Lowton

Church of England High School

'YOU ARE THE LIGHTS OF THE WORLD'

YEAR 9 HALF TERM 3 PARENT GUIDE

Lowton Church of England High School

Parents' Curriculum Guide to Year 9 - Spring Half Term 1

Subjects	What will your child **learn**?	What will my child **know, and what** will they be **able** to do by the end of the half term?
English	Students will continue their study of "A Christmas Carol" focusing on a clear understanding of the plot, main character and key themes. They will also begin to study reading fiction skills based on extracts from different 20th Century texts.	Students will know about: • Why Dickens wrote 'A Christmas Carol' and What life was like for different classes in society at the time the novel was written • The plot, structure, characters, language and themes in the novel. • Students will be expected to know and learn quotations from this text for use in the examinations. Students will be able to: • Understand, discuss and analyse plot, characters, relationships, themes and language - verbally and in written form. • Write in an appropriate style for a literature essay, including the use of quotations Students will know about: • Different reading skills needed when responding to an unseen text including retrieving specific information, supporting ideas with evidence from the text and commenting on the writer's craft. Students will be able to: • Find and retrieve specific information from a fiction text. • Use quotations effectively • Respond to questions about a text in timed conditions • Comment on the writer's choices.
Maths	Foundation Course: Students will study elements from the algebra strand Higher Course: Students will study elements from the geometry strands (Trigonometry and Pythagoras)	In the algebra unit, students on the foundation course will know about and be able to; • Solve linear equations • Solve linear inequalities • Problem solve with linear sequences In the geometry unit, students on the higher course will know about and be able to; • Work out the length of a missing side on a right angled triangle • Work out the size of a missing angle on a right angled triangle • Work out the height of an isosceles triangles

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Science Trilogy	Students will continue their journey through the AQA specification and will be focussing on the topics: 1. Cell biology. 2. Atomic structure and the periodic table. 3. Energy. This is only a brief summary and more detail about what your child should be able to do can be found at: https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464	**Students will Know about:** • How cells in prokaryotes and eukaryotes are designed and adapted to their functions. • How the periodic table is arranged and the way in which this links to the structure and properties of atoms. • How energy is stored and transferred in a variety of different situations. **Students will be able to:** • Prepare and view slides under a microscope. • Investigate the effects of osmosis on a plant cell. • Interpret diagrams of atoms and link this to their position on the periodic table. • Calculate the specific heat capacity of an unknown material. • Apply their knowledge to exam practice questions to demonstrate the breadth of skills required for GCSE.
RS	Pupils will begin theme F this half term – Religion, Social Justice & Human Rights. They will learn about: - Human Rights - Wealth and Poverty	**Students will know about:** - Prejudice and discrimination in religion and belief, including the status and treatment within religion of women and homosexuals. - Issues of equality, freedom of religion and belief including freedom of religious expression. - Human rights and the responsibilities that come with rights, including the responsibility to respect the rights of others. - Racial prejudice and discrimination. - Ethical arguments related to racial discrimination (including positive discrimination), including those based on the ideals of equality and justice. - Wealth, including: the right attitude to wealth, the uses of wealth. - The responsibilities of wealth, including the duty to tackle poverty and its causes. - Exploitation of the poor including issues relating to: fair pay, excessive interest on loans people-trafficking. - The responsibilities of those living in poverty to help themselves overcome the difficulties they face. - Charity, including issues related to giving money to the poor. **Students will be able to:** -Apply their knowledge to answer all Theme F exam questions; ranging from key words & definitions, to evaluating contrasting views on contemporary world issues.

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PE CORE	PE will be taught on a carousel of sporting activities. During each carousel students will follow one or more of the following sports: **Boys:** Football, rugby, handball, volleyball, fitness, badminton, trampolining, athletics **Girls:** Football, Hockey, handball, netball, fitness, badminton, trampolining, athletics, gymnastics, dance	In the sports covered in this half term pupils will: - develop their ability to perform all core and some of the advanced skills - skills will be performed consistently to a very good standard of accuracy, control and fluency - display the physical fitness required to perform effectively - regularly make the correct decisions required to perform in a range of situations
History	Students will continue studying Medicine paper 1. They will learn about • 18^{th} – 19^{th} century ideas on causes, treatments and preventions • This includes a focus on surgery – Simpson and Lister • They will learn about the impact of Nightingale • Germ Theory – Louis Pasteur and its development by Robert Koch • Cholera – John Snow • 20^{th} – 21^{st} century ideas on causes, treatments and preventions • Magic Bullets and antibiotics – Fleming, Florey and Chain • DNA – Watson and Crick • Technology • Case study of Trenches on the Western Front and medicine during WW1	Students will know: • Spontaneous Generation theory was replaced by Germ Theory • In surgery pain and infection were overcome through chloroform, and carbolic acid • Antiseptic surgery was replaced by aseptic surgery • Nightingale reformed hospitals and the nursing profession • John Snow worked out the real cause of cholera • Louis Pasteur and Robert Koch's rivalry resulted in the discovery of many individual germs • Magic bullets were chemical treatments to tackle particular illnesses – Salvarsan 606 and syphilis • Penicillin was accidentally discovered by Fleming and then developed by Florey and Chain • DNA was discovered by Franklin, Watson and Crick • The significance of the creation of the NHS • High tech equipment and its role in modern medicine • The terrain of the trenches and how it affected health (Trench Foot and Fever) • The Casualty Evacuation Route • Key battles – Somme, Ypres and Aras • Key discoveries – transfusions, x-rays, Thomas Splint and Carrell-Dakin method Students will be able to: • Apply their knowledge to answer all paper 1 exam questions

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Geography	Students will be taught Section A Urban Issues and Challenges that covers megacities, reasons for increasing urbanisation focusing on Rio de Janeiro as a case study that includes the national and international importance, cultural mix, opportunities and challenges of living in Rio de Janeiro.	Students will know about: A growing percentage of the world's population lives in urban areas Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges Students will be able to Recognise the global pattern of urban change Urban trends in different parts of the including HICs and LICs and factors affecting the rate of urbanisation, migration (push–pull theory), natural increase and the emergence of megacities. Create a case study(Rio de Janeiro) that illustrates the location and importance of the city in Brazil and the wider world •describe the impacts of national and international migration on the growth and character of the city • explain how urban change has created opportunities: social and economic and evaluate opportunities and social, economic and environmental challenges in Rio and suggest solutions to the challenges.
Option Subjects	**What will your child learn?**	**What will my child know, and what will they be able to do by the end of the half term?**
Spanish	This term students will continue their GCSE Spanish course. They will learn how to discuss their school and subjects and how to give and justify their opinions in much more detail. They will study a variety of past, present and future tenses.	By the end of the term students will be able to: • Give opinions about school subjects • Describe subjects and teachers • Describe school uniform and the school day • Use adjectives • Describe their school • Use negatives They will understand increasingly complicated pieces of written and spoken Spanish and will be able to produce longer pieces of written and spoken Spanish.

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French	This half term students will begin their GCSE French course. They will learn how to discuss their free time and a variety of themes which are media related. They will continue to learn how to give and justify their opinions in much more detail.	By the end of the term students will be able to: • Talk about sport • Use depuis and the present tense • Talk about using technology • Use irregular verbs in the present tense • Discuss reading habits and music • Use negatives • Talk about TV programmes • Use the comparative • Talk about a night out with friends • Be able to give longer, more detailed answers for questions during the preparation for speaking exam questions. They will understand increasingly complicated pieces of written and spoken French and will be able to produce longer pieces of written and spoken French
Drama	This term pupils will be presented with stimuli on challenging themes and be asked to create a devised piece of work with a clear aim. Pupils will also keep a written log recording their initial ideas, how they developed their work and finally evaluate and analyse the final performance.	Students will be able to • Use a range of dramatic techniques in a creative manner. • Create imaginative and believable characters • Have a clear message running throughout the performance • Be able to write using precise details • Explain their ideas clearly and points are comprehensively explored Students will have a practise at the demands of the controlled assessment they will complete next year and be able to assess their strengths and weaknesses.
Music	Texture & Melody are the elements students will focus on this term. Using a knowledge of key systems and scales, pupils will start to compose melodies that make use of phrasing and balance. Other opportunities will arise to develop their understanding through listening, composing and performing.	Pupils will demonstrate the learning and development of the following skills: • Recognising melodic shapes i.e. conjunct, disjunct and triadic • Recognise different textures used in music across a variety of periods and styles. • Perform and compose melodies within different textures.
Art	Students will be introduced to the “Art Deco”, Art and Design movement. Students will explore the use of geometric shapes and symmetry to create a personal response using painting and drawing techniques.	Pupils will be able to: • Research Art Deco and produce an A3 sheet that identifies and analyses the key characteristics of the movement. • Produce an A2 panel design using pencil and coloured pencil. • Demonstrate gradation and blending of colour when using coloured pencils and watercolour paints.

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Photography	Students will be introduced to the theme of "Fantastic and Strange", Surrealist Art and Photography. Students will explore the use of dreams to create photographic representations of famous Surreal Artworks or Photographs.	Students will be able to: • Research Surrealist Art and Photography looking at artists such as Rene Magritte and Salvador Dali. • Deconstruct a photograph or painting and recognise what elements would have to be taken as photographs. • Use the clone tool. • Use layer blends. • Use cut out studio. • Use the resize tool.
Food Technology	In this half term students will know: • concept of provenance, and how this commodity is grown/reared and processed • Focus on cereals as a commodity • how this commodity is grown, and also include primary and secondary processing (including pasteurisation) Include storage and food hygiene and safety • Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to gluten intolerance and type 2 diabetes • Macronutrients – carbohydrates will be studied in depth (including sugars, starches and fibre)	Students will be able to: • Carry out Food science lesson – experiment with different ingredients to thicken a sauce (starches) • Continue the concept of NEA Assessment 1 (practical and written expectations. Introduce a written brief, conduct an experiment. • Complete exam style questions • Prepare and cook high skilled dishes that encourage students to gain maximum marks at year 11 • Link how practical lessons tie in with theory

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Design Technology	Students will continue to work to the basic principles of the AQA Design and Technology specification. They will be looking at tools and processes within the workshop so that they may work better independently towards the next stages of their study. This will be combined with some examination question practice to gear them ready for hitting the ground running in year 10.	Students will know: • How to use various tools and equipment in the workshop including some study around how to use the laser cutter independently • What different types of mechanical device are and how these may be used within NEA tasks • What the acronym SEA CAFÉ stands for and how they can use this not only to inform examination question answers but to begin the structure of NEA portfolio work Students will be able to: • Work with different timber and plastics to refine some of their tool use • Operate the laser cutter independently with a 2d design drawing that they have drawn themselves • Look at and experiment with different mechanical devices to see how motion is generated in products • Use the acronym SEA CAFÉ to develop a starting pint for a possible NEA task
Computer Science	Students will continue with python programming along with being introduced to writing algorithms in pseudo code and flow charts	Students will be able to use decomposition and abstraction to understand the problem that they are being faced with and find a suitable solution. Students will also be able to complete the following algorithm sorts and searches: • Binary • Bubble • Linear • Merge
Creative iMedia	Students are continuing to develop their skills with the RO81 exam unit while applying those skills in the RO82 Creating Digital Graphics unit.	Students will be able to identify what the client has asked them to create along with the target audience of the intended graphic. Students will then move onto developing skills within Fireworks in order to be able to make a graphic that meets the requirements of the client.

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PE GCSE	**Practical** PE will be taught on a carousel of sporting activities. During each carousel students will follow one or more of the following sports: **Boys:** Football, rugby, handball, volleyball, fitness, badminton, trampolining, athletics **Girls:** Football, Hockey, handball, netball, fitness, badminton, trampolining, athletics, gymnastics, dance **Theory** - The four key principles of training and how they are used in sport. - The 7 methods of training, what they entail and examples of how to use them. - Stages of an effective warm up and cool down and examples of each.	**Practical** In the sports covered in this half term pupils will: - develop their ability to perform all core and some of the advanced skills - skills will be performed consistently to a very good standard of accuracy, control and fluency - display the physical fitness required to perform effectively - regularly make the correct decisions required to perform in a range of situations **Theory** They will know: - The four key principles of training - The 7 methods of training - Stages of an effective warm up and cool down They will be able to: - Apply these names to physical activity/sporting examples. - Answer past exam questions on the principles of training, methods of training and warm ups/cool downs.
Triple Science	Students will study the AQA topic: Organisation. This is only a brief summary and more detail about what your child should be able to do can be found at: https://www.aqa.org.uk/subjects/science/gcse/biology-8461	**Students will know about:** • The different levels of organisation found in living things. The focus will be on the digestive, circulatory and respiratory systems in humans, and the role of enzymes in metabolism. **Students will be able to:** • Carry out food tests. • Investigate the effect of changing a named factor on the rate of enzyme activity. • Apply their knowledge to exam practice questions to demonstrate the breadth of skills required for GCSE.

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	Students will study the AQA topic: Bonding, structure and the properties of matter. This is only a brief summary and more detail about what your child should be able to do can be found at: https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462	**Students will know about:** • How different types of particle are chemically bonded together and how this affects the properties of the material in question. **Students will be able to:** • Use data provided about the properties of an unknown substance to define the type of chemical bonds that hold its particles in place. • Apply their knowledge to exam practice questions to demonstrate the breadth of skills required for GCSE.
	Students will study the AQA topic: Energy This is only a brief summary and more detail about what your child should be able to do can be found at: https://www.aqa.org.uk/subjects/science/gcse/physics-8463	**Students will know about:** • How energy is stored and transferred in a variety of different situations. **Students will be able to:** • Calculate the specific heat capacity of an unknown material. • Apply their knowledge to exam practice questions to demonstrate the breadth of skills required for GCSE.