War	Causes - Religious, such as marrying Henrietta Maria, a French Catholic princess in 1625 - Economic, such as raising the Ship Tax in 1637 - Political, such as the Scots invasion of England in 1640 in protest at the introduction of a prayer book Consequences - A Civil war broke out between the Royalists and parliamentarians in 1642. - The Parliamentarians led by Oliver Cromwell defeated the Royalists in 1648 - In 1649 Charles was executed as a traitor - Cromwell ruled England, Scotland & Ireland as Lord Protector until his death in 1658. - Cromwell's rule was known as the interregnum. - Cromwell was a Puritan and banned Christmas, gambling, pubs and the theatre. - On Cromwell's death he was eventually replaced by Charles I's son Charles II. - The Stuart dynasty was eventually replaced by the German Hanoverians in 1714. - The power of British monarchs was almost gone.	
Slavery	The Slave Trade Over the period of the Atlantic Slave Trade, from approximately 1526 to 1867, some 12.5 million slaves had been shipped from Africa. 10.7 million had arrived in the Americas <i>The Middle Passage was dangerous and miserable for African slaves.</i> <i>Many Slavers worked on a principle of 'tight packing'. Slaves were packed close together, and men were chained for long periods. On average each slave was allowed a space 130cm wide.</i>	Cavaliers Parliament Parliamentarians Interregnum Royalist Lord Protector Puritan Ship tax

	▪ <i>British Ships usually carried 230 slaves, French ships carried 400.</i> ▪ <i>About 12% of those who embarked did not survive the voyage.</i> ▪ <i>Slave ship owners could make 50% profit without leaving England.</i> ▪ <i>1 in every 10 voyages saw a slave rebellion.</i> ▪ <i>In 1839 53 slaves successfully took over a ship, La Amistad, killed most of the crew except the navigator so they could return to Africa. The Navigator tricked them and navigated the boat to New York. The slaves were imprisoned until court proceedings to see who owned the slaves.</i> Life as a Slave ▪ <i>When slaves reached America they were sold in auctions.</i> ▪ Men around the age of 25 were the most valuable and received the highest price. ▪ Average life expectancy of a slave was 26. ▪ Conditions were poor, slaves often suffered from Tropical diseases such as leprosy, dysentery and yaws. ▪ 40% of all Africans who arrived to work on plantations died in the first year. ▪ Half of all slave children died in the first year of their life. ▪ Slaves were considered chattel (items of property) owned by their master. ▪ Jobs included sowing, hoeing, harvesting, cotton picking and processing, ditch digging, spreading fertilisers, care of livestock [animals], butchering, preserving meats and domestic duties. Abolition ▪ Slavery was abolished in 1807 throughout the British Empire. ▪ William Wilberforce has been seen as the hero behind abolition as he fought to get Parliament to pass laws against the Slave Trade for 18 years. ▪ Thomas Clarkson was a founder of the Society for the Abolition of the Slave Trade. It was this organisation which persuaded William Wilberforce to campaign in Parliament against slavery. ▪ Olaudah Equiano was an African slave who bought his freedom. His life story was published in 1789, and became a powerful argument for the abolition of slavery. ▪ Slavery was not completely abolished until 1865 in America.	Monarch Civil war Economic Political Religious New Model Army
Slavery	Domestic System ▪ Working in the home: carding, spinning and weaving ▪ New machines, including the flying shuttle, spinning jenny and Crompton's Mule. Working Conditions ▪ Conditions for workers and children in the mills, including the dangers ▪ The life of pauper apprentices ▪ The jobs carried out in the mills Public Health ▪ Main diseases including cholera, dysentery, typhus and typhoid ▪ Government action to solve the public health problems including the Health Acts of 1848 and 1875, and the building of a sewerage system	Abolition Abolitionist Emancipation Middle Passage Overseer Plantation Racism Rebellion Slavers Triangular trade
The Industrial Revolution	Domestic System ▪ Working in the home: carding, spinning and weaving ▪ New machines, including the flying shuttle, spinning jenny and Crompton's Mule. Working Conditions	Domestic Spinning Weaving Factory

	- Conditions for workers and children in the mills, including the dangers - The life of pauper apprentices - The jobs carried out in the mills Public Health - Main diseases including cholera, dysentery, typhus and typhoid - Government action to solve the public health problems including the Health Acts of 1848 and 1875, and the building of a sewerage system	Pauper Apprentice Typhoid Cholera Dysentery Typhus Public health Sewerage
Causes of WWI	<u>Long Term Causes</u> - Militarism: The main powers had been building up their armies and navies EG. Britain built modern steam powered dreadnaught ship which were copied by the Germans - Alliances: The great powers belonged to two alliances: the Triple Entente—Britain, France and Russia; the Central Powers—Germany and Austria-Hungary. - Russia was in a separate alliance with Serbia - Imperialism: Germany wanted to build an empire like Britain's, Britain wanted to protect its empire from Germany, Austria-Hungary was afraid its empire would break up because of nationalists such as those in Bosnia, the Czech lands and Slovakia - Nationalism: Serbia wanted all Serbs to be in a greater Serbia so threatened the Austria-Hungarian Empire <u>Short Term Causes</u> - The heir to the Austrian-Hungarian Empire was assassinated on 28th July 1914 by Gavrilo Princip - Princip belonged to a Serbian nationalist group called the Black Hand Gang. - Austria-Hungary blamed the Serbian government for the assassination of Franz Ferdinand and attacked Serbia leading to Russia declaring war on Austria-Hungary. - Germany declared war on Russia but attacked their ally France first through Belgium using the Schlieffen Plan - Britain declared war on Germany to protect Belgium, having signed the Treaty of London in 1839. <u>Consequences</u> - The Great War (or World War I) started on 4th August 1914 and lasted until 11th November 1918 <u>Interpretations</u> - Serbia to blame for allowing the Black Hand Gang to assassinate Franz Ferdinand - Austria-Hungary to blame for using the assassination as an excuse for attacking Serbia - Germany to blame for using the Russian declaration of war on Austria-Hungary as an excuse for attacking France, through Belgium.	Heir Militarism Alliances Central Powers Triple Entente Imperialism Nationalism Schlieffen Plan
Trenches	<u>Causes: why the war was fought in trenches</u> - The failure of the Schlieffen Plan: - The Belgian army slowed down the German army - The British declared war to support the Belgian, which the Germans did not expect. - The Russian army mobilised quicker than expected. - New technology e.g. machine guns and barbed wire prevent the use of traditional strategies such as the use of cavalry <u>Problems</u> - Machine Guns - Barbed wire - Artillery bombardment - Trench foot	Mobilised Cavalry Machine guns Barbed wire Trench foot Tactics Versailles Czechoslovakia

	<u>Interpretations</u> ▪ ‘Lions led by Donkeys’—it has been argued that the military leaders were either stupid because they couldn’t design new tactics to fight the war or cruel because they kept putting their men in danger by sending them over the top. <u>Consequences</u> ▪ Casualties: 9 million ▪ The Treaty of Versailles—Germany was blamed for WWI and heavily punished. ▪ the creation of new countries in Europe e.g. Poland, Czechoslovakia, Austria and Hungary, and Yugoslavia (which included Serbia). ▪ World War II: the First World War led to Hitler attempting to get revenge for losing.	
Nazi Germany	Reasons for Hitler’s rise to power: ▪ The Treaty of Versailles of 1919 ▪ Hyperinflation in 1923 ▪ The Wall St Crash of 1929 and the rise in unemployment to 6million ▪ The Reichstag Fire and Enabling Act ▪ The Night of the Long Knives Life in Nazi Germany ▪ Building autobahns/motorways ▪ Reducing unemployment ▪ Use of concentration camps for political enemies such as the Communists ▪ Pride in Germany ▪ But, fear of arrest by the gestapo Opposition to the Nazis ▪ Communists and socialists ▪ Religious groups ▪ July Bomb Plot	Versailles Hyperinflation Unemployment Reichstag Parliament Autobahn Communist Socialist Concentration camp

KS3 French

In French we have started the new Allez course which prepares students for the high standards required with the new GCSE. Students will mainly be tested on their last 2 modules, to ensure these have been fully understood.

Students will be offered access to detailed revision sheets prior to the exams

Year 8 :	Daily life in francophone countries • Talk about where you live • Daily routine • What you did yesterday • Plans to help others • Talk about Africa •	J'habite, je vais habiter, au centre Je me lave, je m'habille, je me couche Je suis parti, je suis allé, cependant Je vais participer à, organiser une vente La nourriture, le conflit, la paix
	France and other countries • Comparing France and Britain • Describing a country • Famous French people • Francophone cartoon character • Transport and new technology	Une monarchie, un président Les fleuves, les montagnes, les villes Auteur, ingénieur, scientifique La BD, un personnage historique, imaginaire Pilote, chercheur, conducteur

St George's School

Year 8 - Spanish

Term	Topics	Keywords
Term 1	Introducing yourself • Age and numbers 1-15 • Birthday and months of the year • Items in my schoolbag	Me llamo _____ Tengo 12 años Mi cumpleaños es el ____ de _____. En mi mochila, tengo
Term 2	In school • School subjects • What you do in lessons • Talking about teachers • Giving opinions and reasons • Talking about food	Estudio español, matemáticas, francés, dibujo En clase, hablo, escucho, leo, escribo (Me gusta) el profesor de matemáticas (porque) es divertido, simpático, aburrido, antipático
Term 3	My family • Talking about family members • Talking about pets • Describing your appearance • Describing your personality	En mi familia, hay ____ personas Mi madre, mi padre, mi hermano, mi hermana Tengo un perro, un gato, una tortuga Soy alto, guapo, bajo, feo Tengo los ojos azules, marrones, verdes
Term 4	At home • Describing where you live • Talking about your house • Describing your bedroom • Daily Routine • Talking about activities you do	Vivo en una ciudad que se llama.... Mi casa es bastante grande/moderna/vieja En mi dormitorio, hay una cama.... Hago mis deberes, veo la televisión, me levanto, me visto, me lavo los dientes.
Term 5	Free time • What you do in your spare time • Talking about what sports you do • Using infinitives • Talking about future plans	En mi tiempo libre, mando mensajes, hablo con mis amigos, voy al cine, salgo con amigos. Me gusta ir al cine, escuchar música, ver la televisión.
Term 6	Town and City • Saying what your town is like • Directions • Weather • Time • Using two tenses together	En mi ciudad, hay un museo, una torre, un polideportivo, una plaza de toros Hace buen tiempo, llueve, nieva, hace frío, hace calor

St George's School

Year 8 – Food Technology

Key stage 3 Food Technology Exam

There will be a **theory** and a **practical** exam.

Students will be given a brief to investigate. They will produce four design ideas, one of which they will cook in the practical exam.

Year 8 – Flapjack

Students will be assessed demonstrating the following areas in a practical exam:

- Personal hygiene & food safety
- Independently following a recipe
- Time keeping
- Practical skills and working methods
- Presentation and portion control

Students will be assessed in the following areas in a theory exam:

- Understanding the key nutrients, the function of nutrients, food sources of nutrients
- Healthy eating plate
- Understanding food safety and personal hygiene
- Creative design ideas that meet the brief