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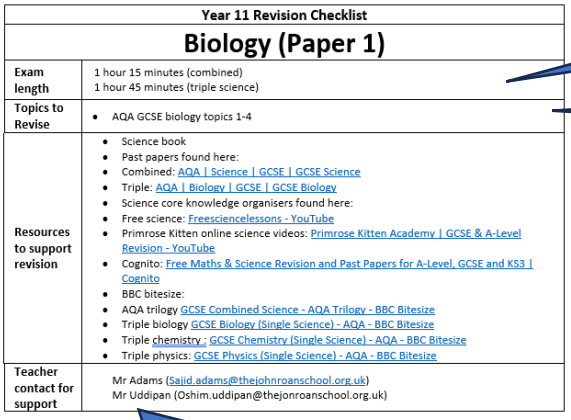
Year 11 GCSE exams revision checklist

This booklet is designed to help you organise your revision by helping you space out your revision and ensure you are revising all the key topics for each of your subjects. It is vital you use this book as a checklist to support your revision for each of your subjects, this is not a revision guide.

How do you use this book?



Year 11 Revision Checklist	
Biology (Paper 1)	
Exam length	1 hour 15 minutes (combined) 1 hour 45 minutes (triple science)
Topics to Revise	• AQA GCSE biology topics 1-4
Resources to support revision	• Science book • Past papers found here: • Combined: AQA | Science | GCSE | GCSE Science • Triple: AQA | Biology | GCSE | GCSE Biology • Science core knowledge organisers found here: • Free science: Freesciencelessons - YouTube • Primrose Kitten online science videos: Primrose Kitten Academy | GCSE & A-Level Revision - YouTube • Cognito: Free Maths & Science Revision and Past Papers for A-Level, GCSE and KS3 | Cognito • BBC bitesize: • AQA trilogy GCSE Combined Science - AQA Trilogy - BBC Bitesize • Triple biology GCSE Biology (Single Science) - AQA - BBC Bitesize • Triple chemistry : GCSE Chemistry (Single Science) - AQA - BBC Bitesize • Triple physics: GCSE Physics (Single Science) - AQA - BBC Bitesize
Teacher contact for support	Mr Adams (Sajid.adams@thejohnroanschool.org.uk) Mr Uddipan (Oshim.uddipan@thejonroanschool.org.uk)

Revision checklists

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
B1 cell structure and function	Be able to label both prokaryotes and eukaryotes.				
	Be able to describe the function of all the alleles in plant and animal cells				
	RP: Be able to write a method for using a light microscope and preparing a slide to look at				
	Be able to calculate the magnification of a cell (including changing units)				

For each subject you will see a revision checklist, broken down by either topics or exams. For each key point on the checklist you have the ability to check off when you have planned it into your revision time, date when you complete the revision and review. This allows you to ensure you are spacing your practice to get the most out of your revision and support your long term memory (more on this on the next few pages!)

Revision timetables

At the back of this book you will find a revision planner for each week. Every Monday during form we will plan out what revision will be done on each day to support your organisation!

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The most effective revision strategies!

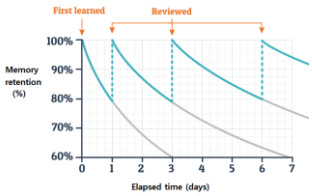
1. Active Recall

Why? Our brains remember things better when we actively retrieve information rather than just passively reading.

How to do it:

1. **Use flashcards** (e.g., write a question on one side and the answer on the other).
2. **Read, cover, write and check** – read a section of notes/ revision guide, cover them, and write down what you can recall from memory, remember to check your work against your notes/revision guide. This can also be making a mind map, linking everything together, then flipping it and seeing if you can recall the whole mind map.
3. **Teach someone else** – explain a topic to a friend or even to yourself out loud.

2. Spaced Repetition

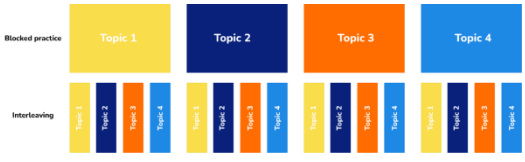


Why? Repeating information at **increasing intervals** over time strengthens memory retention.

How to do it:

- **Use apps like Anki or Quizlet** that use spaced repetition algorithms.
- **Review topics in cycles** – revisit each topic multiple times before the exam.
- **Date your revision**: When you carry out some revision, date it so you know when you carried it out, this then allows you to plan out when you need to go back over a topic.

3. Interleaving



Why? Mixing different but related subjects **prevents forgetting** and **improves long-term retention**.

How to do it:

- **Don't revise one subject for hours** – mix it up! (e.g., study Biology for 30 minutes, then switch to Chemistry).
- **Mix similar topics within a subject** – for example, instead of studying only photosynthesis, switch between photosynthesis and respiration to strengthen connections between them.

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Revision Technique	How do I use it?
Look-Cover-Write Check  I can practice my spelling words. Look Say Cover Write Check Look at the word. Say the word. Cover the word. Write the word. Check the word. ***Useful for:*** *remembering key dates, names, facts, places, terms*	1. **Look:** Read the material or word carefully, ensuring you see and understand it. 2. **Cover:** Cover the material with a piece of paper, hand, or your planner. 3. **Write:** Write the information down from memory, trying to recall the exact words, phrases, or details. 4. **Check:** Reveal the original material and compare your written version to it, noting any errors or omissions.
Flashcards ***Useful for:***  *remembering key facts and longer explanations*	1. **Question:** Write a question related to your revision topic on one side. 2. **Answer:** Write the answer on the other. 3. **Test:** Test yourself and each other!
Mind maps  ***Useful for:*** *summarising a whole revision topic and showing how the parts fit together!*	1. Place a question / topic at the centre 2. Build all of the information related to the topic around this, with lines to show how the information links together. 3. You may like to use different colours for different themes / areas of the topic
Practice Questions  ***Useful for:*** *checking how effective your revision has been, and highlighting any areas you need to return to!*	Go back through your class work, revision resources, or use online revision sites to help develop practice questions for you to answer. **If you were able to answer easily, your revision is working! If things are more challenging, make sure you revisit the techniques above to secure the learning in your long term memory.**

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Year 11 Revision Checklist	
English Language (Paper 1)	
Exam length	1 hour 45 minutes
Topics to Revise	What is fiction? How to analyse language; how to analyse structure; how to evaluate a statement; how to write an effective descriptive piece.
Resources to support revision	• English exercise book • Past papers in English Sharepoint
Teacher contact for support	Ms Tiplady (jacqueline.tiplady@thejohnroanschool.org.uk)

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
<u>Question 1</u> **Read lines … to … List four things you learn about x.** 4 marks	☐ Timing – spend 5 minutes ☐ Box the lines ☐ Answer all parts of the question by ticking the boxes. ☐ Re-read the correct section of the text, and check your answers carefully.				
<u>Question 2</u> **Read lines … to …. How does the writer use language to describe x?** 8 marks	☐ Timing – spend 10 minutes ☐ Write specifically about the focus of the question. ☐ Write about the effects of at least 3 quotes. ☐ Zoom in on the evidence and explain: What do we associate with the key word? What are the connotations? ☐ If there is a method such as metaphor, simile, punctuation, explain what effect it has: how does it make the reader feel? What atmosphere does it create? ☐ Write 2-3 clear paragraphs with WHAT-HOW-WHY. ☐ Check over your work.				
<u>Question 3</u> **How has the writer**	☐ Timing – spend 10 minutes ☐ Identify what is focussed on at the beginning, and explain how it makes the reader feel.				

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structured the text to interest you as a reader? 8 marks	☐ Identify a shift in focus later in the extract, and explain how it makes the reader fee. ☐ Identify how the focus shifts at the end, and how it makes the reader feel. ☐ Include short pieces of evidence. ☐ Explain the specific effect of each moment. Does it create: tension, suspense, anticipation, a sense of hope, a sense of neglect, a sense of abandonment, delight, horror, worry, a trusting relationship with the character? ☐ Write 2-3 paragraphs with WHAT-HOW-WHY. ☐ Structural features you could write about: dialogue, shift in focus, character, flashback, setting, internal thoughts, perspective, external setting, internal setting.				
<u>Question 4</u> **To what extent do you agree with the statement?** 20 marks	☐ Timing – spend 20 minutes ☐ Box the lines ☐ Identify the two parts of the statement and explain your judgement/opinion - why you agree. ☐ Explain any alternative viewpoints. ☐ Give clear evidence to support your opinion. ☐ Zoom in on the evidence and explain: What do we associate with the key word? What are the connotations? ☐ If there is a method such as metaphor, simile, punctuation, explain what effect it has: how does it make the reader feel? What atmosphere does it create, and how does this prove your opinion? ☐ Write 3-4 clear paragraphs with WHAT-HOW-WHY. ☐ Check over your work.				
<u>Question 5</u> **Write a description or narrative.** 40 marks [AO5 Content and Organisation 24 marks + AO6 Technical Accuracy 16 marks]	☐ Timing – spend 45 minutes ☐ Decide if you will write a description or a narrative. ☐ Plan your DROP, SHIFT, ZOOM, LINK structure. ☐ Write in clear paragraphs. ☐ Use absolutely perfect capital letters and full stops. ☐ GOMASSIVE ☐ Have sentences of different lengths. ☐ Use a variety of sentence starters: adverbs 'ly,' gerunds 'ing,' similes 'like…,' or adverbial phrases 'in the distance…' ☐ Use a range of punctuation : ; , - ' ☐ Vary your vocabulary. ☐ Include a motif. ☐ Check over your work.				

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Year 11 Revision Checklist	
English Language (Paper 2)	
Exam length	1 hour 45 minutes
Topics to Revise	What is non-fiction writing? How to infer; how to analyse structure; how to compare perspectives; how to write a persuasive argument.
Resources to support revision	• English exercise book • Past papers in English Sharepoint
Teacher contact for support	Ms Tiplady (jacqueline.tiplady@thejohnroanschool.org.uk)

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
<u>Question 1</u> **True or False** 4 marks	☐ Timing – spend 5 minutes ☐ Box the lines ☐ Put T, F, ?, on the left side to establish your level of certainty ☐ Once you are sure what the 4 correct statements are, shade the boxes on the right.				
<u>Question 2</u> **Inference** 8 marks	☐ Timing – spend 10 minutes ☐ Read both sources ☐ Highlight the focus of the question ☐ Identify 4 short quotations which describe the focus of the question. 2 in Source A and 2 in Source B ☐ Briefly annotate your quotations with what they show you ☐ Write 2 paragraphs using SQIL				
<u>Question 3</u> **Language Analysis** 12 marks	☐ Timing – spend 15 minutes ☐ Highlight the focus of the question ☐ Re-read the source with the question in mind. ☐ Find 3 or more quotations to support your statement. Try to find patterns or explain how the topic progresses and change.				

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	☐ Annotate their effects. Do they create tension, mystery, hope, hopelessness, wonder, amazement, fear? ☐ Step 5: Write three paragraphs analysing your quotations by zooming in on the effects of words, imagery or techniques used.				
Question 4 **Comparison** 16 marks	☐ Timing – spend 20 minutes ☐ Highlight the focus of the question. ☐ Re- read both sources again. On the right, write 3-4 words summarising each paragraph. On the left, write the mood and tones presented in that section. ☐ Highlight evidence which presents the writer's attitude towards that topic. At least 2 quotes from each source. Annotate what it shows. Underline key words and explain their connotations. ☐ Write your comparative paragraphs. Aim for at least 2 paragraphs with 1-2 quotations from each source. Include: key words, impact on the reader, methods etc.				
Question 5 **Writing an article, speech or letter** 40 marks [AO5 Content and Organisation 24 marks + AO6 Technical Accuracy 16 marks]	☐ Timing – spend 45 minutes ☐ Underline the key words in the question ☐ Identify FAP (Form, audience, purpose) ☐ Decide whether to agree or disagree ☐ Mind map your ideas, follow the structure below: ○ Introduction – state your point of view and what you want to see change ○ Problems – explain what will happen if the problem continues ○ Solution – explain any solutions you have to fix the problem ○ Conclusion – reiterate your point of view and call to action ○ Step 5: Write your article, letter or speech using the PERSUADERR techniques				

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Year 11 Revision Checklist	
English Literature (Paper 1)	
Exam length	1 hour 45 minutes
Topics to Revise	*Macbeth* & *A Christmas Carol*
Resources to support revision	English exercise book Past papers in English Sharepoint
Teacher contact for support	Ms Tiplady (jacqueline.tiplady@thejohnroanschool.org.uk)

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
Macbeth	<u>Core Knowledge</u> ☐ Context ☐ Big ideas – characters ☐ Big ideas – themes ☐ Key Quotes ☐ Language and structure				
A Christmas Carol	<u>Core Knowledge</u> ☐ Context ☐ Big ideas – characters ☐ Big ideas – themes ☐ Key Quotes ☐ Language and structure				
Macbeth AND *A Christmas Carol*	<u>Key Skills</u> ☐ How to write a successful essay (with an extract) ☐ How to express ideas about the text and the question clearly (AO1) ☐ How to use evidence effectively (AO1) ☐ How to analyse the writer's language (AO2) ☐ How to link context to your ideas (AO3)				

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English Literature (Paper 2)

Exam length	2 hours 15 minutes
Topics to Revise	*An Inspector Calls*, Power and Conflict Poetry, Unseen Poetry
Resources to support revision	• English exercise book • Poetry revision guide given out in English lesson • Past papers in English Sharepoint
Teacher contact for support	Ms Tiplady (jacqueline.tiplady@thejohnroanschool.org.uk)

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
An Inspector Calls	<u>Core Knowledge</u> ☐ Context ☐ Big ideas – characters ☐ Big ideas – themes ☐ Key Quotes ☐ Language and structure <u>Key Skills</u> ☐ How to write a successful essay (without an extract) ☐ How to express ideas about the text and the question clearly (AO1) ☐ How to use evidence effectively (AO1) ☐ How to analyse the writer's language (AO2) ☐ How to link context to your ideas (AO3)				
Power and Conflict Poetry	<u>Core Knowledge for every poem:</u> ☐ **Themes and message**: Which themes are explored in the poem? What is the poet's main message about each theme? ☐ **Context**: How does the poem's context connect with its main message?				

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	☐ **Quotes & Language**: What are 2 key quotes from the poem? How does the poet use language (key words or techniques) and what is the impact? ☐ **Structure**: What is a significant structural feature of this poem? What is its impact? ☐ **Comparison**: Which other poems are about a similar theme? Which have a similar main message? <u>Key Skills:</u> ☐ How to write a successful comparative essay. ☐ How to compare ideas between two poems, and relate them to the question (AO1) ☐ How to use evidence effectively (AO1) ☐ How to analyse the writer's language (AO2) ☐ How to link context to your ideas (AO3)				
Unseen Poetry	<u>Core Knowledge:</u> ☐ Steps for understanding an unseen poem ☐ What will Question 1 ask you to do? ☐ What will Question 2 ask you to do? <u>Key Skills:</u> ☐ How to write a successful essay about a single poem. (Q1) ☐ How to use evidence effectively (Q1 - AO1) ☐ How to analyse the writer's language (Q1 - AO2) ☐ How to compare <u>methods</u> between two poems (Q2 - AO2)				

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Maths – Foundation

Exam length	Edexcel GCSE Mathematics 3 papers – 1hr30min each • Any topic can appear on any paper • Paper 1 is non-calculator • Papers 2 and 3 allow a calculator
Topics to Revise	There are over 100 topics on the Maths exam. Focus on the topics based on your grade on the last mock e.g. if you got a Grade 2, start with the Grade 2, Grade 3 topics and work up to Grade 5
Resources to support revision	1. For a list of topics arranged by Grade, visit: https://www.mathsgenie.co.uk/gcse.php This has videos, questions and solutions 2. For past GCSE papers, with answers and video work-throughs, visit: https://www.mathsgenie.co.uk/papers.php
Teacher contact for support	Dr Joomun (rushda.joomun@thejohnroanschool.org.uk)

Grade 1 Topics

Topic		Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice on …
1.1	Addition and Subtraction					
1.2	Multiplication and Division					
1.3	Time					
1.4	Metric Conversions					
1.5	Writing, Simplifying and Ordering Fractions					
1.6	Place Value					
1.7	Rounding					
1.8	Negative Numbers					
1.9		Powers and Roots				

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1.10	BIDMAS				
1.11	Factors and Multiples				
1.12	Coordinates				
1.13	Pictograms				

Grade 2 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
2.1	Calculation Problems				
2.2	Using a Calculator				
2.3	Systematic Listing				
2.4	Fractions of an Amount				
2.5	Fractions, Decimals and Percentages				
2.6	Simplifying Algebra				
2.7	Writing an Expression				
2.8	Function Machines				
2.9	Solving One Step Equations				
2.10	Angles				
2.11	Area and Perimeter				
2.12	Probability				
2.13	Frequency Polygons				
2.14	Averages				
2.15	Bar Charts				
2.16	Stem and Leaf				
2.17	Pie Charts				

Grade 3 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
3.1	Error Intervals				
3.2	Fractions				
3.3	Estimating				
3.4	Writing and Simplifying Ratio				
3.5	Ratio				
3.6	Proportion				
3.7	Percentages				

3.8	Percentage Change				
3.9	Exchange Rates				
3.10	Conversions and Units				
3.11	Scale Drawings				
3.12	Best Buy Questions				
3.13	Substitution				
3.14	Solving Equations				
3.15	Drawing Linear Graphs				
3.16	Area and Circumference of Circles				
3.17	Transformations				
3.18	Area of Compound Shapes				
3.19	Frequency Trees				
3.20	Two Way Tables				

Grade 4 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
4.1	Compound Interest and Depreciation				
4.2	Indices				
4.3	Prime Factors, HCF and LCM				
4.4	Real Life and Distance Time Graphs				
4.5	Inequalities				
4.6	Forming and Solving Equations				
4.7	Sequences (Nth Term)				
4.8	Expanding and Factorising				
4.9	Pythagoras				
4.10	Angles in Parallel Lines				
4.11	Angles in Polygons				
4.12	Surface Area				
4.13	Volume of a Prism				
4.14	Cylinders				
4.15	Loci and Construction				
4.16	Bearings				
4.17	Plans and Elevations				
4.18	Averages from Frequency Tables				
4.19	Probability				
4.20	Scatter Graphs				

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Grade 5 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
5.1	Writing a Ratio as a Fraction or Linear Function				
5.2	Direct and Inverse Proportion				
5.3	Reverse Percentages				
5.4	Standard Form				
5.5	Speed and Density				
5.6	Changing the Subject of a Formula				
5.7	Expanding and Factorising Quadratics				
5.8	Solving Quadratics				
5.9	Drawing Quadratic Graphs				
5.10	Drawing Other Graphs: Cubic/Reciprocal				
5.11	Simultaneous Equations				
5.12	Solving Simultaneous Equations Graphically				
5.13	Midpoint of a Line Segment				
5.14	Gradient of a Line				
5.15	Equation of a Line				
5.16	Spheres and Cones				
5.17	Sector Areas and Arc Lengths				
5.18	Similar Shapes (Lengths)				
5.19	SOHCAHTOA (Trigonometry)				
5.20	Exact trig values				
5.21	Vectors				
5.22	Probability Trees				
5.23	Venn Diagrams				

How to do a maths past paper

Step 1. **Complete the past paper** under exam conditions

- Do not use a calculator for Paper 1
- Ensure you have a pen, ruler, pencil and protractor beforehand
- Give yourself 1hr to 1hr30min in a quiet space to complete the paper properly

Step 2. Use your green pen to **mark your solutions** and give yourself marks out of 80

- The written and video solutions can be found next to each paper: https://www.mathsgenie.co.uk/papers.php

Step 3. Complete the **reflection sheet** issued with the paper

- Identify one topic you need to revise. Either find the topic on Sparx or on MathsGenie and revise it by watching a video, doing questions and marking your answers

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Maths – Higher (Sets 1 only)

Exam length	Edexcel GCSE Mathematics 3 papers – 1hr30min each • Any topic can appear on any paper • Paper 1 is non-calculator • Papers 2 and 3 allow a calculator
Topics to Revise	There are over 100 topics on the Maths exam. Focus on the topics based on your grade on the last mock e.g. if you got a Grade 6, start with the Grade 6, Grade 7 topics and work up to Grade 8/9
Resources to support revision	3. For a list of topics arranged by Grade, visit: https://www.mathsgenie.co.uk/gcse.php This has videos, questions and solutions 4. For past GCSE papers, with answers and video work-throughs, visit: https://www.mathsgenie.co.uk/papers.php
Teacher contact for support	Dr Joomun (rushda.joomun@thejohnroanschool.org.uk)

Grade 5 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
5.1	Writing a Ratio as a Fraction or Linear Function				
5.2	Direct and Inverse Proportion				
5.3	Reverse Percentages				
5.4	Standard Form				
5.5	Speed and Density				
5.6	Changing the Subject of a Formula				
5.7	Expanding and Factorising Quadratics				
5.8	Solving Quadratics				
5.9	Drawing Quadratic Graphs				
5.10	Drawing Other Graphs: Cubic/Reciprocal				
5.11	Simultaneous Equations				
5.12	Solving Simultaneous Equations Graphically				
5.13	Midpoint of a Line Segment				
5.14	Gradient of a Line				
5.15	Equation of a Line				
5.16	Spheres and Cones				
5.17	Sector Areas and Arc Lengths				
5.18	Similar Shapes (Lengths)				
5.19	SOHCAHTOA (Trigonometry)				

5.20	Exact trig values				
5.21	Vectors				
5.22	Probability Trees				
5.23	Venn Diagrams				

Grade 6 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
6.1	Recurring Decimals to Fractions				
6.2	Fractional and Negative Indices				
6.3	The Product Rule for Counting				
6.4	Repeated Percentage Change				
6.5	Expanding Triple Brackets				
6.6	Parallel and Perpendicular Lines				
6.7	Inequalities on Graphs				
6.8	Similar Shapes (Area and Volume)				
6.9	Enlarging with Negative Scale Factors				
6.10	Circle Theorems				
6.11	Cumulative Frequency				
6.12	Box Plots				
6.13	Capture Recapture				

Grade 7 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
7.1	Surds				
7.2	Bounds				
7.3	Direct and Inverse Proportion				
7.4	Quadratic Formula				
7.5	Factorising Harder Quadratics				
7.6	Algebraic Fractions				
7.7	Rearranging Harder Formulae				
7.8	Trigonometric and Exponential Graphs				
7.9	Inverse and Composite Functions				
7.10	Iteration				
7.11	Finding the Area of Any Triangle				
7.12	The Sine Rule				
7.13	The Cosine Rule				
7.14	Congruent Triangles				
7.15	3d Pythagoras and Trigonometry				

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7.16	Histograms				
7.17	Conditional Probability				

Grade 8/9 Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
8.1	Quadratic Simultaneous Equations				
8.2	Transforming Graphs y=f(x)				
8.3	Proof				
8.4	Completing the Square				
8.5	The Nth Term of a Quadratic Sequence				
8.6	Quadratic Inequalities				
8.7	Velocity Time Graphs				
8.8	Proof of the Circle Theorems				
8.9	Perpendicular Lines and the equation of a tangent				
8.10	Vectors Proof Questions				
8.11	Probability Equation Questions				

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- Either find the topic on Sparx or on MathsGenie and revise it by watching a video, doing questions and marking your answers

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Year 11 Revision Checklist	
Combined science HT & FT, Triple Science	
Exam length	**Combined science HT & FT** Paper 1 & paper 2 biology: 1 hour and 45 minutes each Paper 1 & paper 2 chemistry: 1 hour and 45 minutes each Paper 1 & paper 2 physics: 1 hour and 45 minutes each **Triple Science** Paper 1 & paper 2 biology: 1 hour and 15 minutes each Paper 1 & paper 2 chemistry: 1 hour and 15 minutes each Paper 1 & paper 2 physics: 1 hour and 15 minutes each
Topics to Revise	**Combined science HT & FT** Paper 1 biology: B1-B4, Paper 2 biology: B5-B7 Paper 1 chemistry: C1-C5, Paper 2 chemistry: C6-C10 Paper 1 Physics: P1-P4, Paper 2 physics: P5-P7 **Triple Science** Paper 1 biology: B1-B4, Paper 2 biology: B5-B7 Paper 1 chemistry: C1-C5, Paper 2 chemistry: C6-C10 Paper 1 Physics: P1-P4, Paper 2 physics: P5-P8
Resources to support revision	Sparx science: Sparx Science - Home Paper 1 revision booklet: Paper 1 Revision Booklets Paper 2 revision booklet: Paper 2 Revision Booklet Oak academy video lessons: Curriculum - Curriculum Cognito online videos and exam questions Free Maths & Science Revision and Past Papers for A-Level, GCSE and KS3 | Cognito Free science videos on YouTube Freesciencelessons - YouTube
Teacher contact for support.	Mr Uddipan: oshim.uddipan@thejohnroanschool.org.uk Ms Butler: phoebe.butler@thejohnroanschool.org.uk Mr Adams: sajid.adams@thejohnroanschool.org.uk Mr Hinds: roy.hinde@thejohnroanschool.org.uk Mr Antrobus: james.antrobus@thejohnroanschool.org.uk Ms Ahmed: intissar.ahmed@thejohnroanschool.org.uk Mr Abdul-Khaliq: khalid.abdul-khaliq@thejohnroanschool.org.uk Ms Confino: meenal.confino@thejohnroanschool.org.uk

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Topic	Biology Paper 1 Checklist	Planned into revision	Revised on …	Revisited on …	Independent practice
B1 Cells and Microscopy	Label the major features of animal, plant and bacterial cells				
	Describe differences between animal and plant cells				
	Describe the functions of all the parts – e.g nucleus, ribosomes etc				
	Use Magnification=Image/Actual to calculate size of cells or magnification				
	Use prefixes centi, milli, micro and nano and change numbers between these units				
	Describe what is meant by 'differentiation' or specialisation				
	Relate a cells specialised features to its function				
	Describe how microscopy has developed over time and give advantages of the electron microscope over the light microscope				
	Describe the stages in the cell cycle				
	Recognise & define mitosis and give examples of it may occur				
	Define the term 'stem cells'				
	Name sources of stem cells and describe their use – adult, embryo and meristem				
	Triple ONLY Evaluate the use of stem cells in medical research and treatments				
	Triple ONLY Describe and explain the stages in the culture of microbes for investigation				
	Triple ONLY Describe the reproduction of bacteria				
	Triple ONLY Interpret results from investigations on antiseptics/antibiotics, including calculating colony sizes or clear zones using πr^2 and expressing answers in standard form				
B1 Transport	Describe diffusion and the factors that can affect the rate				
	Describe how organs and surfaces are specialised for effective diffusion – lungs, gills in fish, roots and leaves in plants				

	Define the term osmosis and give examples of where it happens				
	Define the term 'Active Transport' and explain why it is necessary				
B2 Organisation	Name the organs in the digestive system				
	Use the 'lock and key' model to explain how enzymes work				
	Name the three digestive enzymes, what they act on and what the products are				
	Explain why digestion of food is necessary				
	Explain the functions of bile and hydrochloric acid in digestion				
	Describe the chemical tests for sugar, starch, fat and protein and their positive results				
	Label a diagram of the major structures of the heart				
	Label a diagram of the major structures of the lungs				
	Describe how the heart rate is normally regulated and the use of artificial pacemakers				
	Describe the features of arteries, veins and capillaries				
	Name and describe the functions of the four components of blood				
	Describe the path blood takes around the body and the importance of valves in this				
	Describe what 'coronary heart disease' is, describe and evaluate its treatment options				
	Describe some of the diseases linked with lifestyle factors				
	Describe the causes of cancer and what is meant by 'benign' and 'malignant' tumours				
	Name the different plant tissues and describe how they are adapted for their function				
	Explain how transpiration happens and describe factors that can affect the rate				
	Explain what is meant by 'translocation'				
B3	Define the term 'pathogen'				
	Describe the spread, symptoms and treatments of viral diseases such as measles, HIV and Tobacco Mosaic Virus (TMV)				

	Describe the spread, symptoms and treatment of the bacterial infections Salmonella and Gonorrhoea				
	Describe the symptoms, spread and treatment of the fungal disease Rose black spot				
	Describe the spread of malaria and measures to prevent its transmission				
	Describe the main physical barriers humans have to infection				
	Describe how white cells fight pathogens that do get into the body				
B3 Infection & Response	Explain how vaccinations prevent disease				
	Explain the use of antibiotics and other medicines in treating diseases				
	Describe the origins of many drugs and how new drugs are developed, including the use of placebos				
	Triple ONLY Explain the development of and uses for monoclonal antibodies, including in pregnancy testing and detection of disease				
	Triple ONLY Describe and explain the main defence mechanisms plants have to prevent disease				
	Triple ONLY Describe ways of detecting and diagnosing plant diseases				
	Triple ONLY Describe the effects on plants of a lack of nitrate and magnesium in the soil				
B4 Bioenergetics	Describe the processes of aerobic and anaerobic respiration in animals, plants and fungi and represent them using word equations				
	Compare aerobic with anaerobic respiration				
	Describe and explain the changes in the body during exercise				
	Explain why anaerobic respiration cannot be maintained for long periods				
	Describe the process of photosynthesis and represent it using a word equation				
	Describe how the rate of photosynthesis can be measured and how it can be affected				
	HT & TRIPLE ONLY Apply the inverse square law to calculate light intensity				
	Explain what is meant by a limiting factor				
	Triple ONLY Define metabolism and give examples of the reactions this includes				

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Topic	Biology Paper 2 Checklist	Planned into revision …	Revised on …	Revisited on …	Independent practice
B5 Homeostasis & Response	Define homeostasis and explain why it is important				
	Give examples of conditions that are maintained in the body				
	Name the different types of receptor humans have and describe how they react to a stimulus				
	Know what the words receptor, sensory neurone, relay neurone, motor neurone, effector and synapse refer to and use them to describe a response				
	Describe how nerve impulses travel and how they cross the synapse				
	Explain what a reflex is and be able to label a diagram of a reflex arc				
	Describe how the parts of the nervous system are adapted for their function				
	Explain the importance of reflexes				
	Describe a method to test reaction time, identifying variables and processing data obtained				
	TRIPLE ONLY Describe the functions of the cortex, cerebellum and medulla and label these on a diagram of the brain				
	TRIPLE ONLY Explain some of the difficulties involved in studying brain function and treating brain disease				
	TRIPLE ONLY Label the parts of the eye and describe their functions				
	TRIPLE ONLY Describe how the eye adapts to focus on near and far objects				
	TRIPLE ONLY Describe common defects of the sight and how they are corrected (short sightedness and long sightedness)				
	TRIPLE ONLY Explain how body temperature is monitored and controlled, including vasoconstriction and vasodilation				
	Describe the structure and function of the endocrine system, identifying major endocrine glands in the human body				
	Describe what a hormone is and explain the main differences between hormonal and nervous responses				
	HT & TRIPLE ONLY Define negative feedback				

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	HT & TRIPLE ONLY Describe the roles of adrenaline and thryroxine in the body and explain how thyroxine levels are controlled by negative feedback				
	Describe how blood sugar varies and is normally controlled by insulin				
	HT & TRIPLE ONLY Describe the role of glucagon in maintaining blood sugar levels, including negative feedback				
	Describe and compare Type 1 and Type 2 diabetes in terms of problems in the control of sugar and treatments				
	TRIPLE ONLY Describe how the kidneys work to produce urine and reabsorb all sugar and the right quantities of ions & water				
	TRIPLE ONLY Explain the role of the brain and pituitary gland in maintaining water levels of the body				
	TRIPLE ONLY Describe and evaluate treatment for kidney failure – dialysis and kidney transplants				
	Name and describe the effects of the hormones involved in controlling the female menstrual cycle				
	Describe the interaction of FSH, LH, oestrogen and progesterone in the menstrual cycle and interpret graphs of hormone levels				
	Describe and evaluate forms of contraception (pill, injection, condom, IUD, spermidical agents, sterilisation, diaphragm etc)				
	Describe the use of fertility treatments & IVF and evaluate them in terms of cost, ethics, medical/health, success rates, stress on the parents,				
	TRIPLE ONLY Explain how auxins control plant growth and explain ways of investigating factors affecting plant growth				
	TRIPLE ONLY Describe commercial uses of auxins, gibberelins and ethene				
B6 Inheritance, Variation & Evolution	Explain what is meant by the terms 'sexual' and 'asexual' reproduction and the differences between them				
	Describe the main stages of the production of gametes by meiosis				
	Explain the differences between mitosis and meiosis in terms of daughter cells				
	Describe the structure of DNA and define the term genome				
	TRIPLE ONLY Explain how DNA codes for proteins				
	TRIPLE ONLY Describe a simple model of protein synthesis and folding to produce unique shapes				
	TRIPLE ONLY Define mutations and describe how they may affect the protein made				
	Describe the importance of understanding the genome				
	Define key genetic terms – allele, heterozygous, homozygous, dominant, recessive, genotype and phenotype				

	Complete punnett squares to show the possibilities for offspring of a genetic cross and interpret them using direct proportion and ratios				
	Describe the chromosome make up of men and women and use genetic crosses to show how gender is inherited				
	Use and interpret family tree diagrams				
	HT & TRIPLE ONLY Construct genetic diagrams and use theory of probability to interpret results				
	Describe the inheritance of the diseases polydactyly and cystic fibrosis				
	Evaluate the use of embryo screening to prevent these and other inherited diseases				
	Explain why Darwin's theory of natural selection was not well accepted at first and contrast his theory with that of Lamarck				
	TRIPLE ONLY Describe the work of Mendel and interpret data about his results				
	Define the reasons for variation within a species and across species				
	Explain the role of mutations in variation				
	Describe the theory of evolution				
	Apply the theory of natural selection to explain how organisms have changed over time				
	Explain how different species arise over time				
	TRIPLE ONLY Describe the work of Wallace in developing our understanding of evolution by natural selection				
	Describe 'selective breeding' and give examples of where it is used				
	Give the disadvantages of selective breeding in terms of the gene pool				
	Describe how plants, animals and bacteria can be genetically engineered and evaluate this – e.g +/- of genetically modified foods, production of insulin by GM bacteria				
	HT & TRIPLE ONLY Describe the main steps in genetic engineering of crops and bacteria				
	TRIPLE ONLY Describe the processes involved in cloning techniques – tissue culture, cuttings, embryo transplantation and adult cell cloning.				
	Describe the evidence for evolution – fossils, antibiotic resistant bacteria etc				
	Explain what fossils show u, how they were formed and why the fossil record is incomplete				
	Interpret evolutionary trees and explain why organisms may go extinct				

	Explain how antibiotic resistant bacteria form and how we can try to prevent this				
	Describe Linnaeus' classification system				
	Describe the more recent 'three-domain' system				
B7 Ecology	Describe and explain adaptations for animals and plants – especially ones that live in extreme conditions – deserts, poles etc				
	Explain what 'extremophiles' are and give examples				
	Define biotic and abiotic factors and explain how they can affect the organisms in a community				
	Describe the flow of energy through food chains				
	TIRPLE ONLY Describe trophic levels and represent them using pyramids of biomass				
	TRIPLE ONLY Calculate the efficiency of energy transfer within a food chain				
	TRIPLE ONLY Explain and evaluate ways of improving the efficiency of energy transfers in food production				
	TRIPLE ONLY Describe some uses of biotechnology – GM crops, production of insulin by GM bacteria, quorn				
	Describe methods of determining abundance of organisms within a habitat – using quadrats.				
	Name the processes involved in the cycling of carbon and water and describe the importance of this				
	TRIPLE ONLY Describe the importance of decay and factors that affect the rate of decay				
	TRIPLE ONLY Describe practical ways of investigating the effect of temperature on the rate of decay				
	Explain how waste, pollution, deforestation and global warming have impacted biodiversity				
	Describe some of the biological consequences of global warming				
	Describe measures to restore biodiversity and evaluate them				

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Topic	Chemistry Paper 1 Checklist	Planned into revision timetable	Revised on ...	Revisited on ...	Independent practice
Atomic Structure & the Periodic Table	Describe the structure of an atom and calculate numbers of protons, neutrons and electrons given a periodic table				
	Describe the development of the nuclear model of the atom from earlier models – e.g the plum pudding etc and how Rutherford's work contributed to this				
	Describe how mixtures can be separated using filtration, evaporation, distillation and chromatography				
	Know the size of an atom and the nucleus				
	Explain what is meant by an isotope and calculate the Atomic mass of an element given the percentage abundance of its isotopes				
	Draw the electron configuration for any of the first 20 elements in the periodic table.				
	Describe the layout of the modern periodic table and some of the steps in its development, including Mendeleev's work				
	Describe how atoms become ions and represent this using diagrams				
	Explain why group 0 do not form ions and describe the properties of group 0 elements				
	Describe the properties of the Group 1 metals and their reactions with oxygen and water				
	Describe and explain the trend in Group 1 reactivity down the group				
	Describe the properties of group 7 elements.				
	Describe and explain the trend in reactivity of group 7 down the group				
	Interpret practical observations to prove reactivity in group 7 – ie displacement of less reactive halogens				
C2	Describe the particle arrangement in solids, liquids and gases and explain how changes of state occur				
	Describe the formation of ionic bonds between metal and non-metal atoms and represent this in diagrams and models				
	Write and interpret formula for compounds				
	Use dot and cross diagrams to show the transfer of electrons in ionic bonding				

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C2 Bonding & Properties	Describe the properties of ionic compounds				
	Represent covalent bonds using dot and cross diagrams				
	Describe and explain the properties of simple and giant covalent substances				
	Describe the structure and bonding of carbon in the forms of diamond, graphite and fullerenes and relate their properties to the bonding				
	Represent the bonding in polymers using diagrams and explain why most polymers are solids at room temperature				
	Describe the bonding in metals and relate the properties of metals to the bonding				
	Define an alloy and explain why they are stronger than pure metals				
	TRIPLE ONLY Define nanoparticles and explain why their properties are different than the substance in bulk				
	TRIPLE ONLY Describe some concerns about the use of nanoparticles				
C3 Quantitative Chemistry	Explain what is meant by 'conservation of mass' and apply it to chemical equations				
	Calculate relative formula mass				
	Calculate uncertainty in measurements				
	HT & TRIPLE ONLY Know that a mole represents 6.02 x 10^{23} atoms or molecules and is equal to the atomic or formula mass in grams				
	HT & TRIPLE ONLY Use the equation Mass = Mr x moles to work out number of moles, mass or formula mass, given the other two				
	HT & TRIPLE ONLY Calculate the mass of reactants and products in a symbol equation and use these to predict the masses of reactants needed or products expected				
	HT & TRIPLE ONLY Use moles to balance symbol equations				
	HT ONLY & TRIPLE Explain what is meant by a 'limiting reactant' and use information to say which reactant is limiting a given reaction				
	Calculate the mass of a given solid in a specified volume of a solution of a given concentration				
	TRIPLE ONLY Calculate percentage yield and suggest why it may not be 100%				
	TRIPLE ONLY Use molar masses to balance symbol equations				
	TRIPLE ONLY Calculate the concentration of unknown acids/alkalis using titration				

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	TRIPLE ONLY Calculate volumes of gases given moles or vice versa				
	TRIPLE ONLY Calculate atom economy and explain the importance of this				
C4 Chemical Change	Define the terms oxidation and reduction in terms of reactions with oxygen				
	Identify which substances have been oxidised or reduced in a given equation in terms of gain or loss of oxygen				
	Evaluate metal extraction methods given appropriate information				
	Describe the reactions of K, Na, Li, Ca, Mg, Zn, Fe and Cu with dilute acids and water				
	Derive the reactivity series for metals given information about displacement reactions				
	Explain reactivity in terms of a metal's tendency to form ions				
	HT ONLY Identify which species has been oxidised and which has been reduced in terms of gain or loss of electrons in given equations				
	HT ONLY Write half equations for oxidation and reduction				
	Describe the formation of a soluble salt by neutralising acids with metal oxides or metal carbonates				
	Describe the reactions of acids and alkalis and the use of indicators				
	HT & TRIPLE ONLY Explain the meaning of the terms 'strong' and 'weak' acids and make orders of magnitude calculations in terms of pH				
	Explain the process of electrolysis in terms of movement of ions to the electrodes and the loss or gain of electrons				
	Describe the extraction of Aluminium from its oxide using electrolysis				
	Predict the products from the electrolysis of solutions and explain why hydrogen is often given off at the cathode				
	HT & TRIPLE ONLY Write ionic equations for the reactions at the electrodes				
C5 Energy Changes	Describe and recognise exothermic and endothermic reactions				
	Describe some of the variables that can affect temperature change in endothermic and exothermic reactions				
	Draw and label energy level diagrams for endothermic & exothermic reactions				
	HT & TRIPLE Use bond energies to determine whether a reaction will be endothermic or exothermic				
	TRIPLE ONLY Describe how a fuel cell works and evaluate hydrogen as a fuel				

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Topic	Chemistry Paper 2 Checklist	Planned into revision	Revised on ...	Revisited on ...	Independent practice
C6 Rates & Extent of Chemical Reactions	Describe ways of measuring rates of reaction – e.g mass/volume of product in a specific amount of time				
	Use collision theory to explain why rates of reaction slow down as they progress				
	Describe and explain patterns in graphs showing rates of reaction				
	Calculate rates of reaction given data or graphs, using change/time, (**HT & TRIPLE ONLY) including drawing tangents to a curve**				
	Describe and explain how reactions are affected by temperature, concentration, surface area, pressure (gaseous reactions) & catalysts				
	Explain what is meant by a reversible reaction and know how to represent them in equations				
	Define the terms 'closed system', 'yield' and 'dynamic equilibrium'				
	Predict the energy change in a reversible reaction given information about one of the reactions				
	Describe factors that can affect the position of equilibrium				
	HT & TRIPLE Apply Chatelier's principle to any given reaction to predict the effects on yield of changing temperature, pressure or concentration of reactants				
	HT & TRIPLE ONLY Predict optimum yield conditions given some information about a reversible reaction				
	HT & TRIPLE ONLY Explain why the conditions chosen industrially are often 'compromise' conditions				
C7 Organic Chemistry	Define a hydrocarbon				
	Describe the structure of crude oil				
	Describe uses of crude oil – fuels, feedstock for petrochemicals etc				
	Name and draw the first five alkanes				
	Describe how the properties of alkanes change with increasing chain length				
	Describe how the different chain lengths are separated using fractional distillation				
	Describe complete and incomplete combustion of alkanes and represent and recognise equations showing this				

	Explain why cracking is necessary				
	Describe different methods for cracking				
	State the products of cracking				
	HT & TRIPLE ONLY Represent cracking using equations				
	Describe the test for alkenes and its positive result				
	TRIPLE ONLY Describe the reactions of alkenes – addition reactions with hydrogen and halogens and hydration to form alcohols				
	TRIPLE ONLY Represent reactions of alkenes using diagrams and formulae				
	TRIPLE ONLY Describe addition polymerisation and represent it using diagrams				
	TRIPLE ONLY Give some uses of alcohols				
	TRIPLE ONLY Name and draw the first 4 alcohols				
	TRIPLE ONLY Describe physical properties of alcohols				
	TRIPLE ONLY Describe how alcohols can be made from fermentation				
	TRIPLE ONLY Recognise and name carboxylic acids				
	TRIPLE ONLY Describe properties of carboxylic acids				
	TRIPLE ONLY Describe how to make and name esters from alcohols and carboxylic acids				
	TRIPLE ONLY Draw and describe condensation polymerisation and describe how it is different than addition polymerisation				
	TRIPLE ONLY Describe natural polymers – DNA, proteins and starch				
C8 Chemical Analysis	Define a pure substance and a formulation				
	Describe how purity can be checked using melting and boiling points				
	Give some examples of formulations				
	Describe how soluble substances can be separated using paper chromatography				
	Interpret chromatograms				

	Calculate Rf values for given chromatograms				
	Describe the test and positive results for chlorine gas, hydrogen, oxygen and carbon dioxide				
	TRIPLE ONLY Describe the test and positive results for cations – flame tests and precipitation using NaOH				
	TRIPLE ONLY Describe the test and positive results for anions – sulphates, carbonates and halides				
	TRIPLE ONLY Describe how flame emission spectroscopy works and interpret spectra to identify unknowns				
C9 Evolution of the Atmosphere	Give the approximate composition of Earth's atmosphere today				
	Describe the likely composition of Earth's early atmosphere				
	Describe and explain how Earth's atmosphere has changed – condensation, sedimentation, photosynthesis etc				
	Name the two greenhouse gases and explain why their concentration in the atmosphere is increasing				
	Explain the 'greenhouse effect' and how this is linked to climate change				
	Describe some of the consequences of climate change				
	Define 'carbon footprint' and give ways of reducing it				
	Describe how carbon monoxide, soot, sulphur dioxide and nitrogen oxides are made				
	Explain the environmental problems linked to soot, sulphur dioxide, nitrogen oxides and carbon monoxide				
C10 Using Resources	Explain the difference between finite and renewable resources				
	Evaluate the extraction of finite resources – jobs, economy, energy use, pollutants such as CO_2				
	Define the term 'sustainable development'				
	Define the term 'low grade ore'				
	Explain how phytomining and bioleaching can be used to extract metals such as copper from low grade ore sites				
	Explain the benefits of recycling or reusing metals, glass and plastics				
	Explain what a 'life cycle assessment' is and why they may be biased				
	Explain what 'potable' water is				

	Describe how water can be made potable using distillation, filtration and sterilisation and desalination				
	Evaluate the production of potable water using distillation and desalination				
	Label the equipment used to distil water and explain the processes involved				
	Explain the stages in sewage water treatment				
	TRIPLE ONLY State the source of the raw materials for the Haber process				
	TRIPLE ONLY Describe the Haber process in terms of reaction conditions and how the ammonia is removed				
	TRIPLE ONLY Explain why the conditions chosen for Haber are 'compromise' conditions				
	TRIPLE ONLY Explain how ammonia can be used to make fertilisers				
	TRIPLE ONLY Explain what NPK fertilisers are and how they are made				

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Topic	Physics Paper 1 Checklist	Planned into revision	Revised on ...	Revisited on ...	Independent practice
P1 Energy	Name the different types of energy 'store' and describe how energy is transferred between them				
	Identify where energy is wasted and describe where this goes				
	Calculate the efficiency of devices				
	Use Sankey diagrams to represent energy transfers or calculate efficiency				
	Define and calculate kinetic energy				
	Define and calculate gravitational potential energy				
	Use values for GPE to calculate maximum theoretical velocity of a raised object				
	Explain why theoretical velocity will not normally be reached				
	Calculate the energy stored in elastic potential in a stretched or squashed object				
	Use and manipulate the specific heat capacity equation to calculate energy/mass/temperature change/specific heat capacity given the others				
	Define specific heat capacity				
	Describe practical procedures to measure specific heat capacity				
	Calculate power using P=E/t or P=Work done/t				
	Describe the relationship between watts and joules				
	Define a 'closed system' and explain what happens to total energy when energy transfers happen in a closed system				
	Describe ways to reduce unwanted energy transfers				
	Describe factors that affect the thermal conductivity of a building				
	Describe the use, reliability and environmental impacts of renewable and non-renewable energy resources				

P2 Electricity	Describe what is meant by an electric current and calculate it using Q=It				
	Describe what is meant by resistance and calculate values for it using Ohm's Law				
	Calculate current, voltage and resistance in series and parallel circuits				
	Recognise, describe and explain the shape of current-voltage graphs for a filament bulb, ohmic resistor and a diode				
	Use and recognise the symbols for all the circuit components covered				
	Calculate electrical power using E=PT, $P=I^2R$, P=VI and perform multi step calculations to do this				
	Describe and explain uses of LDRs – e.g switching on lights when it gets dark				
	Recognise, describe and explain the shape of IV graphs for filament lamp, diode, thermistor and LDR				
	Label the features of 3 core cable and 3 pin plugs				
	Explain the difference between direct and alternating pd				
	Calculate electrical power and energy transferred for given appliances				
	Describe the features of the National Grid and of the voltage supplied to homes				
	Explain the need for step up and step down transformers in the national grid				
	TRIPLE ONLY Describe and explain the production of static electricity and sparking				
	TRIPLE ONLY Interpret and explain evidence on how charged objects can exert forces of attraction and repulsion, at a distance				
	TRIPLE ONLY Describe the production of an electric field around a charged object and draw the pattern				
P3 Particle Theory	Describe density in terms of particle arrangement				
	Use Density = mass/volume to calculate values and use the correct units				
	Explain the term 'internal energy'				
	Describe differences in particle arrangement and energy in solids, liquids and gases				
	Explain what happens to particles during a change of state				
	Use the equation E=mL to calculate mass, specific latent heat or energy				

	Distinguish between specific heat capacity and specific latent heat				
	Define the terms specific latent heat, latent heat of fusion, latent heat of vaporisation and recognise when they are represented on a graph or in data				
	TRIPLE ONLY Explain the term 'gas pressure' and explain how temperature affects this				
	TRIPLE ONLY Use pv=c to calculate pressure (in Pascals) or volume (m^3)				
	TRIPLE ONLY Calculate changes in pressure or volume using $P_1 \times V_1 = P_2 \times V_2$				
	TRIPLE ONLY Explain how increasing pressure can affect the temperature of a gas				
	TRIPLE ONLY Explain how work done affects the temperature of a gas				
P4 Atoms and Nuclear Physics	Label the parts of an atom and state approximate sizes of the atom and the nucleus				
	Explain what might cause changes in distance of electrons from the nucleus				
	Describe the changes to the atomic model over time, and why those changes were made, including Rutherford's work.				
	Describe what is meant by an isotope and describe some of their uses				
	Describe the properties and origins of alpha, beta and gamma radiation				
	Complete nuclear equations for alpha and beta decay				
	Describe what is meant by the half-life of a radioactive isotope and obtain values for this from a decay curve				
	Calculate net decline in count rate and express it as a ratio of original activity				
	Choose an appropriate source for a particular purpose, given some information				
	Explain the difference between contamination and irradiation and compare the hazards of each				
	TRIPLE ONLY Describe the sources of background radiation and factors that can affect levels				
	TRIPLE ONLY Describe the use of radiation in medicine for exploration or treatment				
	TRIPLE ONLY Evaluate the risks involved in nuclear medicine techniques				
	TRIPLE ONLY Explain the processes of nuclear fission and fusion				

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Topic	Physics Paper 2 Checklist	Planned into revision	Revised on	Revisited on	Independent practice
P5 Forces	Name contact and non-contact forces and describe their interaction				
	Define scalar and vector quantities and give examples of each				
	Calculate resultant forces				
	Define weight and use w=mxg to calculate any one of those values				
	Define 'centre of mass'				
	Draw free body diagrams to scale including **(HT & TRIPLE ONLY) resolving forces at different angles**				
	Know the equation to calculate work done and apply this to find work done, force or distance				
	Describe the relationship between joules and newton-metres and convert between them				
	Give examples of forces involved in stretching or compression and explain the difference between elastic deformation and inelastic deformation				
	Describe the features of a graph of force applied versus the extension of a spring				
	Know Hooke's Law (f = ke) and apply it in stretching or compression scenarios				
	Calculate work done during stretching or compressing using e= ½ k x e^2				
P5 Motion	Interpret distance-time graphs to calculate velocity and total distance moved				
	Explain the difference between distance and displacement				
	Know typical values for speed for walking, running, cycling and sensible values for car, train and airplane speeds				
	Describe the difference between velocity and speed and calculate them using s=d/t				
	HT & TIPLE ONLY Describe circular motion in terms of speed and direction				
	Interpret distance time graphs to find speed, **(HT & TRIPLE ONLY) including drawing a tangent if the object is accelerating**				
	Describe what is meant by acceleration				

	Calculate the acceleration or deceleration of an object using a=v-u/t, using negative values to represent deceleration				
	Use uniform acceleration equation to calculate acceleration, velocity or distance				
	Know that acceleration under gravity is 9.8 m/s^2				
	Interpret velocity-time graphs to calculate acceleration, velocity **and (HT & TRIPLE ONLY) total distance/displacement**				
	Describe the change in forces that occur during free fall of an object through a fluid				
	Define terminal velocity				
	Apply Newton's first law to predict the effect of balanced and unbalanced forces on stationary and moving objects				
	HT & TRIPLE ONLY Explain what is meant by 'inertia'				
	Use Newton's second law (f=ma) to calculate force, mass or acceleration				
	HT & TRIPLE ONLY Define inertial mass and calculate it using force/acceleration				
	Apply Newton's third law to equilibrium situations – ie describe how forces exerted by two objects interacting are equal and opposite				
	Define the terms stopping distance, thinking distance and braking distance and know how speed affects overall stopping distance				
	Explain how reaction time can affect thinking distance and how this can be measured				
	Describe physical factors that can affect braking distance – condition of tyres, road etc				
	Explain why large decelerations are dangerous **and (HT & TRIPLE ONLY) estimate values forces involved in deceleration of road vehicles**				
	HT & TRIPLE ONLY Describe what is meant by momentum and calculate values from an equation				
	HT & TRIPLE ONLY Explain what is meant by 'conservation of momentum' and apply this in calculations				
P6 Waves	Describe the origin and properties of longitudinal and transverse waves and give examples				
	Calculate frequency of waves using frequency = number of waves/time and use Hz as the unit				
	Use the wave equation to calculate wave speed, frequency or wavelength including using standard form				
	Describe properties of all EM waves				

	Name the 7 EM waves and describe their uses and dangers				
	Link uses of EM waves to their properties				
	Describe three things that can happen to waves when they meet an object				
	Explain what happens to waves as they travel into more or less dense materials				
	Label a diagram to show refraction of light, including the normal and angles of incidence and refraction				
	Describe ways of measuring wave speed– e.g ripple tank, waves on a string				
	Describe how to measure the speed of sound and know it's approximate value in air				
	Explain how radio waves are generated by oscillating charges in the transmitter and how this generates a current in the receiver				
	TRIPLE ONLY Describe how sound waves cause vibrations in solids and how this relates to hearing				
	TRIPLE ONLY Know the range of hearing in humans				
	TRIPLE ONLY Describe how waves can be used for exploration and detection - e.g ultrasound, echo sounding and seismic waves				
	TRIPLE ONLY Explain how radio waves are generated by oscillating charges in the transmitter and how this generates a current in the receiver				
	Explain how microwaves can be used to communicate with satellites and how microwaves of a different wavelength can be used to cook food				
	Explain how IR radiation emission and absorption is affected by surface and describe an investigation to measure this				
	Explain some of the dangers of EM waves and how the radiation dose is measured				
	TRIPLE ONLY Draw and interpret ray diagrams for concave and convex lenses				
	TRIPLE ONLY Describe the properties of the images formed in different lenses and calculate magnification				
	Describe specular and diffuse reflection				
	TRIPLE ONLY Explain how colour filters work to produce light of different colours				
	TRIPLE ONLY Explain how the colour an object appears is related to the wavelengths of light reflected and absorbed by the object				
	TRIPLE ONLY Describe black body radiation				

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	TRIPLE ONLY Explain how the temperature of a body is related to the balance of incoming radiation and radiation emitted, including the temperature of the Earth				
P7 Magnetism & Electromagnetism	Describe the force between two poles of a magnet				
	Describe the difference between permanent and induced magnets				
	Explain how a current produces a magnetic field and how a solenoid can increase the strength				
	Explain how the interaction of a magnetic field induce by a current and a magnetic field between a horseshoe magnet can produce movement of the wire				
	HT & TRIPLE ONLY Explain the motor effect and use Flemings left hand rule to predict direction of movement				
	HT & TRIPLE ONLY Describe factors that can affect the size of the force acting on a wire and use F=BIl to calculate it				
	HT & TRIPLLE ONLY Explain how an electric motor can produce a turning effect				
	TRIPLE ONLY Explain how loudspeakers and headphones work				
	TRIPLE ONLY Explain the generator effect and how it is used to create ac and dc				
	TRIPLE ONLY Draw and interpret graphs of potential difference of ac and dc				
	TRIPLE ONLY Explain how moving coil microphones work				
	TRIPLE ONLY Describe the basic structure of transformers				
	TRIPLE ONLY Apply the equation relating number of turns and pd in the coil to the currents and power transfer				
P8 Space Physics **(TRIPLE ONLY)**	**TRIPLE ONLY** Explain how a star's life begins				
	TRIPLE ONLY Explain the balance of forces during the main sequence of a star's life				
	TRIPLE ONLY Describe the life cycle of small/medium and massive stars, naming the stages				
	TRIPLE ONLY Explain how fusion processes lead to new elements and how these are distributed over the universe				
	TRIPLE ONLY Describe orbital motion in terms of the forces involved and **how, if speed changes, radius of orbit must change**				
	TRIPLE ONLY Explain red shift and how it provides evidence for the Big Bang				
	TRIPLE ONLY Describe other evidence for the Big Bang - CMBR				

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Geography

Exam length	90 mins		
Topics to revise	**Paper 1:** Q1 = Natural Hazards Q2 = Living World Q3 = Physical Landscapes - Coasts Q4 = Physical Landscapes - Rivers	**Paper 2:** Q1 = Urban Issues & Challenges Q2 = Changing Economic World Q3 = Resource Management – Global Overview Q5 = Resource Management - Water	**Paper 3:** Section A = Fieldwork Section B = Issue Evaluation
Resources to support revision	SharePoint, SMHW, Revision Guides, Case Study Flashcards		
Teacher contact for support	james.craigmyle@thejohnroanschool.org.uk ben.codrington@thejohnroanschool.org.uk		

	Physics Paper 1 Checklist	Planned into revision	Revised on ...	Revisited on ...	Independent practice
Paper 1 Section A - Natural hazards	I can define a **natural hazard** and give some examples of the different types.				
	I can explain the different factors that affect **risk**.				
	Tectonic hazards				
	I can describe the distribution of **earthquakes** and **volcanoes**.				
	I explain the differences between **destructive**, **constructive** and **conservative** plate margins.				
	I know the main features of an **earthquake** and two different ways of measuring earthquakes.				
	Using named examples of a tectonic hazard in both an HIC and an LIC, I can: (1) Explain why the **tectonic hazard** happened there, (2) Describe the effects that resulted from the **earthquakes** both primary and secondary.				

	(3) Describe what was done after the **earthquake** (responses), both in the long and short term.				
	I can explain why **earthquakes** cause more loss of life in poor than in rich countries.				
	I can explain why people continue to live in areas at risk of **tectonic hazards**.				
	I can explain how monitoring, planning and prediction of **tectonic hazards** can reduce their effects.				
	Weather hazard				
	I can describe the **global atmospheric circulation model.**				
	I can explain how the **global atmospheric circulation** model affects weather around the world.				
	I can describe the distribution of **tropical storms.**				
	I can explain the causes of a **tropical storm.**				
	Using a named example I can describe and explain the primary and secondary impacts of **tropical storms**.				
	I can assess and evaluate methods of responses **tropical storms** in both the long and the short term using a named example.				
	I can explain how **tropical storms** might be affected by **global warming.**				
	I can explain how monitoring, planning and prediction of **tropical storms** can reduce their effects.				
	I can explain the cause of an **extreme weather** event using an example.				
	I can describe and expel the social, economic and environmental using an example.				
	I can identify evidence of the weather becoming more extreme using an example.				
	I can explain how extreme events can be managed to reduce the impacts.				
	I can assess and evaluate the **impact** that weather conditions have upon people homes, lives, agriculture, health and transport.				
	Climate change				
	I can explain the evidence both for and against **climate change.**				
	I can explain both the **natural** and **human** causes of climate change.				
	I can assess and evaluate the economic, social, environmental and political impacts of **climate change** both on the world and the UK.				
	I can describe and evaluate the **mitigation** strategies used to reduce the impact of global **climate change** on a **local, national and international** level.				
	I can describe and evaluate the **adaption** strategies used to reduce the impact of global **climate change** on a **local, national and international** level.				
Paper 1 Section B - Ecosystems	Using an example from the UK, I can explain the **interrelationship** within the natural system.				
	I can define and give UK examples of **producers consumers, decomposer, food chain, food web** and **nutrient cycle**				
	I can explain their **interdependence** of each of the above and explain how changes might affect each other.				
	I can describe the **distribution** and characteristics of **global ecosystems** around the world.				
Tropical rainforests (core content)	I can describe the physical characteristics of the **tropical rainforests**				
	I can explain the **interdependence** of the climate, water, soils, plants, animals and people in a tropical rainforest				
	I can explain how plants and animals have **adapted** to the physical conditions of tropical rainforests.				

	I can explain the problems and issues with changing **biodiversity** within the tropical rainforest.				
	I can describe and explain the changing rates of **deforestation**.				
	I can <u>use a case study</u> to explain the causes of **deforestation** subsistence and commercial farming, 1. Logging, 2. Road Building 3. Mineral Extraction 4. Energy Development, Settlement & Population Growth				
	I can <u>use a case study</u> to explain the impacts of **deforestation** 1. Economic development 2. Soil erosion, Contribution to climate change.				
	I can explain the importance and **value** of the tropical rainforest on a local, national and international scale.				
	I can explain why it is important the tropical rainforest should be **managed sustainably**.				
	I can explain how the tropical rainforest can be managed sustainably using a range of methods **1. Selective logging and replanting** **2. Conservation and education** **3. Ecotourism** **4. International agreements about the use of tropical hardwoods,** **Debt reduction.**				
Hot deserts (option)	I can describe the physical characteristics of the hot desert				
	I can explain the **interdependence** of the climate, water, soils, plants, animals and people in a hot desert				
	I can explain how plants and animals have **adapted** to the physical conditions of hot deserts				
	I can explain the problems and issues with changing **biodiversity** within the hot desert.				
	I can <u>use a case study to</u> explain the causes of **desertification** subsistence and commercial farming, 1. Mineral Extraction 2. Energy Development Farming & Tourism				
	I can <u>use a case study</u> to explain the challenges of **desertification** 1. Extreme temperature 2. Water supply Inaccessibility				
	I can define and describe **desertification**				
	I can explain the causes of **desertification** both human and natural				
	I can explain a how **desertification** can be managed using: 1. Water and soil management 2. Tree planting Using appropriate technology				
Paper 1 Question 3 & 4 –	I can describe the location of the major upland and lowland areas within the UK				
	I can describe the location of the major river systems within the UK				
Q3 - Coastal landscapes of the UK	I can define what the coast is				
	I can describe and explain the different types of **waves**				
	I can name and explain the four processes of **erosion**				
	I can name and explain the processes of **weathering**				
	I can name and explain the processes of **mass movement**				

	I can describe **erosional landforms** and the sequence of (arch, caves, stacks, stump, wave cut platforms, wave cut notch) are formed.				
	I can describe and explain the process of **mass movement** and **slumping**				
	I can explain, using an example, how **erosion** and **deposition** will impact on the people and the environment at the coast.				
	I can describe the processes of **transportation** in the coastal zone. (Longshore drift and traction, saltation, suspension and solution)				
	I can explain the reasons why sediment is **deposited** on the coast.				
	I can explain how **depositional landforms** (beaches, spit and bars) are formed.				
	I can describe and explain methods of **hard** and **soft engineering** using an example.				
	I can evaluate the cost and benefits of **hard** and **soft engineering** using an example.				
	I can explain why people have different views about the way the coast in managed and the conflicts this may cause using an example.				
	I can identify on an OS map all of the coastal landforms and use 4 & 6 fig grid references to locate them on a map				
Q4 - River landscapes of the UK	I can describe how a rivers **long profile** and **cross profile** varies over its course				
	I can explain how **vertical** and **lateral** erosion changes the cross profile of a river				
	I can explain the four process of **erosion**				
	I can describe the four processes of **transportation** in a river				
	I can explain the reasons why a river **deposits** its eroded material				
	I can explain how **interlocking spurs**, **waterfalls** & **gorges** are formed				
	I can explain that **meanders** are formed by erosion & deposition				
	I can describe an **Ox Bow lake** and explain how they form from meanders				
	I can explain how a **flood plain**, levee and estuaries are formed				
	I can use an example of a river valley to demonstrate my understanding of the erosional and depositional landforms				
	I can explain how physical and human factors affect the risk of flooding including precipitation, geology, relief and land use.				
	I can explain what river **discharge** means & how it is shown on a **hydrograph**				
	I can explain at least 4 **factors** (things!) that will either **increase or decrease** river discharge				
	I can explain how **hard engineering** can reduce the risk of flooding or the effects of flooding				
	I can explain how **soft engineering** can reduce the risk of flooding or the effects of flooding				
	Using an example I can explain 1. Why the scheme was required 2. How the area was managed The social, environmental and economic issues.				
	I can identify on an OS map all of the river landforms and use 4 & 6 fig grid references to locate them on a map.				

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Topic	Geography paper 2	Planned into revision ...	Revised on ...	Revisited on ...	Independent practice
Paper 2 Section A – Urban Issues &	I can explain how **urbanisation** has happened at different rates and at different times in different parts of the world making reference to LICs and HICs.				
	I can explain some of the **causes** of **urbanisation** in different parts of the world making reference to LICs and HICs.				
Case study of the LIC or NEE – Rio De Janerio	I can explain why Rio De Janerio, Brazil is important **nationally** and **internationally**				
	I can explain why and how Rio De Janerio has grown				
	I can explain, analyse and evaluate the **opportunities** in Rio De Janerio including: 1. Access to services – health 2. Access to services - education 3. Access to resources - water supply 4. Access to resources - energy How urban industrial areas can promote economic development				
	I can explain, analyse and evaluate the **challenges** in Rio De Janerio including: 1. Managing urban growth – slums, squatter settlements 2. Clean water, sanitation systems and energy 3. Access to services – health and education 4. Unemployment and crime Managing environmental issues – waste disposal, air and water pollution, traffic congestion.				
	I can explain and evaluation the how Ban Rio De Janerio galore can plan to improve the **quality of lives** for the **urban poor**.				
Case study of a HIC - London	I can explain why London is important **nationally** and **internationally**				
	I can explain why and how London has grown				
	I can explain the impact of national and international migration on the growth and character of the London.				

	I can explain, analyse and evaluation the **opportunities** in <u>London</u> including 1. Cultural mix 2. Recreation 3. Entertainment 4. Employment 5. Integrated transport systems Urban greening				
	I can explain, analyse and evaluation the **challenges** in London including 1. Inequalities in housing, education and employment. 2. Urban deprivation 3. Dereliction of buildings 4. Building on **brownfield** and **greenfield** sites. 5. Water disposal Urban sprawl on the rural – urban fringe and of commuter towns				
	I can explain, analyse and evaluation the how London has undergone **regeneration.[**<u>Olympic Park</u>]				
Urban sustainability	I can describe how people can live more **sustainably**				
	I can explain how **sustainable urban living** can conserve water and energy, recycle waster and create more green space. (Olympic Park)				
	I can explain how urban transport strategies are used to reduce traffic congestion.				
Paper 2 Section B – Changing Economic World	I can describe the methods of classifying countries and use different **development indicators.**				
	I can evaluate the use of different **developmental indicators**.				
	I can use the **Demographic Transition Model** to explain the link between changing population structure and level of development.				
	I can explain the causes of **uneven development**: 1. Physical 2. Economic Historical				
	I can explain the impacts of **uneven development** on people				
	I can explain how the **development gap** can be reduced looking at:				

	1. Investment 2. Industrial development and tourism 3. Aid 4. Using intermediate technology 5. Fairtrade 6. Debt relief Microfinance loans.				
	I can <u>use an example</u> to show how tourism in an LIC can help to reduce the development gap				
Case study of the LIC or NEE – Nigeria	I can explain why <u>Nigeria</u> is important within Africa and internationally				
	I can describe the political, social and culture contact of <u>Nigeria</u> within a **world context.**				
	I can describe the changing **industrial structure** within in <u>Nigeria</u>.				
	I can explain how manufacturing can stimulate **economic growth** in within <u>Nigeria</u>.				
	I can define a **Transnational Corporation (TNC)** <u>using a case study.</u>				
	I can explain the advantaged and disadvantages of TNCS to <u>Nigeria</u>				
	I can describe how <u>Nigeria's</u> **politics** and **trading relationship** have changed over time.				
	I can described what **aid** is where is comes from <u>using a case study.</u>				
	I can explain what **aid** Nigeria has received and how it has impacted the country <u>using an example</u>				
	I can explain and evaluation the **environmental** impacts of **economic development**.				
	I can explain and evaluation impacts of **economic development** on the **population of Nigeria**				
Economy of the UK	I can explain why **deindustrialisation** has occurred in the **UK**				
	I can explain the advantages and disadvantages of the **UK** move in the **tertiary sector (post-industrial economy**				
	I can explain, <u>using an example</u>, how modern industry can reduce its impact upon the environment and become more **sustainable**				
	I can explain, <u>using an example</u>, the social and economic impacts of **population growth** on a **rural landscape**.				

	I can explain, using an example, the social and economic impacts of **population decline** on a **rural landscape.**				
	I can describe and explain the impact or **transport developments** in road, rail, port and airports.				
	I can describe the North – South divide in the UK.				
	I can evaluate and explain the strategies use to solve **regional differences** within the UK.				
	I can examine the **global links** made with the wider world through trade, culture, increased communication, economics and **political groupings** such as the commonwealth and the European Union.				
	I can analyse the growing **interdependence** and **globalisation** of the UK in relation to its economy and politics.				
Paper 2 Question 3 & 5 – Resource Manageme	I can describe the importance of **food**, **water** and **energy** to the economic and social wellbeing.				
	I can describe the distribution of **resource**s around world.				
	I can explain why **resources** are unevenly distributed around the world.				
Resource management core content	I can describe the distribution of **resources** around the UK.				
	I can explain the **changing demand** for different foods in the UK.				
	I can explain why **food miles** are increasing in the UK.				
	I can explain how **food miles** can be reduced in the UK.				
	I can describe the different industries involved in agriculture (**agribusiness**) and explain how they are changing in the UK.				
	I can explain the changing **demand** for water in the UK.				
	I can describe the problems with **water quality** and **pollution** in the UK and how they can be managed.				
	I can explain how the UK is trying to manage water to meet **supply** and **demand**.				
	I can describe the UKs **energy mix** and how it has changed over time.				
	I can explain how the UK can reduce its reliance on **fossil fuels**.				

	I can describe and explain the economic and environmental issues with exploitation of energy sources.				
Resource management option: Water	I can describe the global distribution of water resources both **surplus** and **deficit**				
	I can explain why water consumption is increasing				
	I can explain and evaluate the different factors which effect **water availability** including: • Climate • Geology • Pollution of supply • Over-abstraction • Limited infrastructure Poverty.				
	I can analyse the impacts of water insecurity including: waterborne disease • Water pollution • Food production • Industrial output The potential for conflict where demand exceed supply.				
	I can explain and evaluate how **water supplies** can be managed to increase supply in certain areas				
	I can use an example to show how managing water through a **transfers schemes** has both advantages and disadvantages				
	I can explain how water resources can be managed **sustainably**				
	I can use an example of a **local scheme** which has managed **water sustainably** to increase water supplies.				

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Topic	Geography paper 3 Section A - Fieldwork	Planned into ...	Revised on ...	Revisited on ...	Independent practice
Suitable Enquiry Question	I know the factors that need to be considered when selecting suitable questions.				
	I understand the geographical theory/concept underpinning the enquiry				
	I know the different sources of primary and secondary evidence including locations				
	I know the potential risks of both human and physical fieldwork and how reduced				
Selecting, measuring and recording appropriate data	I can explain the difference between primary and secondary data				
	I can identify and select appropriate human and physical data				
	I can explain the measuring and recording of data using different sampling methods				
Select appropriate ways of processing and presenting fieldwork data	I appreciate that there are a range of visual graphic and cartographic methods				
	I can select and use accurately appropriate presentation methods				
	I can describe, explain and adapt presentation methods				
	I can explain the causes of a tropical storm.				
Describing, analysing and explaining fieldwork data	I can describe, analyse and explain the results of fieldwork data.				
	I can establish links between data sets.				
	I can use appropriate statistical techniques				
	I can identify anomalies in fieldwork data				
Evaluation of geographical enquiry	I can identify the problems of data collection methods				
	I can identify the limitations of data collected				
	I can suggest other data that might be useful				
	I can explain the extent to which conclusions were reliable				

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History

Exam length	2x 2 hour exams
Topics to revise	Paper 1: • Conflict and Tension: inter-war years, 1918 - 1939 • America, 1920 – 1973 Paper 2: • Britain: Health and the People, c. 1000 – present day • Elizabethan England, 1558 - 1603
Resources to support revision	○ Year 11 Revision Resources
Teacher contact for support	Fjolla Bivolaku (HOD) – fjolla.bivolaku@thejohnroanschool.org.uk Rita Stibbe – rita.stibbe@thejohnroanschool.org.uk Roddy Wilson - @roddy.wilson@thejohnroanschool.org.uk

Topic	Conflict & Tension	Planned into	Revised on	Revisited	Independent practice
End of WW1	Aims of the Big Three – why did they differ?				
	Terms of the Treaty of Versailles				
	Reaction to the treaty of Versailles – leaders and the people in each country				
	Did the Big Three achieve their aims?				
The League of Nations	Structure of the League of Nations				
	Aims and membership of the League of Nations				
	The work of the League of Nations – successes and failures				
	The Locarno Treaties and Kellogg-Briand Pact				
	The Wall Street Crash and The Great Depression				
	The Manchurian Crisis				
	The Invasion of Abyssinia				
	The collapse of the League of Nations – was it doomed to fail?				
origins and outbreak of WW2	What did Hitler want?				
	Reaction to Hitler's foreign policy				
	Rearmament and the road to war				
	Reoccupation of the Rhineland				
	Which countries supported Hitler?				

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	Anschluss with Austria – how it happened and reaction to it				
	The Sudeten Crisis				
	Britain and appeasement (Neville Chamberlain)				
	The Nazi-Soviet Pact				
	The invasion of Poland and the declaration of war				
	Summary – why did WW2 break out?				

Topic	America	Planned into revision	Revised on	Revisited on	Independent practice
Economic book, 1920s	Reasons for the 1920s economic boom				
	Roaring Twenties				
	Changes to women during the 1920s				
	Prohibition – why was it introduced and repealed?				
	Racial tension – experience of African-Americans, 1920s				
	Inequalities of the wealth – who did not benefit the economic boom?				
Great Depression	Speculation and the Wall Street Crash				
	Great Depression – impact on American society				
	Great Depression – impact on American economy				
	Hoover's response to the Great Depression				
	1932 Presidential Election – why did FDR win?				
Topic – The New Deal	Measures introduced by the New Deal, 1933				
	Impact of the New Deal				
	Opposition to New Deal – Radicals, Supreme Court, Republicans				
	Was the New Deal a success/ failure?				
1930s society	1930s pop culture				
WW2	Economic impact of WW2 on America				
	Social impact of WW2 on America				
	McCarthyism / Second Red Scare				
Civil Rights	Progress in Education – Brown vs Topeka, 1954				
	Progress in Education – Little Rock Nine, 1957				
	Montgomery Bus Boycott, 1955-56				
	Greensboro sit in, 1960				
	Martin Luther King & Birmingham, Alabama, 1963				

	Martin Luther King & the March on Washington				
	Malcom X				
	Black Power Movement				
	Civil Rights Legislation eg Civil Rights Act 1964				
	Assassination of MLK				
America & the Great Society	President John F Kennedy, New Frontier				
	President Lyndon B Johnson, Great Society				
	Development of the Feminist Movement				

Topic	**Britain: Health and the People, c.1000 - present day**	Planned into revision	Revised on	Revisited on	Independent practice
Medieval Section	Hippocrates and the Four Humours				
	Galen and Theory of Opposites				
	Causes and treatments – natural and spiritual				
	The influence of the Church				
	Islamic medicine				
	Surgery				
	Public health and monasteries				
	The Black Death				
Renaissance section	Andreas Vesalius				
	Ambroise Pare				
	William Harvey				
	Thomas Sydenham				
	John Hunter				
	Treatments				
	The Great Plague – similarities and differences 1348 and 1666				
	Nursing – Florence Nightingale and Mary Seacole				
	Edward Jenner and Vaccination				
A Revolution in medicine	Germ Theory (Louis Pasteur)				
	Robert Koch				
	Paul Ehrlich				
	Anaesthetics (Humphry Davy, James Simpson) and impact				
	Antiseptics and Asepsis				
Mod	X-rays				

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	Blood transfusions and blood groups				
	Plastic surgery				
	Penicillin (Alexander Fleming; Howard Florey and Ernst Chain)				
Public Health	Liberal social reforms				
	Housing and health in the Industrial revolution to the Second World War				
	The Beveridge Report and the creation of the NHS				

Topic	**Elizabethan England, 1588 – 1603**	Planned into revision timetable	Revised on	Revisited on	Independent
Topic – Elizabeth' s court and parliament	Elizabeth I and her court				
	Background and character of Elizabeth				
	Court life – patronage				
	Key ministers				
	Difficulties of female rulers				
	Relations with Parliament				
	Problems of marriage and succession – suitors / how was the succession crisis resolved				
	Strength of Elizabeth's authority at the end of her reign				
	Essex's rebellion				
Topic – Life in Elizabethan times	Golden Age				
	Living standards and fashions				
	Growing prosperity and the rise of the gentry				
	Elizabethans theatre and achievements – how did this develop throughout Elizabeth's reign?				
	The poor – reasons for the increase in poverty				
	Attitudes and response to poverty – EG Poor Laws				
	English sailors – Hawkins and Drake				
	Voyages of exploration				
	Role of Raleigh				
Topic – Troubles at Home	Question of religion				
	Catholic threats including rebellions				
	Puritan threats				
	Papal Bull – excommunication of Elizabeth				

	Elizabeth and her government's responses and policies towards religious matters				
	Mary Queen of Scots – background				
	Elizabeth's and Parliament's treatment of Mary – plot, execution and impact				
	Conflict with Spain, reasons and events				
	Naval warfare, including tactics and technology				
	Defeat of the Spanish Armada				
You must revise the following bullet points in relation to the site: The Globe Theatre	• Location • Weather • People connected with the site • Important events and developments				

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Religious Studies (RS)

Exam length	**Paper 1 (Christianity and Islam**) - 1 hour 45 minutes **Paper 2 (Thematic Studies)** - 1 hour 45 minutes *Each exam paper has **four sections**.* *Each section has the same structure: 1, 1, 4, 6 and 12-mark questions.* *Each section should take you **26 minutes** (practise this time limit!)*
Topics to revise	**Paper 1:** Christianity – Beliefs Christianity – Practices Islam – Beliefs Islam – Practices **Paper 2:** Theme A: Relationships and Families Theme B: Religion and Life Theme D: Religion, Peace and Conflict Theme E: Religion, Crime and Punishment For paper 2 you should be able to give at least **two different religious teachings** for each topic. *For example, you should know one Christian teaching against abortion, and one teaching that would support a woman's choice to have an abortion.*
Resources to support revision	**Oxford Revise Revision Guide** (for knowledge, retrieval questions and exam practice) **Seneca** (for simple recall and exam practice) **Sharepoint** (for past exam papers and model answers) **YouTube** (for videos of Christian/Muslim practices e.g. how do Muslims pray?)
Teacher contact for support	Jacob.lines@thejohnroanschool.org.uk

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Paper 1 Topics	Checklist	Planned into revision timetable	Revised on ...	Revisited on ...	Independent practice
Christian Beliefs	The nature of God (including the Trinity)				
	Beliefs about creation				
	Beliefs about the afterlife				
	The incarnation, crucifixion, resurrection and ascension of Jesus				
	Sin and salvation				
Christian Practices	Worship and prayer				
	The role and meaning of sacraments				
	Pilgrimage (including Lourdes and Iona)				
	Celebrations (Christmas and Easter)				
	The church in the community; and mission, evangelism and church growth				
	The importance of the worldwide church				
Islam - Beliefs	The six articles of faith (Sunni Islam) / the five roots of Usul-al-Din (Shia Islam)				
	Tawhid / the nature of God				
	Angels				
	Predestination / afterlife				
	Prophethood and holy books				
	The Imamate in Shia Islam				
Islam – Practices	The five pillars (Sunni Islam) and The ten obligatory acts (Shia Islam)				
	The Shahadah				
	Prayer (salah) and its significance				
	Fasting (sawm) and charity (zakat)				
	Hajj and Jihad				
	Festivals and commemorations (Id-ul-Fitr, Id-ul-Adha, Ashura)				

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Paper 2 - Topics	Checklist	Planned into revision	Revised on ...	Revisited on ...	Independent
Theme A: Relationships and Families	Sex and sexuality				
	Contraception				
	Marriage and divorce, cohabitation				
	Families				
	Gender equality/discrimination				
Theme B: Religion and life	Scientific and religious teachings about the origins of the universe				
	Scientific and religious teachings about the origins of human life				
	The value of the universe *(dominion, stewardship, the use of animals/resources)*				
	Abortion				
	Euthanasia				
	Death and the afterlife				
Theme D: Religion, peace and conflict	Peace, justice, forgiveness and reconciliation				
	Reasons for war				
	Just War theory				
	Holy War (Christianity) / Lesser Jihad (Islam)				
	Pacifism and peacemaking				
	Religion and belief as a cause of violence				
	Religion as a source of peacemaking				
	Nuclear weapons and weapons of mass destruction				
Theme E: Religion crime and punishment	Good and evil intentions and actions				
	Reasons for crime				
	Religious views about different crimes / people who break the law				
	Forgiveness				
	The aims of punishment				
	The treatment of criminals (prison, corporal punishment, community service)				
	The death penalty (religious arguments for and against)				

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Spanish Foundation

Exam length	**Listening – 35 minutes + 5 minutes preparation time** **Reading – 45 minutes** **Speaking – 9 minutes** **Writing – 1 hour**
Topics to revise	Theme 1 – Identity and culture Theme 2 – Local, national, international and global areas of interest Theme 3 – Current and future study and employment
Resources to support revision	Student sharepoint - #2024-25 Revision Materials – Foundation
Teacher contact for support	Matthew.hanly@thejohnroanschool.org.uk Thomas.foster-nye@thejohnroanschool.org.uk

Overview of Topics Foundation

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
Listening	• June 19 Past Paper • November 20 Past Paper • November 21 Past Paper				
Reading	• June 19 Past Paper • November 20 Past Paper • November 21 Past Paper				
Speaking	• Spanish General Conversation Booklet • GCSE Spanish Photo Card booklet • GCSE Spanish Role play booklet • Success at Speaking Support booklet				
Writing	• Success at GCSE writing Spanish • Foundation – Knowledge Organisers (These are sentence builders!)				
Grammar	• Tense revision • GCSE Spanish - AQA (for exams until 2025) - BBC Bitesize				

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Spanish Higher

Exam length	**Listening – 45 minutes + 5 minutes preparation time** **Reading – 1 hour** **Speaking – 12 minutes** **Writing – 1 hour 15 minutes**
Topics to revise	Theme 1 – Identity and culture Theme 2 – Local, national, international and global areas of interest Theme 3 – Current and future study and employment
Resources to support revision	Student sharepoint - #2024-25 Revision Materials – Higher
Teacher contact for support	Mariaeloisa.susco@thejohnroanschool.org.uk Thomas.foster-nye@thejohnroanschool.org.uk

Overview of Topics

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
Listening	• June 19 Past Paper • November 20 Past Paper November 21 Past Paper				
Reading	• June 19 Past Paper • November 20 Past Paper November 21 Past Paper				
Speaking	• Spanish General Conversation Booklet • GCSE Spanish Photo Card booklet • GCSE Spanish Role play booklet Success at Speaking Support booklet				
Writing	• Success at GCSE writing Spanish Higher – Knowledge Organisers (These are sentence builders!)				
Grammar	• Tense revision GCSE Spanish - AQA (for exams until 2025) - BBC Bitesize				

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BTEC TECH AWARD ENTERPRISE	
Exam length	COMPONENT 3: Marketing and Finance for Enterprise 2 Hours
Topics to revise	**Learning Aim A : A Marketing activities** • A1 Targeting and segmenting the market • A2 4Ps of the marketing mix • A3 Factors influencing the choice of marketing methods • A4 Trust, reputation and loyalty Learning **Aim B: Financial documents and statements** • B1 Financial documents • B2 Payment methods • B3 Revenue and costs • B4 Financial statements • B5 Profitability and liquidity **Learning Aim C: Financial planning and forecasting** • C1 Budgeting • C2 Cash flow • C3 Suggesting improvements to cash flow problems • C4 Break-even point and break-even analysis • C5 Sources of business finance
Resources to support revision	1. Videos for topics Two Teachers Free Business Resources 2. Class book 3. Applied business shared drive 4. CGP resources BTEC Tech Award Enterprise **B Financial documents and statements** • B5 Profitability and liquidity Liquidity Ratios | Two Teachers **Financial planning and forecasting** • C1 Budgeting Budgeting in Business • C2 Cash flow Cash Flow Forecasting • C3 Suggesting improvements to cash flow problems • C4 Break-even point and break-even analysis Break Even Analysis Activity • C5 Sources of business finance SOURCES OF BUSINESS FINANCE | Two Teachers
Teacher contact for support	dorcas.johnson@thejohnroanschool.org.uk

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	Checklist	Planned into ...	Revised on	Revisited	Independent practice
Marketing Activities (A1-A2)	Watch Two Teachers video on market segmentation Create flashcards for all 4Ps of marketing mix with examples				Practice explaining ONE advantage of targeting specific market segments (with justification) Practice explaining ONE advantage of each P with justification
Marketing Activities (A3-A4)	Create a comparison table of different marketing methods Practice explaining TWO factors that influence marketing method choice (with justifications)				Practice explaining TWO factors that influence marketing method choice (with justifications) Practice contextual application with 2 mini case studies
Financial Documents (B1-B2)	Practice identifying documents, payment method comparisons Review trade credit examples and common misconceptions				Practice completing a statement of account (with correct pence format) Practice explaining ONE disadvantage of cash payments
Revenue and Costs (B3)	Calculations practice, cost classification exercises Create flashcards for financial terminology (avoid using "money")				Practice revenue calculations with different pricing strategies Complete practice questions on explaining the impact of changes in costs
Financial Statements (B4)	Balance sheet and income statement exercises				Practice completing a profit and loss account (statement of comprehensive income) Practice completing a balance sheet (statement of financial position)
Profitability &	Ratio calculations, interpretation exercises				Practice calculating profitability ratios Practice calculating liquidity ratios
Budgeting & Cash Flow (C1-	Budget creation exercises, cash flow forecasting				Practice creating a cash flow forecast Practice identifying favourable and adverse variances
Cash Flow Solutions & Break-Even	Problem-solving activities, break-even calculations				Practice explaining the difference between cash flow and profit Practice drawing and labelling break-even charts Calculate break-even points for 3 different scenarios
Sources of Finance (C5) &	Finance comparison tasks, mixed topic revision				Complete table comparing internal and external finance sources Practice distinguishing between short-term and long-term sources

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Music

Exam length	1 hour 15 minutes
Topics to revise	**Form and devices** **Film Music** **Music for Ensemble** **Popular Music**
Resources to support revision	* OGP GCSE WJEC/Eduqas Music Revision Book • Revision (Shared folder) • EDUQAS GCSE Music Bach Badinerie revision - YouTube • Badinerie Analysis - Motif section A • Badinerie Analysis - Section B Motif • Badinerie Analysis - Harmony • Badinerie Analysis - Harmony part 2 • Badinerie Analysis - Rhythm - YouTube • Badinerie analysis Tonality • Badinerie Analysis - Rhythm - YouTube • EDUQAS GCSE Music Toto Africa revision • Eduqas Digital Educational Resources
Teacher contact for support	Andrew.Barker@thejohnroanschool.org.uk

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
Form and Design	Treble ,bass, alto and tenor clefs				
	Circle of fifths – Major and Minor Keys up to and including 4 sharps and flats. Modes.				
	Time signatures and note values – compound and simple time, Dots, Ties and Triplets, Dynamics and Articulation. Intervals				
	Chords and their inversions Cadences Texture –Homophonic -Polyphonic				

	Instruments of the orchestra – The ranges of Voices				
SET WORK	Bach Badinerie set work analysis (100% this will be in the exam)				
	Africa by Toto Set work analysis (100% This will come up in the exam). Ornamentation				
	Baroque – Classical – Romantic periods the stylistic features of each period				
	Cadences				
Ensemble Music	Chamber Music Sonatas String ensembles				
	Musical theatre – character song, ensembles, action songs, duets, trio, solos etc				
	Blues – Blues rhythm and scales. Twelve bar blues Jazz – syncopation – improvisation Rhythm section				
Film Music	Instrumentation – How sounds creates moods – synchronisation of music to action – Technology – Minimalism – Leit Motif – Diagenetic music - Ostinato				
Popular Music	Acapella – Vibrato – Falsetto – Portamento – Scat – Riffing – Belting – Rapping – Beatboxing				
	Roles of performers in a band – lead singer – drum kit player – bass guitar – lead guitar – synthesizers- Backing singers (Harmony, Unison, Descant, Call and Response). Electronic effects				
	Rock Music, Rock and Roll, Reggae, Pop , Fusion, Bhangra,				

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BTEC Health and social care

Exam length	2 Hours
Topics to revise	AO1 Knowledge of health and wellbeing AO2 Understanding of health and wellbeing AO3 Apply knowledge and understanding of health and wellbeing AO4 Make connections between aspects of health and wellbeing
Resources to support revision	BTEC Health and Social Care Revision Booklet
Teacher contact for support	Ms Sterling Smith (naomi.sterling-smith@thejohnroanschool.org.uk) Ms Sumner (tracey.sumner@thejohnroanschool.org.uk)

Topic	Checklist	Planned into revision timetable	Revised on ...	Revisited on ...	Independent practice
Knowledge of health and wellbeing	Definition of health and wellbeing.				
	Physical factors that can have positive or negative effects on health and wellbeing				
	Lifestyle factors that can have positive or negative effects on health and wellbeing				
	Social factors that can have positive or negative effects on health and wellbeing.				
	Cultural factors that can have positive or negative effects on health and wellbeing.				
	Economic factors that can have positive or negative effects on health and wellbeing.				
	Environmental factors that can have positive or negative effects on health and wellbeing.				
	The impact on physical, intellectual, emotional and social health and wellbeing of different types of life event.				

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Topic	Checklist	Planned into revision	Revised on ...	Revisited on ...	Independent practice
Interpreting health indicators – Understanding health and well-being.	Interpretation of physiological data according to published guidelines.				
	The potential significance of abnormal readings: impact on current physical health (short-term risks), potential risks to physical health (long-term risks).				
	Interpretation of lifestyle data according to published guidelines.				
Person-centred approach to improving health and wellbeing	The ways in which a person-centred approach takes into account an individual's.				
	The importance of a person-centred approach for individuals.				
	The benefits of a person-centred approach for health and social care workers and services.				
Recommendations and actions to improve health and wellbeing	Established recommendations for helping to improve health and wellbeing.				
	Support available when following recommendations to improve health and wellbeing.				
Barriers and obstacles to following recommendations	Definition of barriers: something unique to the health and social care system that prevents an individual accessing a service.				
	Potential barriers as appropriate to the individual and the recommendation.				
	Definition of obstacles: something personal to an individual that blocks a person moving forward or when action is prevented or made difficult				

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GCSE PE Paper 1

Exam length	Paper 1 – Fitness & Body Systems (1HR30min) 36% towards your total GCSE
Topics to revise	Unit 1 – Anatomy & Physiology Unit 2 – Movement Analysis Unit 3 – Physical Training – Using Data
Resources to support revision	YR10 Core Knowledge Booklet Unit 1,2&3 PE Classroom Posters Seneca BBC Bitesize Everlearner
Teacher contact for support	Charlie.cole@thejohnroanschool.org.uk

Topics to revise

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
1	Apply the functions of the skeletal system to performance in sporting activities/sporting context				
1	Identify the four types of bone classification and understand their functions				
1	Label the skeletal system				
1	Identify the classification of joints within the human body and describe the movements that occur within the joint				
1	Understand the role of connective tissues				
1	Identify the classification and characteristics of muscle types				
1	Label the muscular system				
1	Explain how antagonistic muscle pairs are used in sporting examples				

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1	Identify the characteristics of fast and slow twitch muscle fibres and the impact they have on physical activity				
1	Apply the functions of the cardiovascular system to performance in physical activity				
1	Label the structure of the heart				
1	Explain the structural differences of the blood vessels and highlight their importance during physical activity				
1	Explain the term Vascular Shunting				
1	Explain the functions and importance of blood cells in physical activity				
1	Understand lung volumes				
1	Label the main components involved in the respiratory system				
1	Explain gaseous exchange and the role alveoli has on this				
1	Highlight the differences of aerobic and anaerobic respiration				
1	Understand energy sources				
1	State and explain the short-term effects of exercise on the muscular system				
1	State and explain the short-term effects of exercise on the cardiovascular system				
1	State and explain the short-term effects of exercise on the skeletal system				
1	State and explain the short-term effects of exercise on the respiratory system				
1	State and explain the long-term effects of exercise on the body systems				
1	Interpretation of graphical representations of lung & heart volumes				
2	Identify a 1st 2nd & 3rd class lever system				
2	Explain the term mechanical advantage				
2	Understand the movement patterns occurring at the plane & axis				
3	Explain the link between fitness, health & exercise				
3	Define all 11 components of fitness and explain the protocol of each fitness test linked to the COFs				

3	Collection and interpretation of data from fitness test results and analysis and evaluate these against normative data				
3	Explain how the principles of training are used when conducting a PEP				
3	Understand the thresholds of training – both aerobic and anaerobic training zones				
3	State and explain the seven methods of training, providing advantages and disadvantages for all				
3	Long term effects of exercise on the cardio-respiratory system				
3	Long term effects of exercise on the cardio-respiratory system				
3	Understand why PARQ are used to assess personal readiness for training				
3	Identify and explain methods to minimise risk of injury				
3	Identify common types of injuries that occur in physical activity				
3	Define the term RICE				
3	Name and explain the positive and negative effects PED's have on an athlete				
3	Explain the stages of a warm-up and cool-down and its importance to the athlete/sporting event				

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GCSE PE Paper 2	
Exam length	Paper 2 – Health & Performance (1HR15min) 24% towards your total GCSE
Topics to revise	Unit 4 – Health, Fitness & Well-Being Unit 5 – Sports Psychology Unit 6 – Socio-cultural influences – Using Data
Resources to support revision	YR11 Core Knowledge Booklet Unit 4,5&6 PE Classroom Posters Seneca BBC Bitesize Everlearner
Teacher contact for support	Charlie.cole@thejohnroanschool.org.uk

Topic	Checklist	Planned into revision timetable	Revised on …	Revisited on …	Independent practice
4	Identify the physical health benefits of physical activity				
4	Identify the emotional health benefits of physical activity				
4	Identify the social health benefits of physical activity				
4	Impact of fitness on wellbeng – both positive and negative				
4	Understanding on how to promote and create a personal exercise programme				
4	Identify the different types of lifestyle choices				
4	Positive and negative impact of lifestyle choices on health and well-being				
4	Explain the negative impacts of a sedentary lifestyles and the consequences attached				

4	Interpretation and analysis of graphical representation of data associated with trends in physical health issues				
4	State the nutritional requirements and ratio of nutrients for a balanced diet				
4	Explain the role and importance of macronutrients for athletes/performers.				
4	Explain the terms carbohydrate loading & timing of protein intake for athletes				
4	Explain the role and importance of micronutrients for athletes/performers				
4	Identify the factors affecting optimum weight				
4	Understand the variation in optimum weight according to roles in specific physical activities				
4	State the correct energy balance to maintain a healthy weight				
4	Explain the importance of hydration during physical activity/sport				
5	Understand the open-closed, basic-complex & high-low continua				
5	State and explain the four different practice structures – highlighting the advantages and disadvantages				
5	Know how to use goal setting to improve/optimise performance levels				
5	Apply knowledge of practice and skill classification to select the most appropriate method of practice				
5	Identify the principles of a SMART target				
5	State and explain the four types of guidance- providing advantages and disadvantages for all				

5	State and explain the four types of feedback to optimise performance levels				
5	Understand the effectiveness of mental preparation for performance levels				
5	Interpretation and analysis of graphical representation of data associated with feedback on performance				
6	Identify the factors that affect participation in physical activity				
6	Interpretation and analysis of graphical representation of data associated with trends in participation rates				
6	Explain the relationship between commercialisation the media and physical activity/sport				
6	State the advantages and disadvantages of commercialisation and the media for the sponsor, the sport, the spectator & the performer				
6	Identify the different types of sporting behaviour and the reasons for, and the consequences of this behaviour at an elite level				
6	Explain how the principles of training are used when conducting a PEP				
3	Understand the thresholds of training – both aerobic and anaerobic training zones				
3	State and explain the seven methods of training, providing advantages and disadvantages for all				
3	Long term effects of exercise on the cardio-respiratory system				
3	Long term effects of exercise on the cardio-respiratory system				

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BTEC PE	
Exam length	1hour 30mins
Topics to revise	**Components of fitness, principles of training, exercise intensity, fitness methods, methods of training,**
Resources to support revision	Please see Mr Shaw for resources
Teacher contact for support	Mr Shaw(harry.shaw@thejohnroanschool.org.uk) Ms Mann (natalie.mann@thejohnroanschool.org.uk)

3	Understand why PARQ are used to assess personal readiness for training				
3	Identify and explain methods to minimise risk of injury				
3	Identify common types of injuries that occur in physical activity				
3	Define the term RICE				
3	Name and explain the positive and negative effects PED's have on an athlete				
3	Explain the stages of a warm-up and cool-down and its importance to the athlete/sporting event				

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Topic	Checklist	Planned into revision	Revised on ...	Revisited on ...	Independent practice
A1 The importance of fitness for successful participation in sport	Aerobic endurance, muscular endurance, muscular strength, speed, flexibility, body composition, power, agility, reaction time, balance, coordination				
A2 Fitness Training Principles	FITT & additional principles of training – progressive overload, specificity, individual differences, adaptation, reversibility, variation, rest & recovery				
A3 Exercise intensity & how it can be determined	Intensity – HR & HR intensity to fitness training methods Target zones & training thresholds Borg scale 1RM Technology to measure exercise intensity				
B1 Importance of fitness testing & requirements for administration of each fitness test	**Reasons for fitness testing:** • gives baseline data for monitoring/improving performance, can design training programmes based on test results, determine if training programmes are working, results can give a performer something to aim for provide goal setting aims **Pre-test procedures:** calibration of equipment, informed consent, (PAR-Q), participant pre fitness test check e.g. prior exercise participation, knowledge of published standard test methods and equipment, accurate measurement and recording of test results, basic processing of test results for interpretation (using published data tables), ability to safely select appropriate test(s) for given purposes, situations and/or participants. ● **Reliability of test -** consistency of results, factors affecting reliability: – calibration of equipment – motivation of the participant – conditions of the testing environment (inside versus outside conditions) – experience of the person administering the test – compliance with standardised test procedure. ● Validity of results. ● **Practicality:**				

	cost, time taken to perform the test, time taken to set up the test, time taken to analyse data, number of participants that can take part in the test at any time				
B2 Fitness test methods for components of physical fitness	**Aerobic endurance** – multistage fitness test, yo-yo test, Harvard step test, 12 minutes Cooper run or swim **Muscular endurance** – one minute sit up, one minute press up, timed plank test Flexibility – sit & reach, calf muscle flexibility test, shoulder flexibility Speed – 30m sprint test, 30m flying sprint **Muscular strength** – grip dynamometer, 1 rep max **Body composition** – BMI, BIA, waist to hip ratio				
B3 Fitness test methods form components of skill related fitness	**Agility** – Illinois agility run, T test **Balance** – stork stand test, Y balance test **Coordination** – alternate hand wall toss test, stick flip test **Power** – vertical jump test, standing long jump Margaria-kalamen power test **Reaction time** – ruler drop test, online reaction time test				
B4 interpretation of fitness test results	Comparison to norm data Analyse and evaluate test results Recommendations for improvements				
C1 Requirements for each of the following fitness training methods	Warm up Cool down Linking fitness tests to components of fitness Application of principles of training to fitness training methods Application of appropriate training intensities				

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Topic	Checklist	Planned into revision	Revised on ...	Revisited on	Independent practice
C2 fitness training methods for physical components of fitness	**Aerobic endurance** – continuous training, fartlek training, interval training, circuit training **Flexibility** - static active, static passive, PNF **Muscular endurance** – Free weights & fixed resistance machines **Speed** – Acceleration sprint, interval training, resistance drills				
C3 Fitness training methods for skill related components of fitness	**Agility** – SAQ **Power** – Plyometrics **Balance** - specific training exercises **Coordination** – specific training exercises **Reaction time** – specific training exercises				
C4 Additional requirements for each of the fitness training methods	Advantages & Disadvantages				
C5 Provision for taking part in fitness training methods	Public, private & voluntary				
C6 The effects of long term fitness training on the body systems	**Aerobic training** – Cardiac hypertrophy, decreased HR, increased strength of respiratory muscles, capillarisation around alveoli **Flexibility training** - increased range of movement, increased flexibility of ligament & tendons, increased muscle length **Muscular endurance training -** capillarisation around muscle tissues, increased muscle tone **Muscular strength & power training –** muscle hypertrophy, increased tendon and ligament strength, increased bone density **Speed –** increased tolerance to lactic acid				
D1Personal information to aid fitness training	Aims, objectives, lifestyle & physical activity history, attitudes, the mind and personal motivation				

programme design					
D2 Fitness Programme design	Selection of appropriate methods/activity linked to components of fitness Application of principles of training				
D3 motivational techniques for fitness programming	Types of motivation – intrinsic & extrinsic Principles of goal setting SMARTER targets Short- & long-term goals, influence of goal setting on motivation, benefits of motivation on the sports performer				

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Food Preparation and Nutrition	
Exam length	1hour 45mins
Topics to revise	**Food nutrition and health, nutritional and health, Food science, Food safety, Food Choices**
Resources to support revision	• Food theory student Folder (Blue) • Past papers AQA – online • Share point – Hospitality and catering – Y11 Revision sources • Home learning (always exam questions) • Textbooks – provide by teacher
Teacher contact for support	Maria.PESSOADASILVALUZIO@thejohnroanschool.org.uk

Topic	Checklist	Planned into revision	Revised on …	Revisited on	Independent practice
Food nutrition and health	Macronutrients (Functions, Sources and Benefits) • Protein • Fats • Carbohydrates				
	Micronutrients (Functions, Sources and Benefits) - Vitamins - Minerals - Water				
Nutritional and health	Nutritional Needs and Health • Eatwell Guide • 8 Guidelines for a healthy diet • People nutritional needs				

	• Plan a balanced meal for a specific dietary groups (vegetarian or vegan, coeliac, lactose intolerant and high fibre diets)				
	Energy Needs • BMR • PAL • Recommended percentage of energy intake by protein, fat and carbohydrates				
	How to carry out nutritional analysis • Plan and modify recipes, meals and diets to reflect the nutritional guidelines for a healthy diet.				
	Diet, Nutrition and Health - Relationship between diet, nutrition and health - The major diet related to health risks (Obesity, CHD, Diabetes Type 2, Anaemia, Osteoporosis, Bone Health and Dental Health)				
Food Science	Cooking of food and heat transfer • Why food is cooked • Different methods of heat transfer (radiation, convention and conduction)				
	Selecting appropriate cooking methods				
	Functional and Chemical properties of food				

	Protein • Protein denaturation • Protein coagulation • Gluten formation • Foam formation				
	Carbohydrates - Gelatinisation - Dextrinisation - Caramelisation				
	Fats and Oils - Shortening - Aeration - Plasticity - Emulsification				
	Fruits and Vegetables - Enzyme browning - Oxidation				
	Raising agents • Chemical • Mechanical • Steam				
Food safety	Microorganisms and enzymes • Bacteria • Yeast • High risk food				
	The signs of food spoilage - Enzymic action - Mould growth - Yeast action				

	Bacterial contamination - Sources of bacterial contamination - Types of bacteria (names and sources) - Symptoms of food poisoning				
	Principles of food safety – when buying and storing food - Temperatures (freezer, fridge, chilling, danger zone, cooking, reheating) - Ambient storage - "Use by" and "Best before" dates				
	Preparing, cooking and serving food - Personal hygiene - Clean surfaces - Correct cooking times - Separate raw and cooked food - etc.				
Food choices	Factors affecting food choice - PAL - Celebrations - Cost of food - Income - Lifestyles - etc.				
	Food choice related to religion (Buddhism, Christianity, Hinduism, etc) Food choice related to ethical, and moral believes (animal welfare, GMO, fairtrade, etc.) Food related to intolerances (gluten and lactose) and allergies (nuts, eggs, wheat, etc)				

	Food labelling and marketing influences British and International cuisine Sensory evaluation				
Food Provenance	Environmental impact and sustainability of food - Food sources – where and how ingredients are growth, reared and caught.				
	Food and environment - Environmental issues associated to food (seasonal food, organic food, fishing, farming, etc.)				
	Sustainability food - Impact of food and food security (climate change, global warming, flooding, food waste, etc)				
	Food processing and production - Food production (primary and secondary)				
	Technological development associated with better health and food production - Vitamin A and D add to the fat, positive and negative aspects of GMO, fortified food with calcium, iron, etc.				

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Weekly revision planner

Week beginning: ……

Day	Revision subject	Revision topic	RAG rating
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

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Weekly revision planner

Week beginning: ……

Day	Revision subject	Revision topic	RAG rating
Monday			
Tuesday			
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Thursday			
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Saturday			
Sunday			

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Weekly revision planner

Week beginning: ……

Day	Revision subject	Revision topic	RAG rating
Monday			
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Weekly revision planner

Week beginning: ……

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Monday			
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Weekly revision planner

Week beginning: ……

Day	Revision subject	Revision topic	RAG rating
Monday			
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Saturday			
Sunday			

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Weekly revision planner

Week beginning: ……

Day	Revision subject	Revision topic	RAG rating
Monday			
Tuesday			
Wednesday			
Thursday			
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Saturday			
Sunday			

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