



Curriculum Guide

Key Stage 3

Years 7 & 8

September 2022-2023

Mr G Fairchild (Assistant Head)



Contents

Introduction	4
The Reading Way – Graduate profile	5
Art – Year 7	6
Art – Year 8	7
Biology – Year 7	8
Biology – Year 8	10
Chemistry – Year 7	12
Chemistry – Year 8	13
Classics – Year 7	14
Classics – Year 8	16
Computer Science – Year 7	18
Computer Science – Year 8	20
Design and Technology – Years 7 and 8	22
Drama – Year 7	28
Drama – Year 8	29
English – Year 7	30
English – Year 8	31
Floreat – Year 7	32
Floreat – Year 8	33
French – Year 7	34
French – Year 8	36
Geography – Year 7	38
Geography – Year 8	39
German – Year 7	41
German – Year 8	42
History – Year 7	43
History – Year 8	45
Mandarin – Year 7	47



Mandarin – Year 8	48
Mathematics – Year 7	49
Mathematics – Year 8	51
Music – Year 7	53
Music – Year 8	54
Physical Education – Year 7 and 8	55
Physics – Year 7	56
Physics – Year 8	58
PSHE – Year 7	60
PSHE – Year 8	61
Theology and Philosophy – Year 7	62
Theology and Philosophy – Year 8	63
Spanish – Year 7	64
Spanish – Year 8	65



Introduction

Dear Parents,

In order to keep you fully informed about our curriculum, we have compiled a list of the topics which your son is expected to cover in each of his subjects in Years 7-8.

Years 7-8 are a foundation upon which future academic excellence is built. The broad base provides ample opportunity to develop the necessary skills and appetite for GCSEs whilst simultaneously giving the space for enrichment both within and outside of academic subjects. A strong sense of community is built within form groups, and a healthy sense of competition encourages excellence.

The academic curriculum is of crucial significance because of the very nature of Reading School as an academically selective school. However, the character curriculum is equally important in order to produce active, responsible citizens through the nurturing of integrity, citizenship, bodily/mental health and leadership.

Here are some of the ways in which you could help your son develop as a successful learner:

- Create a comfortable learning environment at home and establishing good working habits;
- Engage him in conversations about his progress at school and support him in overcoming obstacles to learning e.g. time management;
- Provide opportunities to question and try out new activities;
- Encourage him to read for a range of purposes.

We at Reading School passionately believe in Academic Excellence and Building Good Men, recognising that the two are inherently intertwined, and we trust you support your son and the school in achieving those two aims.

Yours faithfully,



Mr G Fairchild
Assistant Headteacher (Quality of Education)
Reading School

T: 0118 9015600
E: gfairchild@reading-school.co.uk



The Reading Way – Graduate profile

This illustrates how the Reading Way is linked to the school values of Excellence, Integrity, Leadership and Community.

Via Redingensis	Our Graduates	Competencies
Excellence		
KS3 Imaginative: What is possible for me this year? KS4 Accountable: What do I feel is expected of me this year? KS5 Inquisitive: What more do I hope to do this year?	Men of excellence who aim high and develop the ambitions that enable dreams to be achieved. They strive to achieve the best they can in all they do through curiosity, perseverance, and reflection, while their feet remain firmly on the ground.	<ul style="list-style-type: none"> • Reveal creativity and adaptability in exhibiting the competencies required to succeed in their global future • Strive for achievement based on talent, ambition & curiosity in the academic sphere, cultural endeavours & sport • Demonstrate sustained high performance accompanied by personal development such that academic excellence is married to well-being • Understand the importance of aspiring to the very best • Seek to hold themselves to account, and fulfil their potential for the benefit of others
Integrity		
KS3 Honest: Who do I hope to become this year? KS4 Positive: What do I hope to achieve through my opportunities this year? KS5 Courageous: What is my mission this year?	Men of integrity who are authentic and earn respect. They are true to themselves, they put their heart and soul into everything, and they can be trusted to do the right thing.	<ul style="list-style-type: none"> • Sustain a positive attitude throughout their endeavours • Become champions of character and champions of change • Demonstrate courage, self-discipline, and initiative • Understand the importance of honesty • Seek to align their actions, words and goals with our shared values
Leadership		
KS3 Collaborative: How do I hope to fit in this year? KS4 Considerate: How do I hope to care for others this year? KS5 Generous: What can I give this year?	Men of leadership who collaborate for the common good and work to bring out the best in all of us. They show a spirit of commitment allied to a dynamic sense of purpose, and they are dedicated to working with and for others through teams and organisations.	<ul style="list-style-type: none"> • Trust in and enhance each other's abilities and expertise • Focus on continuous improvement • Demonstrate accountability complemented by a sense of compassion and generosity of spirit • Provide service that benefits the school, the community, and the world
Community		
KS3 Receptive: What do I hope to learn about myself this year? KS4 Open: How will I show that I'm willing to share big ideas this year? KS5 Outward Facing: What lies beyond for me this year?	Men of community who build a local body with an international heart that nurtures social mobility, growth, and lifelong learning from the best possible sources of expertise and wisdom.	<ul style="list-style-type: none"> • Develop their experiences beyond the frontiers of their own context • Build a network of partnerships to drive best practice and develop deep pride in their school and broader community • Demonstrate an outward-facing and international outlook and understand the need to be committed to learning from others

Art – Year 7

Topics	Skills and Knowledge
<ul style="list-style-type: none"> Emergence Project designed to be a foundational introduction to key skills used in Art at KS3. Process orientated with refinement over time. Food Project designed to explore food and drink and the packaging it can come in. Pupils considering favourite foods, issues surrounding healthy/unhealthy eating or food production. Landscape Project exploring different approaches to representing the landscape, whether urban or rural. 	<ul style="list-style-type: none"> Objectives for projects are shared with pupils at the start of the topic; pupils self-assess their competence and confidence at the start and end of each project, before identifying one area to particularly improve their practice. Pupils are encouraged to explore a rich range of media, materials and techniques. They solve problems themselves, develop confidence and skills in investigation and experimentation, and develop ideas through handling and manipulating materials, media, tools and technologies. Emphasis is put on the process of making - the gaining of skills, knowledge and understanding - rather than purely on the outcome. Projects are scaffolded so that as learners become more confident and skilful, they are given more choices in terms of how they develop outcomes, or which artist/ maker/ designer they wish to explore further. Learners are supported to take creative risks and encounter challenge and indeed failure, so that they might learn coping strategies when not all goes well.

Content

Drawing imaginatively, drawing for accuracy from observation, drawing for communication, scientific drawing, how to sketch (and not press too hard), critical reflection, colour theory and practice (primary/ secondary/ tertiary /complementary, tint /shade /tone, warm/ cool), frottage, collage, measuring, cutting and sticking, photography (macro, focal point, lighting, sharpness), presentation of work, composition, mark making, texture, graffiti, line weight, pencil grading, tonal variation, mixing/blending and effective application of: colour pencil, oil pastel, chalk pastel, biro/fineline, watercolour; research sourcing, contemporary and historical critical references, introduction to perspective (one-point, two-point perspective), experimental drawing approaches (non-dominant hand, blind contour, time limited), presentation of work, composition

Assessment

- Pupils complete a baseline assessment at the start of the year, holistically looking at how well learners use and handle a range of media sensitively, record ideas and observations appropriately, and produce their own work taking inspiration from other artist/designer/makers.
- Critical dialogues between staff and pupils pitched at level appropriate to ability and understanding of individual pupil.
- Staff visually assess works in progress and provide diagnostic feedback.
- Individualised timely verbal feedback given to pupils on how they can improve their work, either on works in progress or as feedback on homework.

Additional Information

- Homework is set on a regular basis in forms that are appropriate to the project at hand; these could involve pupils making their own artworks, collecting materials, finishing off incomplete work, or researching critical references for further use in lessons.
- We encourage learners to regularly visit galleries and museums to see a broad range of art, craft and design in the wider world.

Art – Year 8

Topics	Skills and Knowledge
<ul style="list-style-type: none"> GCSE-style Project designed to give greater scope to pupils to engage those artists who are sure, or unsure as to whether they wish to take Art for GCSE. Presented alongside GCSE options presentation, project gives increased options to learners, with less of a teacher led-approach; the project is structured to cover the GCSE assessment objectives, so that artists gain an understanding of what GCSE Art would be like. Identity Project designed to explore identity looking at portraiture and beyond, for example personal interests, cultural identities, with a personal outcome that offers choices in terms of content requirements. Design For Purpose: Books Project focused around book cover design, working to a design brief. Pupils create new cover designs for (favourite) books, looking at the work of others, exploring links between book genres and cover design, and typography in regards titles/lettering. Outcomes scaled to book dimensions, to enable it to be wrapped around book. 	<ul style="list-style-type: none"> Objectives for projects are shared with pupils at the start of the topic; pupils self-assess their competence and confidence at the start and end of each project, before identifying one area to particularly improve their practice. Pupils are encouraged to explore a rich range of media, materials and techniques. They solve problems themselves, develop confidence and skills in investigation and experimentation, and develop ideas through handling and manipulating materials, media, tools and technologies. Emphasis is put on the process of making - the gaining of skills, knowledge and understanding - rather than purely on the outcome. Projects are scaffolded so that as learners become more confident and skillful, they are given more choices in terms of how they develop outcomes, or which artist/ maker/ designer they wish to explore further. This choice-based system becomes more evident as we move through the course. Learners are supported to take creative risks and encounter challenge and indeed failure, so that they might learn coping strategies when not all goes well.

Content

Drawing imaginatively, drawing for accuracy from observation, drawing for accuracy from observation with a portraiture focus, drawing for communication, design development and iteration, composition, cutting and sticking, mixing/blending and effective application of: colour pencil, oil pastel, chalk pastel, biro/fineline, watercolour; contemporary and historical critical references, critical reflection and writing, presentation for exhibition (interpretation during pop-up exhibition), presentation of work, composition, photography.

Assessment

- Pupils complete a baseline assessment at the start of the year, holistically looking at how well learners record ideas and observations appropriately, and produce their own work in response to a given theme.
- Critical dialogues between staff and pupils pitched at level appropriate to ability and understanding of individual pupil.
- Staff visually assess works in progress and provide diagnostic feedback.
- Individualised timely verbal feedback given to pupils on how they can improve their work, either on works in progress or as feedback on homework.

Additional Information

- Homework is set on a regular basis in forms that are appropriate to the project at hand; these could involve pupils making their own artworks, collecting materials, finishing off incomplete work, or researching critical references for further use in lessons.
- We encourage learners to regularly visit galleries and museums to see a broad range of art, craft and design in the wider world.

Biology – Year 7

Topics	Skills and Knowledge
Cells, cell functions and the characteristics of living things	

Cells

- The fundamental units of living organisms are cells, which may be part of highly adapted structures including tissues, organs and organ systems, enabling living processes to be performed effectively
- The functions of the parts of the cell
- The similarities and differences between
- Plant and animal cells
- The hierarchical organisation of multicellular organisms: from cells to tissues to organs to systems to organisms
- Development of Scientific thinking
- Experimental skills and strategies
- Using scientific terminology
- Scientific literacy
- Applying mathematical skills
- Working safely
- Practical skill development

Reproduction

Genetics and Homeostasis

- Heredity as the process by which genetic information is transmitted from one generation to the next
- Reproduction in humans including the structure and function of the male and female reproductive systems, menstrual cycle, gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta
- Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal
- Using a microscope
- Preparing slides
- Measuring under a microscope
- Table drawing
- Graph drawing
- Numeracy
- Understanding applications and implications of science
- Modelling
- Communicating and collaborating

Variation, classification and keys

Genetics and Biodiversity

- The variation between individuals within a species being continuous or discontinuous, to include measurement and graphical representation of variation
- The variation between species and between individuals of the same species meaning some organisms compete more successfully, which can drive natural selection
- Planning and evaluating experiments
- Ethical use of living organisms
- Judging misrepresentation



Topics	Skills and Knowledge
Ecology	

Ecosystems and Biodiversity

- Living organisms may form populations of single species, communities of many species and ecosystems, interacting with each other, with the environment and with humans in many different ways
- Living organisms are interdependent and
- Show adaptations to their environment
- The interdependence of organisms in an ecosystem, including food webs and insect pollinated crops
- Sampling of populations

Assessment

- Homework every topic
- Spelling tests of scientific words by topic
- Usually one or two graded pieces of work per topic
- End of topic test
- End of year assessment
- Practical skills are informally assessed with feedback given



Biology – Year 8

Topics	Skills and Knowledge
Photosynthesis	
Biochemistry	
<ul style="list-style-type: none">• The reactants in, and products of, photosynthesis, and a word summary for photosynthesis• The dependence of almost all life on Earth on the ability of photosynthetic organisms, such as plants and algae, to use sunlight in photosynthesis to build organic molecules that are an essential energy store and to maintain levels of oxygen and carbon dioxide in the atmosphere• The adaptations of leaves for photosynthesis• The role of leaf stomata in gas exchange in plants	<ul style="list-style-type: none">• Development of Scientific thinking• Experimental skills and strategies• Analysis and Evaluation• Using scientific terminology• Scientific literacy• Applying mathematical skills• Working safely• Using a microscope• Preparing slides
Respiration	
Biochemistry	
<ul style="list-style-type: none">• Aerobic and anaerobic respiration in living organisms, including the breakdown of organic molecules to enable all the other chemical processes necessary for life• A word summary for aerobic respiration• The process of anaerobic respiration in humans and micro-organisms, including fermentation, and a word summary for anaerobic respiration• The differences between aerobic and anaerobic respiration in terms of the reactants, the products formed and the implications for the organism• Gas exchange systems• The structure and functions of the gas exchange system in humans, including adaptations to function• The mechanism of breathing to move air in and out of the lungs, using a pressure model to explain the movement of gases, including simple measurements of lung volume• The impact of exercise, asthma and smoking on the human gas exchange system	<ul style="list-style-type: none">• Table drawing• Graph drawing• Numeracy• Understanding applications and implications of science• Modelling• Issues and ethics• Planning and evaluating experiments• Presenting a range of views• Understand and use SI units and IUPAC chemical nomenclature• Use and derive simple equations and carry out appropriate calculations
Senses and the skeleton	
Communication	
<ul style="list-style-type: none">• The structure and functions of the human skeleton, to include support, protection, movement and making blood cells	<ul style="list-style-type: none">• Select, plan and carry out the most appropriate types of scientific enquiries to test predictions• Identifying independent, dependent and control variables



Topics	Skills and Knowledge
--------	----------------------

- Biomechanics – the interaction between skeleton and muscles, including the measurement of force exerted by different muscles
- The function of muscles and examples of antagonistic muscles
- The senses – the eye and ear structure

Microbes

Health and disease

- The structure and reproduction of microorganisms
- Defence against disease

Assessment

- Homework every topic
- Spelling tests of scientific words by topic
- Usually one graded piece of work per topic
- End of topic assessment
- End of year assessment
- Practical skills are informally assessed with feedback given



Chemistry – Year 7

Topics	Key Knowledge
Working scientifically Including lab safety	<ul style="list-style-type: none">Describe how scientists develop an idea into a question that can be investigatedIdentify independent, dependent, and control variables
Separation Techniques	<ul style="list-style-type: none">Select appropriate separation techniques for different mixturesUse data to predict how much solute is dissolved in a solution or the mass of a solutionExplain how distillation worksAnalyse chromatograms to identify substances in mixtures
Particle model and States of Matter	<ul style="list-style-type: none">Use the particle model to explain why different materials have different propertiesUse ideas about particles to explain the properties of a substance in its three statesDiscuss the change in particle movement during melting and freezingUse the particle model to explain diffusion
Elements, atoms, and compounds	<ul style="list-style-type: none">Compare the properties of one atom of an element to the properties of many atomsExplain why a compound has different properties to the elements in itWrite and interpret chemical formulae
Acids and Alkalis	<ul style="list-style-type: none">Compare the properties of acids and alkalisDescribe differences between concentrated and dilute solutions of an acidDescribe how pH changes in neutralisation reactionsPredict the salts formed when acids react with metals or bases
Periodic table	<ul style="list-style-type: none">State what observations are needed about materials to decide if they are metal or non-metalCompare patterns in properties in the groups and periods of the Periodic TableDescribe the physical and chemical properties of the elements in groups 1, 7 & 0.

Skills

- | | |
|---|--|
| <ul style="list-style-type: none">Thinking scientificallyUsing modelsDrawing accurate diagramsUsing scientific terminology | <ul style="list-style-type: none">Understanding the applications of scienceFurther development of practical skillsWorking critically with evidenceCollaborating and communicating |
|---|--|

Assessment

- Assessment will be in the form of end of topic tests and written assessments completed during lessons. The student's ability to plan, carry out and evaluate practical work in safe and accurate manner will be also be assessed.



Chemistry – Year 8

Topics	Key Knowledge
Chemical reactions	<ul style="list-style-type: none">• Write word equations to represent chemical reactions• Predict products of combustion reactions• Use a pattern to predict products of decomposition reactions• Explain conservation of mass in chemical reactions• Describe the characteristics of exothermic and endothermic changes
Metals (and materials)	<ul style="list-style-type: none">• Compare the reactions of different metals with oxygen• Compare the reactions of metals with water• Use the reactivity series to explain displacement reactions• Use reactivity series to decide which metals can be extracted from their ores by heating with carbon• Interpret data on polymers to decide on the best polymer for a given purpose, justifying the choice
Rocks	<ul style="list-style-type: none">• Describe properties of the different layers of the Earth's structure and the composition of the atmosphere• Explain how sedimentary rocks are made and how igneous and metamorphic rocks form• Use the rock cycle to explain how the material in rocks is recycled• State the changes in levels of carbon dioxide over time (carbon cycle)• Explain the causes of global warming and suggest way it impacts on the Earth
New Technology	<ul style="list-style-type: none">• Explain how the properties of nanoparticles make them suitable for their uses• Explain advantages and risks associated with the use of nanoparticles• Describe the advantages and disadvantages of new vehicle fuels
Forensic science	<ul style="list-style-type: none">• Describe different methods to separate the components in a mixture• Plan an experiment to test whether unknown substances are acids or alkalis• Suggest possible strengths and weaknesses of scientific evidence• Suggest further questions that would need to be answered where scientific evidence is inconclusive

Skills

- Thinking scientifically
- Using models
- Drawing accurate diagrams
- Using scientific terminology
- Understanding the applications of science
- Further development of practical skills
- Working critically with evidence
- Collaborating and communicating

Assessment

- Assessment will be in the form of end of topic tests and written assessments completed during lessons. The student's ability to plan, carry out and evaluate practical work in safe and accurate manner will be also assessed.



Classics – Year 7

Topics	Skills and Knowledge
Chapter 1	
<ul style="list-style-type: none">• Present tense <i>porto</i>• First and Second• Declension nominative and accusative singular and plural• <i>Sum</i>• Prepositions with accusative• Chapter 1 vocabulary	<ul style="list-style-type: none">• Learn new language• Learn and understand new elements of language (e.g. present tense, principal parts, noun cases)• Memory recall
Chapter 2	
<ul style="list-style-type: none">• First and Second declension genitive, dative and ablative singular and plural• Prepositions with ablative• More second declension nouns, including the neuter• Second, Third and Fourth conjugation verbs – present tense• The infinitive• Principal parts• Time expressions• Chapter 2 vocabulary	<ul style="list-style-type: none">• Translation skills – application of knowledge; analysis; logic and sequencing• Expanding vocabulary – derivations; links with MFLs• Start to develop skills of analysis, interpretation and evaluation when reading/ discussing Classical Civilisation topics• Group / project work on Engineering and Roman Army
Chapter 3	
<ul style="list-style-type: none">• Imperfect tense• <i>Possum</i>• Adjectives• Imperative• Vocative case• Time adverbs• Chapter 3 vocabulary	
Assessment	
January	
<ul style="list-style-type: none">• Grammar• Latin to English sentences• Derivations	
Summer exam:	



- Pupils are examined on the language content of Chapters 1 – 3 (vocabulary from these chapters must be learnt for the summer exam).
- Mythological on Olympian deities will also be tested

Additional Information

- Vocabulary and grammar are regularly tested throughout the year.
- Activity Day – Term 6 (Roman engineering and the Roman Army)
- Mythology includes the creation myth, Jupiter, Neptune, Pluto, Juno, Ceres Vesta, Mars, Minerva, Venus, Apollo, Vulcan, Diana, Theseus and the Minotaur, Perseus and Medusa, Jason and the Golden Fleece, 12 Labours of Hercules.
- Roman background topics include:
 - The Trojan War (The Birth of Paris, The Judgement of Paris, The Wrath of Achilles and the Deaths of Heroes, The Trojan Horse and the Fall of Troy)
 - Aeneas and the Origins of Rome (Prima Porta, Aeneas and Creusa, The Journey Begins, The Trojans depart from Crete, Two Contrasting Receptions, Scylla and Charybdis)



Classics – Year 8

Topics	Skills and Knowledge
Chapter 4	
<ul style="list-style-type: none">• Perfect tense• Principal parts (2)• Third declension nouns• Direct questions• Mixed conjugation verbs• Time expressions (2)• Personal pronouns and possessive adjectives (1)• Superlatives• Chapter 4 vocabulary	<ul style="list-style-type: none">• Learn and understand more complicated and new elements of language (e.g. noun and adjective agreements; passives)• Memory recall• Translation skills – application of knowledge; analysis; logic and sequencing• Expanding vocabulary; derivations and grammar linked with MFLs (particularly French, German and Spanish)
Chapter 5	
<ul style="list-style-type: none">• Future tense• Time adverbs• Linking sentences• Personal pronouns and possessive adjectives (2)• Adjectives (3)• Adverbs from adjectives• Third person pronouns (1): is, ea, id• Third person pronouns (2): se• Third person possessives: eius and suus• Chapter 5 vocabulary	<ul style="list-style-type: none">• Start to develop skills of analysis, interpretation and evaluation when reading/ discussing Classical Civilisation topics
Chapter 6	
<ul style="list-style-type: none">• Pluperfect tense• Because and although: quod and quamquam• The relative pronoun and relative clauses: qui, quae, quod• The interrogative pronoun: quis? quid?• Numerals• Time expressions: 'time within which'• I go: eo• Prefixes and compounds• Time clauses: ubi and postquam• Chapter 6 vocabulary	



Assessment

November and January

- Entry Level Latin exam (November and January)

Summer exam:

- Requires knowledge of all language points covered this year.
- Vocabulary and grammar tests given throughout the year.

Additional Information

Roman social topics include:

- Slaves, Roman town house, patriarchal society, citizenship, leisure (baths, theatre, chariot races, gladiators), Project on Pompeii

Roman background topics include:

- Aeneas and the Origins of Rome continued (Danger in Sicily, Storm and Prophecy, Dido and Aeneas), Aeneas and the Roman 'future' (The Sibyl and the Underworld, The eating of tables, The future site of Rome, A Final Duel, From Aeneas to Romulus (Romulus and Remus, The foundation of Rome, The Sabine Women, The Ascension of Romulus, The early kings of Rome (The reluctant ruler; Numa, thunderbolts and fish; Servius Tullius: flaming child, Tarquinius seizes the throne; Tarquinius Superbus buys some odd books; Tarquinius Superbus gives some advice; Tarquinius Superbus sends his sons to Delphi; The birth of the Roman Republic



Computer Science – Year 7

Topics	Skills and Knowledge
E-Safety	<ul style="list-style-type: none">Students evaluate the trustworthiness of online information.
Website development	<ul style="list-style-type: none">Students focus on the core elements that websites contain; HTML tags and structure with CSS styling. They will consider key features that make them effective.A final project will provide the opportunity for students to create their own cross-curricula website, incorporating topical research with potential for skills extension.
Data, searching and sorting	<ul style="list-style-type: none">Consideration of how data is stored as binary is the precursor to an unplugged algorithmic exploration of searching and sorting algorithms.
Programming with Python	<ul style="list-style-type: none">Students focus on the fundamental concepts of programming:<ul style="list-style-type: none">SequenceSelectionIterationAlgorithms
File reading and writing	<ul style="list-style-type: none">The writing and reading of text files is implemented using Python, extending to CSV files and potentially further onto structured data and the use of SQL with sqlite3.Students appreciate the importance of syntax, developing their computational thinking abilities
Extension: Micro:bit programming with micro:python	<ul style="list-style-type: none">Python coding skills will be extended for use with the Microbit hardware, which includes input/output pins and accelerometer to create more complex programs.

Assessment

- For all projects in year 7 students complete a blog detailing the progress they make within each lesson. The blog ensures the students develop their meta-cognition and reflect on their learning process and progress.
- Student blogs will be assessed every half term with feedback.
- Homework will be set every two weeks with one homework per half- term being graded with teacher feedback provided. Additionally, a knowledge-based test will be set each half-term.

Additional Information

- The curriculum is designed to initially develop students understanding and confidence in using the school network and cloud-based software tools. Building on the website technologies project, students' progress to develop their programming skills using Python.
- Students in year 7 will sit an end of year exam, covering any aspect of the projects in this current year. Assessment of key aspects will occur each half-term, with the inclusion of reflection and feedback from lesson progression, homework and topical tests.



- Homework will be set every two weeks and will include research tasks, that feedback into lesson activities.
 - A check is made on whether homework has been completed and on the quality of the work. This contributes to assessing the work ethic, enthusiasm, effort and organisation being shown by each student. Peer and self-evaluation may be used to extend and deepen an awareness of the content and purpose of learning.
 - Opportunities for all students to become involved in various clubs at lunchtime that develop their interest in technology are on offer, with teachers supporting any activity students would like to learn.
 - It would be useful for students to have access to computing facilities at home although this is not a prerequisite and homework can be adjusted for students that do not have.
-



Computer Science – Year 8

Topics	Skills and Knowledge
E-Safety refresh	<ul style="list-style-type: none">• Reminder to keep a positive digital profile
Computer Hardware	<ul style="list-style-type: none">• Students research and report on all the major components of a computer, including: CPU, Display, Power, Graphics and Storage.
Electronics Taster	<ul style="list-style-type: none">• A summary of logic and symbols used.
Networking	<ul style="list-style-type: none">• Provide an overview of networking hardware, connectivity and protocols.
Python programming with a PyGame graphical user interface	<ul style="list-style-type: none">• The provision of an advanced coding experience with Python is planned. A graphics display PyGame module is used with the development of specific algorithms to process the following:<ul style="list-style-type: none">• Event handler• Logical conditions• Game loop processing• Graphical commands <p>Students are scaffolded in extending their independence and skills in analysing and evaluating algorithms for the purpose of implementing a Snake game.</p> <p>The use of more complex Python commands provides the opportunity for students to extend their abilities in coding with the use of conditions, functions and classes.</p>
Cyber Security	<ul style="list-style-type: none">• Developing aspects of E-Safety on the themes of data, social engineering, BOTs and methods of preventing cybercrime

Assessment

- Students will be assessed on their reflection and evaluation of progress in each lesson by reporting in a Blog style PowerPoint. Homework will be set that incorporates research and set tasks.
- The blog and one homework will be formally assessed each half-term, with additional homework feeding back into the coding project development and being assessed within the Blog.
- In the hardware project homework will be focused on developing research skills and an in-depth knowledge of computer hardware.
- Formative assessment and regular feedback will be provided in all projects

Additional Information

The curriculum is designed as a foundation for the AQA (8525) GCSE in Computer Science qualification. The aim is to give students a taste of the skills required at GCSE, which will enable them to make an informed decision when choosing their GCSE options towards the end of year 8.



Students in year 8 will sit an end of year exam, covering any aspect of the projects in this current year. Assessment of key aspects will occur each half-term, with the inclusion of reflection and feedback from lesson progression, homework and topical tests.

Homework will be set every two weeks and will include research tasks, that feedback into lesson activities.

A check is made on whether homework has been completed and on the quality of the work. This contributes to assessing the work ethic, enthusiasm, effort and organisation being shown by each student. Peer and self-evaluation may be used to extend and deepen an awareness of the content and purpose of learning.

Opportunities for all students to become involved in various enrichment clubs at lunchtime and in the afternoon that develop their interest in technology are on offer, with teachers supporting any activity students would like to learn.

It would be useful for students to have access to computing facilities at home although this is not a prerequisite and homework can be adjusted for students that do not have.



Design and Technology – Years 7 and 8

There are 3 strands to our Design & Technology provision:

- **ELECTIVES:** The academic curriculum is ably supported by a range of bespoke timetabled 'Electives' which purposefully enrich students' understanding of the principles of Design & Technology. The balanced diet means that each student receives D&T-informed provision throughout Years 7-10.
- **WIDER CURRICULUM:** Existing curriculum subjects purposefully integrate relevant elements of the Design & Technology curriculum into their teaching
- **CORE:** We are further supplementing the above with 'drop-down days' in the Summer term of each year, in which all students in the year complete a range of 'design-make-evaluate' tasks based on a project. Examples of these are included below.

Furthermore, all Year 9 and 10 students in KS4 not only have the opportunity to study Electronics as a GCSE qualification, but every single student has 'Core' Electives on both 'Technology & Enterprise' and 'Life Skills', which ensures that the Design & Technology Curriculum remains embedded beyond Key Stage 3. The current KS4 elective provision contributing to our delivery of Design & Technology is as follows:

Real Life Problems: Wiring Plugs to Car Repair	Robotics
Cooking & Nutrition	Launchpad
First Aid Skills	Formula 24 Car
STEAM Team	Product Design
Embedded Systems Coding	Young Enterprise
Electronics	Music Technology
Med Tech Challenge	The Great Outdoors

At KS5, students in our Future Stories programme embody the final stage of our 'Learn > Lead > Serve' philosophy by supporting local primary school students to successfully participate in Design & Technology-related activities in their schools.

DESIGN:

- use research and exploration, such as the study of different cultures, to identify and understand user needs
- identify and solve their own design problems and understand how to reformulate problems given to them
- develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations
- use a variety of approaches [for

Core:

See projects below.

Electives:

The 'gold standard' for Design is the 'Product Design' elective, which encourages students to explore the real-world role of design in tackling the impact of global trends through its emphasis on design thinking, problem solving and iteration. Exploring different human-centred design methodologies and applying them to real life, the students design a solution that answers a need, share their idea creatively through a range of methods (photographs, technical drawings, models, mock-ups, text, links to websites and quotes from research).

In the 'Robotics' elective, students design LEGO weapons to win a 'Robot Wars' style sumo competition by disabling their opponents. This competitive element continues into KS4, where the 3 properties in focus are speed, strength and agility of their robots, as they pull weights and manoeuvre around a maze.

A geography elective uses Geographical Information Systems (GIS) to connect data to a map, integrating location data (where things are) with all types of descriptive information (what things are like there). These are used to explore the role that communication of design through infographics can provide insights into disease pandemics.

A bicycle-focussed elective uses the professional computer programme 'Sketchup' to learn the basics of 3D modelling, to then design adapted features for their



example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses

- develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools

bicycle, based upon a specification that they have developed in response to the needs of a particular group (eg. Children / elderly)

A retro-coding elective culminates with a 'Dragons Den' style activity to market and promote their retro-inspired game in a manner appropriate for users.

Wider Curriculum:

Both English and Drama put the audience at the centre of what students do, considering the 'end user' when writing a script/newspaper article/advert and when portraying a character. Both subjects use oral and digital presentations to communicate their ideas, with clarity of communication vital. Responding to a text is a skill taught in both subjects, where innovation and creativity are valued and encouraged.

In Biology, creativity of design ideas is central to considering adaptations of living organisms to identified needs/problems, demonstrated when students are asked to design a seed that can fall as slowly as possible.

The art curriculum is about communicating ideas, and thus teaches students the design process, as students are taught to annotate the work of others and their own sketches, both refining the work over time and developing the idea itself. This is ably illustrated in the 'food' project that students undertake, where food and drink packaging is designed.

Computer Science's coverage of elements of the Design & Technology curriculum is illustrated in the design of UI and code structure, including the use of templates, which provide the foundation for implementation. Indeed, a systems development lifecycle (SDLC) is often utilised in approached to coding projects. The essential analysis of requirements and feasibility, seeking to determine the most effective tools and skills, would be applicable for any D&T project.

Geography considers biomimicry when comparing the effectiveness of natural and human strategies for dealing with atmospheric and tectonic hazards, with students asked to design their own solutions to identified problems, which must meet the varied needs of a range of stakeholders or 'users'.

Chemistry students are not only adept at planning criteria-informed experiments that must meet exacting standards, as in a D&T project, but a focus on new technologies enables them to explain how the properties of nanoparticles make them suitable for their varied uses.

MAKE:

- select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture
- select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties

Core:

See projects below.

Electives:

Inspired by Reading Bike Kitchen, a bicycle-focussed elective provides the opportunity for students to learn about the appropriate and purposeful use of tyre levers, pumps, spanners and allen keys to maintain and repair bicycles. Students 'own' their bicycle and dismantle it, before putting it back together correctly. Students discuss the rationale for material choices, with reference to properties from ductility to malleability.

In an electronics elective, the design of a dice circuit is provided, and students are tasked with the development their practical soldering skills, prior to making their own electronic dice using carefully selected electronics components.

In the 'cooking' elective, students become adept at using a variety of kitchen utensils, from safe knife skills through to selecting the appropriate utensils for cooking particular dishes. The selection of ingredients is informed by discussions about how their properties (taste, texture, smell, shelf-life, appearance) will react to heat/cold, seasoning and combination with other flavours.



The 'Bushcraft' elective teaches students how to chop wood safely using axes, and light fires using firesteels.

Wider Curriculum:

In Drama, the body and voice are the materials, and their properties are critically examined, cared for and manipulated to make reference to, understand and experiment with design fundamentals such as scale, shape, colour and texture. Students are also taught the principles of lighting, sound and set design.

The Chemistry curriculum considers the selection of appropriate separation techniques for different mixtures, as well as describing the process of corrosion and its impact on the properties of functional components.

All 3 Sciences expect students to be able to select appropriate equipment, handle and deploy it safely, recognising and minimising the risks, as with any practical D&T project.

In Art, handling and manipulating materials, media, tools and technologies are a vital stage in developing the ideas that are to be communicated. The breadth of components/ingredients increases over time.

EVALUATE:

- analyse the work of past and present professionals and others to develop and broaden their understanding
- investigate new and emerging technologies
- test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups
- understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

Core:

See projects below.

Electives:

In the bicycle elective, we explore the evolution of the bicycle from the 'Laufmaschine' that emerged from the shortage of horses in the 19th Century, through to the democratisation of the bicycle with the invention of the rubber tyre and spokes. We consider the use of carbon fibre as a material and wind tunnels as testing environments.

The retro-coding elective researches and analyses retro games such as Tetris and Pacman, before using an iterative design process to build their own retro-inspired game, crucially gaining peer feedback on their prototype code through thorough testing.

The Product Design elective teaches students about the work of future-looking designers and innovators. Students speak to people to properly understand the problem and consider how their chosen theme (Adapt / Care / Disrupt) relates to people and places locally. Their submission for the Victoria & Albert Museum's competition must have been iteratively shaped by feedback, having tested their ideas with real people. A central element of the judging process is the extent to which students have taken into account the environmental impact of their idea.

Wider Curriculum:

In all sciences, the development and replacement of scientific ideas over time is integral to the curriculum, with students taught the importance of 'thinking like a scientist', with the design-make-evaluate cycle embedded with reference to different stages of knowledge-making and the evolution of ideas over time.

In Art, a central project is one where students create new cover designs for their favourite books. Starting by looking at the work of others, they then explore links between book genres and cover design, before considering typography with regards to titles/lettering. Outcomes are scaled to book dimensions, to enable it to be wrapped around book, once a prototype has been tested.

In PE, students evaluate the use and impact in sport of emerging equipment, clothing, footwear and technology. Ranging from swimsuits to spikes, VAR and Hawkeye to performance-enhancing drugs, both the functional, ethical and



sustainability elements of Design & Technology are central to understanding how and whether these innovations should function.

Drama students analyse the social, cultural and historical contexts of Edgar Allen Poe's short stories, in order to create effective and appropriate moods within the theatrical conventions of the period in which the text studied was created. This further enables the production of technical needs for the performance, with consideration of the historical lighting and sound technologies of the time.

The iterative element that is central to Design & Technology is taught explicitly in subjects as diverse as English and Computer Science, where the former teaches students how to draft and redraft essays without prejudice, acting on feedback from teachers, while the latter constantly amends, tweaks and runs code. Ethical and environmental aspects of technological waste are considered within the Computer Science curriculum.

The Geography curriculum considers the social, economic, environmental and political impacts of every decision made, from coastal defences that will not sustain beyond 10 years due to their ineffective design given the natural processes at play, to urban wastewater design that inadvertently leads to flooding elsewhere downstream, and the consequences therein. The STEAM links here are persistent.

TECHNICAL KNOWLEDGE:

- understand and use the properties of materials and the performance of structural elements to achieve functioning solutions
- understand how more advanced mechanical systems used in their products enable changes in movement and force
- understand how more advanced electrical and electronic systems can be powered and used in their products
- apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

Core:

See projects below.

Electives:

The retro-coding elective explores BBC Micro Games and students learn how to emulate them and programme them from authentic 1980s magazines. They use Scratch, Python and Py-Game, as well as some original BBC Basic machinery to programme inputs and outputs.

A series of electronics sessions provides the students with an introduction to voltage, current, resistors and LEDs, as well as the 555 timer and the 4017 decade counter chips. The students will learn to read microchip specifications, understand a circuit layout and extend their knowledge of the flow of electricity. Further knowledge on the basics of electronics will be shared with the students to enable them to take on their own projects in the future.

The bicycle elective considers the function of chains, gears and brakes, and the choice of materials that make up these vital components, in particular in the creation of force and forward motion.

The 'Robotics' elective uses LEGO components to introduce students to the basics of robotics. They have to learn how to use the computer module, both for testing and for control via a Bluetooth connection to a mobile phone (at KS4 they begin to use remote functions and sensors too). The focus is on structural integrity of their robot, and the functioning of the motor itself, which gets extended at KS4 as students consider rotational motors in different planes, pistons, gears and their role in transfers of energy.

Wider Curriculum:

The Computer Science curriculum is constantly teaching students about the input-output process, as seen in their development of Python coding skills.

The Classical Civilisations curriculum includes a group project on the effectiveness of Roman engineering in the design of functioning aqueducts and roads.

NUTRITION:

Core:



- understand and apply the principles of nutrition and health
 - cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet
 - become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes
 - understand the source, seasonality and characteristics of a broad range of ingredients
- See project below.
- Electives:**
- In the Cooking and Bushcraft elective, students will plan meals from scratch, including baking bread over an open fire. To do so, they will have selected the correct ingredients, chopped onions safely using teacher-taught knife skills and learnt about the process of monitoring cooking to know when food is properly cooked. They will use skillets, pans and basic utensils proficiently.
- The Cookery elective teaches the principles of a 'successful' meal, considering both aesthetics, taste, colour, texture and nutrition. The concept of heat is discussed when planning its impact on a dish's properties, and the same goes for seasoning, which is planned with impact on taste in mind. Students are taught safe knife skills and learn to use a variety of cooking utensils appropriately, as they create a variety of dishes created from a range of global cultures.
- Wider Curriculum:**
- In Art, the 'food' packaging project asks students to develop their ideas by considering their favourite foods, and the issues surrounding (un)healthy eating.
- In PSHE, students are taught the value of a healthy body for a healthy mind, with a focus on the principles of balanced nutrition, and the dangers of junk food/energy drinks/excess.
- In Geography, students are taught the principles of different UK agricultural systems, ranging from organic to intensive farming, and the benefits for consumers in terms of seasonal availability, size and properties, as well as the disadvantages such as monocultural vulnerability and the use of pesticides/herbicides.

CORE 'Drop Down' Project 1: Mealtimes

- Consider user needs (to include multicultural, age, health issues, and dietary requirements)
- Create specification for successful product
- Evaluate possible packaging designs and materials, given the nature of the food product
- Design packaging with consideration of waste and durability
- Evaluate existing utensil designs, given user needs (disabled/ elderly) and design improvements
- Evaluate current methods for growing food, with particular reference to water use
- Analyse the evolution of food production over time- to include mass production and application of science
- Consider viability of using new/emerging technology (e.g. insects as pollen/ laboratory meat/ micro-irrigation)

CORE: 'Drop Down' Project 2: Independent Living: Support disabled participation in sport

- Consider user needs of disabled teenagers (presentation from Get Berkshire Active)
- Analyse existing options, consider their flaws and get feedback from users
- Create specification for specific product
- Complete SWOLT analysis of possible ideas (avoiding stereotyped solutions by using biomimicry)
- Peer evaluation feedback on ideas against specification



- Design final product using TinkerCAD (following training and practice)
- Create prototype using recycled material

CORE: 'Drop Down' Project 3: Get on Your Bike: Improving a bicycle for a specific user

- One group per small group of students- tools provided to disassemble and reassemble bicycle
- Explain mechanics of design: gearing, braking, wheel spokes/hub and frame shape – identify issues
- Consider the justification of its design in relation to user needs and context- what was the specification?
- Analyze how the product has evolved over time and why (compare Penny Farthing to current road bike)
- Identify material choices and consider their justification relative to alternatives
- Evaluate the material choices with reference to durability, waste, and sourcing
- Designing additional product for bike using Tinker CAD
- Make prototype additional product for bike and evaluate against original specification/ user needs

Assessment

- Self Assessment, Peer Assessment and Teacher Assessment against self-created specifications.
- Formative knowledge checks by teacher

Additional Information

Enrichment Opportunities:

- Visit to Reading College Construction & Motor Vehicles workshops & Visit to Prospect School Workshops
- Visit to the Design Museum in Enrichment Week
- LEGO Masters: National Champions
- Robotics Club



Drama – Year 7

Topics	Skills and Knowledge
Introduction to Drama	<ul style="list-style-type: none">• Use of voice to create character, use of mime to create objects, facial expression and use of body language to communicate emotion and attitude.• All the above to create a character.• Collaboration and cooperation are central to this work.
Non-naturalism	<ul style="list-style-type: none">• Body as prop• Non-verbal communication• Exaggerated performance style• Soundscape• Narration Spoken thought direct address
Info Drama - Using a real-life scenario to create a piece	<ul style="list-style-type: none">• Role play• Using given circumstances to create a plot• Real life scenarios to raise empathy and understanding
Use of space and Text	<ul style="list-style-type: none">• Creation of character from text• Stage configurations and directions• Blocking

Assessment

- Peer assessment by evaluating each other's performance.
- Teacher assessment in feedback following performance.
- Performance of polished piece inspired by 'Baba Yaga and Vasilisa the Beautiful' assessing Focus and Concentration, Character Creation, and Performance Skills.
- Performance of devised piece 'The Adventure' with Performance of devised piece 'The Adventure' with multiple scenes incorporating all elements, assessing Focus and Concentration, Character Creation, and Performance Skills.
- Devised story incorporating specific pieces of information, assessing Focus and Concentration, Character Creation and Performance Skills.
- Performance of scripted extract: 'What theatre Really Is' assessing Focus and Concentration, Character Creation and Performance Skills.

Additional Information

- Teamwork and problem-solving form an integral part of most Drama lessons as the boys always work in groups, they rehearse scenarios and evaluate their own and other's performances regularly, learn from watching their peers and from feedback given and build confidence through assessment work.
- Extracurricular Drama provision: Berserk Productions after school drama club focusing on drama skills and LAMDA examination.

Drama – Year 8

Topics	Skills and Knowledge
Symbolism	<ul style="list-style-type: none"> Exploring different aspects of symbolism and its use in performance Working as an ensemble Using movement sequences to communicate emotion Understanding how the use of music can communicate a specific atmosphere, mood or location
Scripted Assessment	<ul style="list-style-type: none"> Create and sustain a character Work effectively in a group Improve understanding of blocking Use a variety of vocal tones: pitch, pace, pause, accent, volume to create a rounded character Interpret a text for performance
Puppetry	<ul style="list-style-type: none"> Working as an ensemble to group puppeteer Using creativity and innovation in design and realisation of character Demonstrating relevant puppetry skills in performance Focus and concentration Exaggerated performance style Development of skills: gait, posture, facial expressions, body language
Devising	<ul style="list-style-type: none"> Creation of a whole piece of theatre inspired by a stimuli. Collaborating creatively in groups Production of script Production of technical needs for the performance
Additional Information	
<ul style="list-style-type: none"> Extra-Curricular LAMDA training available via Bezerk Productions Many elements of the Yr8 Curriculum give a taste of the expectation and kind of practical work undertaken in the GCSE course, giving boys a clearer picture of what GCSE Drama might look like. 	



English – Year 7

Topics	Skills and Knowledge
All About Me	<ul style="list-style-type: none">Mind mapping; structuring effective paragraphs using topic sentences and connectives.
Transition to Key Stage 3	<ul style="list-style-type: none">Understanding how a writer constructs a character, plot and setting, use of metaphorical languageClose textual analysis.
Intro to Shakespeare	<ul style="list-style-type: none">Shakespeare's use of language; stagecraft; effective openings; setting; and characters
Reading Skills	<ul style="list-style-type: none">Decoding questionsSelecting and retrieving information and understanding meaning through a writer's choice of language
Studying a whole text	<ul style="list-style-type: none">Changes in language over timeAuthor's language choices to convey meaning; constructing characters, setting and plotClose textual analysis.
Myths and Legends	<ul style="list-style-type: none">Descriptive writing skills.Empathy writing skills.
Studying a Play	<ul style="list-style-type: none">Dramatic conventionsUse of language, structure and form to convey meaning.
Poetry	<ul style="list-style-type: none">Defining poetry and its conventionsUse of poetic language, structure and formIntroduction to close textual analysis.
Media	<ul style="list-style-type: none">Defining media; use of codes and symbols; USPs; writing for a specific purpose and audience; understanding persuasion and manipulative language.
Assessment	

- Spelling, Baseline writing test Essay: All About Me
- Crafting a newspaper article for a chosen play. Creating a foul recipe inspired by 'Macbeth'.
- Reading practice papers and showcasing analytical writing skills
- Transforming a classical myth.
- Crafting an additional scene in the style of the writer; Speaking and listening
- Creating a poetry anthology; using different stimuli to inspire original poetry writing
- Constructing an advertising campaign.

Additional Information

- Opportunities for students to become involved in: reading clubs; Reading School Book Festival; visiting author workshops; visiting touring theatre groups; McIlroy extended writing competition.



English – Year 8

Topics	Skills and Knowledge
Gothic Genre	<ul style="list-style-type: none">Defining gothic and its conventions; effective descriptive writing; developing textual analysis
Poetry	<ul style="list-style-type: none">Identifying and applying key poetic techniques using different poetic forms; understanding metre in a range of poems
Media	<ul style="list-style-type: none">Identifying types of media, their purposes and audiences; the use of language; discerning fact and opinion to inform and manipulate; understanding fake news; textual analysis
Detective Fiction	<ul style="list-style-type: none">Defining Detective fiction, its conventions and features; understanding the construction of characters, plot and setting; textual analysis
Non-Fiction	<ul style="list-style-type: none">Defining non-fiction texts and their uses and applications; writing for a specific audience and purpose; developing personal responses through textual analysis
Studying a whole text	<ul style="list-style-type: none">How a writer constructs character, setting, plot and themes to convey meaning; close textual analysis; identifying key dramatic conventions, construction of character, plot and theme; use of language to convey meaning; developing textual analysis
Studying a Shakespeare Play	<ul style="list-style-type: none">Decoding questions, selecting and retrieving information and understanding meaning through a writer's choice of language.Appreciating texts from the canon; focusing on the dramatic text in production
Reading and Grammar Skills	<ul style="list-style-type: none">Studying the effectiveness and impact of the grammatical features of the texts; using appropriate language and terminology consciously in their writing and speech to achieve particular effects; exploring spoken and written language in different registers.

Assessment

- Gothic descriptive writing to imagine, explore and entertain.
- Responding to author's craft
- Crafting simile & metaphor poems. Poetry presentations.
- Crafting a media text to inform, explain and describe.
- Writing a detective narrative.
- Instructional writing, review writing and informative writing.
- Analytical writing skills.
- Spoken Language tasks, such as creating a news broadcast.
- Analytical essay writing.
- Reading skills practice papers.
- Writing and grammar skills practice papers.

Additional Information

- Opportunities for all students to become involved in: BBC Young Reporter journalism project; Reading School Book Festival; visiting authors and writing workshops; visiting touring theatre groups; McIlroy extended writing competition.



Floreat – Year 7

Topics	Skills and Knowledge
Character and Virtue Toolkit	<ul style="list-style-type: none">• L1 - Character, Virtue & Aristotle• L2 - What is the good life?• L3 - Defining virtues• L4 - Emotions and virtues• L5 - Developing virtues
Friendship and Community	<ul style="list-style-type: none">• L1 - What makes a good friend?• L2 - Developing friendships• L3 - Are you a hedgehog or a rhino?• L4 - Win-win situations• L5 - Mediators• L6 - Community and Service• L7 - Community and Diversity
Character and Leadership	<ul style="list-style-type: none">• L1 - Running the School• L2 - School Pillars in Action• L3 - Who will I become?• L4 - This is me• L5 - Teamwork and Communication
Character and Resilience	<ul style="list-style-type: none">• L1 - Facing challenges• L2 - Self-esteem• L3 - Practical Criticism• L4 - How to take criticism 1• L5 - How to take criticism 2• L6 - Resilience project
Assessment	
<ul style="list-style-type: none">• Participation in co-curricular activities and seizing of opportunities to demonstrate leadership• Feedback from staff and external partners plus ongoing in-lesson verbal feedback from teacher• Critical dialogue during scenario- based activities and debates	
Additional Information	
<ul style="list-style-type: none">• Reading School's innovative Leadership Programme aims to foster the transferable skills necessary for sustained success both within and more importantly, beyond, Reading School. The programme is based on the two streams of 'Taught' and 'Caught' Leadership.• Students are encouraged to participate and seek leadership opportunities within extra-curricular activities including sport, music, House Competitions, LRC, School Council, Careers, Drama Productions, CCF (Y9 upwards), Future Stories (Y9 upwards), Duke of Edinburgh (Y10 upwards) as well as drawing on activities outside of school.• Topical examples are used to enhance students' awareness of current affairs, whilst external	



Floreat – Year 8

Topics	Skills and Knowledge
Character and Service	<ul style="list-style-type: none">• L1 - Why do people volunteer?• L2 - How can you volunteer?• L3 - How can volunteering develop me?• L4 - Service project
Cyber Wisdom	<ul style="list-style-type: none">• L1 - Using technology wisely• L2 - Cultivating a positive online reputation• L3 - Character and addictions• L4 – Impulsivity and delayed gratification• L5 - Understanding cyberbullying• L6 - How can you respond?
Character for my future	<ul style="list-style-type: none">• L1 - Character strengths for my future• L2 - Study skills and the virtue of learning• L3 - Living the good life• L4 - What might life hold in store?
Character and Relationships	<ul style="list-style-type: none">• L1 - Emotional Health• L2 - What makes a healthy relationship?• L3 - Managing grief• L4 - Peer pressure• L5 - How does conflict arise?• L6 - How can conflict change society?
Assessment	
<ul style="list-style-type: none">• Participation in co-curricular activities and seizing of opportunities to demonstrate leadership• Feedback from staff and external partners plus ongoing in-lesson verbal feedback from teacher <p>Critical dialogue during scenario- based activities and debates</p>	



French – Year 7

Topics	Skills and Knowledge
Introduction <ul style="list-style-type: none">GreetingsDays and birthdaysClassroom languageWhere do you live?NumbersFamily	<ul style="list-style-type: none">Basic languagePresentationAlphabet/pronunciationLearning vocabulary
“Parler de moi” <ul style="list-style-type: none">Likes and dislikesJustificationsPhysical descriptionPersonality	<ul style="list-style-type: none">Listening – gist and detailSpeaking – social and classroom languageWriting – building a paragraph, linking sentences.Grammar: all regular verbs -er in the present tense, avoir and être
“Mon collègue” <ul style="list-style-type: none">School subjectsUsing opinionsTelling the timeCulture: educational system in France	<ul style="list-style-type: none">Listening – gist and detailSpeaking – using intonation and tone, using social and classroom languageGrammar: using the negative, making longer sentence
“Mes passetemps” <ul style="list-style-type: none">HobbiesNew technologiesSportsLeisure and activitiesRevision of opinions	<ul style="list-style-type: none">Speaking – using promptsReading – main points and detail, looking at text features, dealing with unfamiliar languageListening – interpreting intonation and tone, identifying unfamiliar languageGrammar: irregular verbs "faire" and "aller"
“Revisions” <ul style="list-style-type: none">Revision of all topicsBuilding on my writing and speakingImproving my work	<ul style="list-style-type: none">Writing – building text, different text typesGrammar – consolidation of verbs, negative, syntax
“Nourriture” <ul style="list-style-type: none">Food itemsOrdering foodFollowing a recipe	<ul style="list-style-type: none">Grammar: using the infinitive, modals, near future, partitive articleSpeaking: asking and answering questions



Assessment

- Speaking
- Listening, reading, and writing assessments
 - End of year exams (listening, reading and writing)

Additional Information

- Throughout the year, we teach and reinforce listening, reading, speaking and writing skills as well as transcription and translation to improve the commands of the language. We consider a range of strategies for learning vocabulary, in particular the 'Look, say, cover, write, check' technique. The vocabulary needed is on the Year 7 French class on Quizlet. There are regular vocabulary and grammar tests in order to consolidate the work done in class.
- Students are recommended to use websites such as "languagesonline.org", "funwithlanguages.vacau.com" and "duolingo.com" to consolidate their learning.
- Wordreference is our recommended online dictionary.



French – Year 8

Topics	Skills and Knowledge
“T’es branché”	<ul style="list-style-type: none">• Revision of all verbs in the present tense (regular and irregular)• The negative form• Expressing opinions and justifying them• Perfect tense of regular -er verbs with ‘avoir’
“Paris, je t’adore!”	<ul style="list-style-type: none">• Perfect tense of all verbs• Opinions in the past• Intensifiers• Asking questions in the past• Use a variety of persons (not only je)
Asterix and various authentic resources around French comics	<ul style="list-style-type: none">• Describe personality• Reflexive verbs in the present• Possessive adjectives• Debating• Clothes and colours• The near future tense• Using the three tenses at the same time
“Chez moi, chez toi”	<ul style="list-style-type: none">• Irregular adjectives• The comparative• House and prepositions of place• Food and partitive articles• Quantities and opinions on food• Talking about an event
“Quel talent!”	<ul style="list-style-type: none">• Modal verbs present tense• The imperative• The superlative• Extending writing: use of a range of tenses and complex structures
“Studio découverte” Cross-curricular projects (Geography, History)	<ul style="list-style-type: none">• Working out the meaning of words• Developing a personal response to a text



Assessment

- Listening/Reading (module 1)
- Grammar test (present)
- Writing a post card using the perfect tense
- Speaking- describing characters from Asterix and using the near future tense
- Reading and Listening
- End of year exams (listening / reading and writing Modules 1 to 5)

Additional Information

- Throughout the year, we teach and reinforce listening, reading, speaking and writing skills as well as transcription and translation to improve the commands of the language. We consider a range of strategies for learning vocabulary and encourage the pupils to use "This is Language" to develop their range of vocabulary and listening skills
- The use of other websites such as "quizlet" is recommended too. There are Mary Glasgow magazines available in the LRC and on SharePoint; We aim at a spontaneous and natural use of the target language and as a consequence we regularly invent role plays or re-enact dialogues from authentic materials or films. The students film themselves and can then reflect on their fluency, their pronunciation and overall ability to juggle with tense and manipulate the grammatical structures studied in class.



Geography – Year 7

Topics	Skills and Knowledge
Year's Focus: Why does the UK look like it does?	

Urban Landscapes	<ul style="list-style-type: none"> • Settlement Types • Are settlements located randomly? • UK urban areas mapping • How and why did urban areas grow? • Using OS maps to investigate urban areas • Urban models • Urban issues in a contrasting location: Dharavi
Rural areas	<ul style="list-style-type: none"> • Stereotypes v reality – hidden issues • Rural areas: key terms and definitions: Difficulty defining rural areas • Deprivation: How can Merthyr Tydfil be 'the worst place to live in the UK?' • Analysing data in Geography and combining OS map skills • How connected is Cornwall? Rural (dis)connectedness and population Pyramids • National Park Conflict and Honeypot Sites • What is the future for Farming?
Tectonics	<ul style="list-style-type: none"> • Are there really no volcanoes in the UK? • How did a tropical sea-living dinosaur get found in the cliffs of Dorset? • Geology: formation of sedimentary rocks, fossils and superposition • Latitude and Longitude plus Relief on OS maps • Alfred Wegener and his evidence for Continental Drift • Oceanic and Continental Crust and their relevance in Plate Boundaries • Volcanic hazards

Assessment

Baseline assessment at start of the year to assess knowledge from KS2 National Curriculum

Assessments are undertaken at the end of each topic and will take the form of one of the following:

End of topic test Online quizzes Written essay Decision making exercise

Additional Information

- All lessons are located on Teams for reference and in case any students miss a lesson, they are expected to catch up during their own time and prior to the next lesson.
- A level will be awarded at the end of each topic, which your son will record on his student tracker in the front of his book. The levels throughout the year will consist of end of topic tests, essays, decision making exercises, presentations and field work write up activities.
- To help support and engage your son please discuss current affairs related to the topics he is studying.



Geography – Year 8

Topics	Skills and Knowledge
Weather and Climate – Local v Global <ul style="list-style-type: none">• What is weather?• Anticyclones and depressions• Local weather investigation• Factors affecting UK climate and global atmospheric circulation• Tropical storms and climate change hazards• Climate change: past, present and future	<ul style="list-style-type: none">• Risk, mitigation, landscape systems, history and change• Fieldwork skills• Appreciation of spatial variation and temporal change
The Almighty Dollar <ul style="list-style-type: none">• The global economy• Where does your money go when you spend it?• Patterns of trade and movements of people• Foreign direct investment and neo-colonialism	<ul style="list-style-type: none">• Unevenness, interconnectedness, decision making• Use of evidence
Is China the future global superpower? <ul style="list-style-type: none">• China's physical and human geography• Does China's scale create opportunities or challenges?• China's growing global influence• What makes a superpower?• Limitations to China's growth and influence	<ul style="list-style-type: none">• Attitudes and perceptions, challenges, interdependence and decision making• Developing arguments
Natural Environments v Human Interventions <ul style="list-style-type: none">• Growing food demand – GMO v Organic• Global water supply – Desalination v Dams• Natural disaster control – Great Green Wall and Switzerland avalanche management• Climate Change• Flooding – Groynes v Mangroves• Energy futures	<ul style="list-style-type: none">• Governance and management, processes, feedbacks
Africa: Hopeful or Hopeless? <ul style="list-style-type: none">• Perceptions of Africa• How is Africa shaped by its past?• What opportunities are there within Africa to enable it to prosper?• What challenges does Africa face in its path to development?• Development strategies	<ul style="list-style-type: none">• Governance, unevenness, stakeholders, future uncertainties• Using GIS• GIS StoryMaps• Decision making exercise



Topics	Skills and Knowledge
--------	----------------------

Assessment

- Fieldwork write up
- End of topic test
- Formative online quizzes
- Decision making exercise
- Presentations
- Decision making exercise
- Presentations
- End of topic write up

Additional Information

- Students are expected to improve their work by responding to their feedback as directed by their teacher.
- Curricular enrichment opportunities include Orienteering competition, Gelfie competition (Geography Selfie!), participation in the GA Quiz to represent the school, weekly Geography electives and local fieldwork in school time.



German – Year 7

Topics	Skills and Knowledge
Introducing Yourself <ul style="list-style-type: none">• Days and birthdays• Numbers• Countries	<ul style="list-style-type: none">• Basic language• Presentation• Alphabet /pronunciation• Learning vocabulary
Where you live <ul style="list-style-type: none">• Area you live in• Houses with rooms and furniture	<ul style="list-style-type: none">• Articles and accusative
Home <ul style="list-style-type: none">• Family• Pets• Describing people	<ul style="list-style-type: none">• Verb endings
Hobbies <ul style="list-style-type: none">• Opinions	<ul style="list-style-type: none">• Word order• Conditional
German Towns <ul style="list-style-type: none">• Food	<ul style="list-style-type: none">• Conditional• Modals
Projects <ul style="list-style-type: none">• Holidays• German speaking towns	<ul style="list-style-type: none">• Future
Assessment <ul style="list-style-type: none">• Reading, Listening• Speaking• End of year exam: listening, reading, speaking, and writing	
Additional Information <ul style="list-style-type: none">• Throughout the year, we teach and reinforce vocabulary learning, listening, reading, speaking and writing skills as well as transcription and translation from authentic German texts/ books/ poems/ songs.• To learn vocabulary effectively, pupils should firstly revise from German to English, test themselves by covering and revise those still incorrect. Repeat the process until all vocabulary can be recalled. Then revise from English to German (sets of 3 or 5 words/phrases at a time, Look, cover, write, check), tick the correct items, move to the next set. Continue to revise those items that were incorrect and repeat the above process until all vocabulary is correct. Test one last time by choosing English words at random from the list, write them down and check. We encourage our pupils to use QUIZLET to provide an interactive way for vocab revision.	



German – Year 8

Topics	Skills and Knowledge
Health <ul style="list-style-type: none">• Food• Illnesses• Typical German foods	<ul style="list-style-type: none">• Revision verbs• Modals• Word order
Every-Day <ul style="list-style-type: none">• Daily routine• Clothes	<ul style="list-style-type: none">• Verb endings• Separable verbs
Media <ul style="list-style-type: none">• Music• Film• Hobbies	<ul style="list-style-type: none">• Modals• Past
Transport <ul style="list-style-type: none">• Directions	<ul style="list-style-type: none">• Imperative
School <ul style="list-style-type: none">• Subjects• Opinions	<ul style="list-style-type: none">• Verb 2nd
Projects <ul style="list-style-type: none">• Holiday destinations	<ul style="list-style-type: none">• Revision of all tenses
Assessment <ul style="list-style-type: none">• Reading, Listening• Speaking• End of year exam: listening, reading, speaking, and writing	
Additional Information <ul style="list-style-type: none">• Throughout the year, we teach and reinforce vocabulary learning, listening, reading, speaking and writing skills as well as transcription and translation from authentic German texts/ books/ poems/ songs.• To learn vocabulary effectively, pupils should firstly revise from German to English, test themselves by covering and revise those still incorrect. Repeat the process until all vocabulary can be recalled. Then revise from English to German (sets of 3 or 5 words/phrases at a time, Look, cover, write, check), tick the correct items, move to the next set. Continue to revise those items that were incorrect and repeat the above process until all vocabulary is correct. Test one last time by choosing English words at random from the list, write them down and check.• We encourage our pupils to use QUIZLET to provide an interactive way for vocab revision.	



History – Year 7

Topics	Skills and Knowledge
The Norman Conquest	<ul style="list-style-type: none">Looking into the elements of medieval warfare but also how battle was not the only way to control a kingdom. Ranging from Castles to the Feudal system. Looking at how the last successful invasion of England played out and how it had a far-reaching impact – even on us today!
Personal Investigation	<ul style="list-style-type: none">An opportunity for pupils to delve deep into their own assumptions of History. Through research and guidance, they will unravel what they think they know about history and see how accurate they were based on available evidence.
The Middle Ages	<ul style="list-style-type: none">Where does the power really lie in the Middle ages? With the King? The Church? Or the people themselves? Through a range of events pupils will consider the broader concepts of power from studying things such as the Black Death and the Crusades to the Magna Carta and the murder of Thomas Becket.
Pandemics Through Time	<ul style="list-style-type: none">Using the examples of Covid today for comparison pupils will look at how different societies and people have responded to outbreaks of disease over time. They will look at how the ideas around disease have changed over time and how advancements in technology and society have changed the way pandemics have affected people and how different groups have responded
Tudors and Stuarts	<ul style="list-style-type: none">The study of some of the most famous royal families in History. Looking at what was so significant about what Henry VIII did (other than marry 6 wives), to how Bloody Mary got her name and how Queen Elizabeth I was a remarkable woman. To the ideas of the divine right of kings and the bloody English Civil War –pupils will see how far the ideas of monarchy have come from the medieval Period.
The Mughal Empire	<ul style="list-style-type: none">This unit will look at developments in India in the early modern period and how the Mughal Empire developed and changed over time looking at key individuals. It will act as a contrast to the societies we have studied in England and act as a preparation for further study of India and its interaction with Britain in the 19th and 20th centuries

Assessment

Assessments take many shapes and size but ultimately, they are to see how pupils are progressing be it through their content knowledge or skills we are developing. With this in mind boys will be assessed in number of different ways including extended writing essays, source analysis and presentations.

Additional Information

The History department aims to develop a passion and enthusiasm for the subject and an awareness of its importance in understanding the world today. We achieve this through studying contemporary issues through history, taking philosophical approaches to big issues, providing extra-curricular opportunities and always trying to include European and World events as part of our studies. Students will complete one meanwhile elsewhere homework a half term considering the experience of a country from elsewhere in the world to the topic we are studying and consider how it is similar and/or different.

- Causation**

Not only looking into why do things happen? But also, what are the most important causes of events, how there can be more than one and the different types of causes.

- Process of research**

Learning a number of different research skills, be it working in groups or as an individual and looking at a number of different resources – ranging from sources, books in the LRC and online research.

- Significance**



Looking into specific events and criteria and assessing why they are important but also assessing the different criteria we can assess them against be it scale, cost, impact or even how an event is remembered.

- **Similarity and difference**

Looking across time periods and continents how can similar events happen across the globe and how things within the same country can happen very differently depending on the context of time.

- **Change and continuity**

How things change is an easy thing to identify but real historians look into the underlying continuities throughout a period as well. How people have been treated over centuries can teach us about the views of the ruling classes.



History – Year 8

Topics	Skills and Knowledge
Britain and the world 1750-1900	<ul style="list-style-type: none">Slavery, democracy, empire and Industrial Revolution are the key components of this topic. Looking at the treatment of people by the British across the globe both positive and negative. This leads into the exploitation of native Africans through slavery looking at treatment, transport and abolition. How people in Britain were treated differently and how they fought for the vote. IR and the movement of people from the towns and villages to the cities to work in factories. An exciting period but a dangerous one as children are made to work down the mines and can lose limbs cleaning machinery.
Warfare	<ul style="list-style-type: none">Looking at how warfare advances the 20th Century from the trenches and the introduction of tanks to the advances in aviation technology that allowed the Blitz. Pupils will also look at the political situations pre and post wars and the incredibly significant decisions on how best to move on from a world war.
Holocaust	<ul style="list-style-type: none">A horrific period in human history but one that is so incredibly important and a story that needs to be told. Pupils will be told the events of the Holocaust and how the Jewish populations under Nazi control were persecuted in a number of ways. Pupils will also focus on the stories of resistance, the heroes of this period who fought against the persecution and the importance of remembrance of such an event.
Protests	<ul style="list-style-type: none">A thematic study of protests through history. With activities campaigning and protesting for climate change in the news regularly we use this to engage students, to look back at some of the most significant protest movements our planet has seen. Black rights, Gay Rights and Women's Rights protests to name just a few that have shaped the world we live in today.

Assessment

Assessments in year 8 build on the skills that have been developed through the year and those that have been taught in year 7. We aim to push the boys further. As their skills and knowledge become more advanced and developed so to do the assessments. The format will be very similar as to year 7 with extended writing and source analysis but the outcomes that the boys produce will be significantly more developed from those they were capable in year 7, such as a more detailed analysis of satirical cartoons about the wars.

Additional Information

The history department aims to develop a passion and enthusiasm for the subject and an awareness of its importance in understanding the world today. We achieve this through studying contemporary issues through history, taking philosophical approaches to big issues, providing extra-curricular opportunities and always trying to include European and World events as part of our studies.

- Using sources**

To gain a better understanding of the periods being studied the pupils will start developing their source analysis more. Looking at the content, origin and purpose of the sources being produced but then with their own knowledge putting them into the context of the period. They will also compare different sources to see different perspectives and interpretations of the same events. How do generals find the war compared to the soldiers on the front line?

- Causation**

This advances from last year looking at multi-causal events. Yes, the assassination of Franz Ferdinand kick started WW1 but there were numerous reasons why the war started but is one more important than another? And how do they link together to even create a world war?

- Significance**

Looking into specific events and criteria and assessing why they are important but also assessing the different criteria we can assess them against be it scale, cost, impact or even how an event is remembered.

- Change and continuity**



How things change is an easy thing to identify but real historians look into the underlying continuities throughout a period as well. How people have been treated over centuries can teach us about the views of the ruling classes and how people in Britain had to fight for their rights to vote.

- **Similarity and difference**

How is the experience of the Industrial Revolution, the British Empire or the world wars vary in different parts of the world? What experiences are universal? How does the context of time and place affect people's views on an event?



Mandarin – Year 7

Topics	Skills and Knowledge
Introducing Yourself <ul style="list-style-type: none">NumbersBirthdayGreetings	<ul style="list-style-type: none">Basic languagePinyin<ul style="list-style-type: none">Characters and its structuresLearning vocabulary
My family <ul style="list-style-type: none">Family memberPets	<ul style="list-style-type: none">Measure wordsBasic sentence structure
Hobbies <ul style="list-style-type: none">HobbiesLikes and dislikesCan do and can't do	<ul style="list-style-type: none">Negatives
School subjects <ul style="list-style-type: none">SubjectsTimeGenderSchool activities	<ul style="list-style-type: none">Asking questions on whatPrepositionsPronoun
Assessment <ul style="list-style-type: none">Reading, ListeningVocab-testsEnd of year exam (External): listening, reading, speaking, and writing	
Additional Information <ul style="list-style-type: none">Throughout the year, we teach and reinforce vocabulary learning, listening, reading, speaking and writing skills as well as transcription and translation from authentic Mandarin songs, short stories and videos.We have Spring festival events every year by the end of January for students to immerse in authentic Chinese culture.Assisting Mandarin teacher from China will be in the classroom to help the weak or challenge the top ones.To learn vocabulary effectively, pupils receive worksheet that step by step guides them to write Chinese characters in the right stroke order. Videos that help students to master the tones are introduced in the classroom. We encourage our pupils to use different types of online tools for self-learning, including Pleco, Duolingo, Anki cards and google translate, etc. The advantages and disadvantages are included in the early school year projects.	



Mandarin – Year 8

Topics	Skills and Knowledge
Food <ul style="list-style-type: none">Chinese foodWestern foodMeatSnacks	<ul style="list-style-type: none">ConnectivesFuture tenseExpress willingness
Travelling <ul style="list-style-type: none">WeatherCountriesPlacesTransportation	<ul style="list-style-type: none">Past tenseAsk questions about where
About myself <ul style="list-style-type: none">Adjectives about appearanceFurnitures in my roomClothingColourDaily routine	<ul style="list-style-type: none">PrepositionsMeasure words
My town <ul style="list-style-type: none">Places in my townMy houseJobs	<ul style="list-style-type: none">DirectionsFuture tense 2

Assessment

- Reading, Listening
- Vocab-tests
- End of year exam (External): listening, reading, speaking, and writing

Additional Information

- Throughout the year, we teach and reinforce vocabulary learning, listening, reading, speaking and writing skills as well as transcription and translation from authentic Mandarin songs, short stores and videos.
- We have Spring festival events every year by the end of January for students to immerse in authentic Chinese culture. In Year 8, we also organise a trip to the local restaurant so students can order food in Mandarin and have a taste of the Chinese culture.
- Assisting Mandarin teacher from China will be in the classroom to help the weak or challenge the top ones.
- To learn vocabulary effectively, pupils receive worksheet that step by step guides them to write Chinese characters in the right stroke order. Videos that help students to master the tones are introduced in the classroom. We encourage our pupils to use different types of online tools for self-learning, including Pleco, Duolingo, Anki cards and google translate, etc. The advantages and disadvantages are included in the early school year projects.



Mathematics – Year 7

Topics	Skills and Knowledge
Number <ul style="list-style-type: none">• Number skills revision• BODMAS• Fractions• Decimals• Percentages• Directed• Numbers• Approximations (rounding)• Approximation and estimation	<ul style="list-style-type: none">• Confidence in using basic number skills in a variety of subjects and contexts.• Developing the ability to handle abstract concepts and to recognise and use patterns.• Developing approaches to problem solving.• To develop practical accurate measuring and drawing skills.
Geometry and Measures <ul style="list-style-type: none">• Manipulating and simplifying expressions and formulae• Using formulae and substitution• Changing subject of formulae• Solving linear and simultaneous equations (Extension opportunities)• Using coordinates Equation of a straight-line Solving inequalities• Graphing linear inequalities• Finding nth term of a sequence	<ul style="list-style-type: none">• The ability to collect, display and interpret data. To start to develop a critical awareness of limitations of statistics used in the media. To start to develop an understanding of chance.• Perseverance in solving problems.
Algebra <ul style="list-style-type: none">• Angle properties of parallel and intersecting lines and triangles Properties of polygons• Metric and Imperial units• Perimeter• Area Volume• Compass points and bearing• Transformations	<ul style="list-style-type: none">• Resourcefulness – questioning is an integral part of each lesson. Boys are encouraged not simply to accept answers or methods but to suggest alternatives and to think more deeply about problems.• Appreciating connections between topics is developed.
Handling Data <ul style="list-style-type: none">• Statistics revision• Averages and range• Stem and leaf diagrams• Scatter graphs and correlation• Surveys	<ul style="list-style-type: none">• Reflection – looking to apply what has been learnt is a key skill in mathematics.• Reciprocity – giving and taking feedback is encouraged.
Assessment	



Assessment in Mathematics is on- going and takes a variety of forms. These include regular homework, tests and teacher assessment of student interaction, discussion and responses to open-ended questioning.

Homework is set approximately every other lesson and may include written exercises, online homework, learning for tests and research. This is to enable students to reflect on their own learning and to practice applying Mathematics in both familiar and unfamiliar contexts, as well as for teachers to assess progress.

There are end of year examinations.

Additional Information

- In year 7 boys are taught in their tutor groups.
- Boys are entered for UKMT Junior Maths Challenge.
- Investigational/open-ended work is embedded in the syllabus.
- MIG maths club to stretch able students
- Maths clinic.



Mathematics – Year 8

Topics	Skills and Knowledge
Number <ul style="list-style-type: none">• Ratio and Proportion• Ratios including map scales and sharing in a given ratio• Percentages, including repeated proportional change and 'reverse' percentages.• Direct proportion and their graphs• Inverse Proportion• Problem solving and best buys• Fractions• Standard Index Form• Limits of Accuracy	<ul style="list-style-type: none">• Confidence in using basic number skills in a variety of subjects and contexts.• Developing the ability to handle abstract concepts and to recognise and use patterns.• Developing approaches to problem solving.• To develop practical accurate measuring and drawing skills.
Geometry and Measures <ul style="list-style-type: none">• Compound measures Similar Shapes (2D and 3D) Pythagoras theorem Trigonometry, including• applications to navigation and surveying• Circle properties• Circumference and area of a circle and compound shapes• Arc length and area of a sector• Volume and Surface Area of cylinder, sphere and cone• Constructions and Loci• Plans and Elevations of 3D shapes• Maps and scale drawings• Congruence and similarity• Vectors	<ul style="list-style-type: none">• The ability to collect, display and interpret data. To start to develop a critical awareness of limitations of statistics used in the media. To start to develop an understanding of chance.• Perseverance in solving problems.
Algebra <ul style="list-style-type: none">• Solving linear, simultaneous and quadratic equations• Quadratic Graphs• Solving equations graphically and algebraically• Graphs of real-life functions• Graphs of straight lines, quadratic, cubic and reciprocal functions• Setting up and solving equations including worded and problem-solving questions• Indices including laws of indices	<ul style="list-style-type: none">• Resourcefulness – questioning is an integral part of each lesson. Boys are encouraged not simply to accept answers or methods but to suggest alternatives and to think more deeply about problems.• Appreciating connections between topics is developed.



Handling Data

- Probability, including tree diagrams
- Reflection – looking to apply what has been learnt is a key skill in mathematics.
- Reciprocity – giving and taking feedback is encouraged.

Assessment

Assessment in Mathematics is on- going and takes a variety of forms. These include regular homework, tests and teacher assessment of student interaction, discussion and responses to open-ended questioning.

Homework is set approximately every other lesson and may include written exercises, online homework, learning for tests and research. This is to enable students to reflect on their own learning and to practice applying Mathematics in both familiar and unfamiliar contexts, as well as for teachers to assess progress.

There are end of year examinations.

Additional Information

- In year 8, the cohort is split in to two halves and mathematics is timetabled per half year group. In each half the boys are taught in three sets. All sets follow the same Scheme of Work, and different sets may work at a different pace depending on the class.
- Boys are entered for UKMT Junior Maths Challenge.
- Investigational/open-ended work is embedded in the syllabus.
- MIG maths club to stretch able students
- Maths clinic.



Music – Year 7

Topics	Skills and Knowledge
Instruments of the Orchestra	<ul style="list-style-type: none"> This unit develops pupils' understanding about orchestral instruments and families/sections of orchestral instruments. Learn about the construction, sound production and timbres of different orchestral instruments using Benjamin Britten's "Young Person's Guide to the Orchestra" to enhance their learning. Introduction to the modern symphony orchestra and learn about its layout, grouping and the instruments which belong to each section including their individual and characteristic timbres. Experiencing actual orchestral instruments (where possible) and pupils join together to play a class orchestra piece to gain an understanding of what it's like to perform as part of a larger group and the role of individual parts to the overall texture of the music.
Building Bricks of Music	<ul style="list-style-type: none"> Building Bricks has been designed as a unit of work which can be used to allow pupils the opportunity to engage in active music making. Pupils learn about Pitch, Dynamics, Duration, Tempo, Texture, Timbre or Sonority, Articulation and Silence and are introduced to Graphic Notation and Graphic Scores. Develop understanding of the Elements of Music and provide pupils with a foundation of musical vocabulary for use at Key Stage 3 which can be developed for GCSE Music.
Year 7 Concert	<ul style="list-style-type: none"> Ensemble singing of Y7 Anthem and Rooster Rag for public performance. Solo vocal roles as well as narration roles. Solo instrumental performances.
Rhythm and Pulse	<ul style="list-style-type: none"> This unit introduces the concept of pulse through a variety of experiences which include pulse games and other rhythmic activities, the creation of patterns, including ostinati, and repetitive rhythmic textures – cyclic and polyrhythms, listening activities and the composition and performance of class and group rhythm pieces. Through composing and performing, pupils are introduced to rhythm grids and rhythm grid notation which can be extended to include single line rhythm notation using the note values of a semibreve, minim, crotchet, quaver and pair of quavers. Accents are introduced as an articulation marking providing variety to a regular pulse along with how pulse patterns can be grouped into two, three and four-beat patterns forming a basis of time signatures, bars and bar lines and conducting patterns in 2/4, 3/4 and 4/4 times. The characteristic 2/4 pulse pattern can be explored in the genre of the March and the 3/4 pulse pattern in the Waltz.
Form and Structure	<ul style="list-style-type: none"> This unit begins by establishing what is "Form and Structure" in music and why Form and Structure is important. Through performing, composing, improvising and listening and appraising, pupils then explore four different musical structures: Question and Answer Phrases, Binary Form, Ternary Form and Rondo Form. Pupils begin with an exploration into Question and Answer phrases as one of the simplest types of musical structures, relating this to Call and Response singing and how musical Question and Answer phrases balance with each other to form a complete structure. Binary and Ternary Forms are then explored with an emphasis on how musical contrast is achieved between "A" and "B" sections revising the Elements of Music. Rondo Form is explored as a type of recurring musical structure with pupils adding pentatonic improvisations as "Episodes" between a whole-class "A" section. Throughout the unit, pupils listen to examples of music based on Binary, Ternary and Rondo Forms and emphasis is placed on revising treble clef staff notation.

Assessment

All students complete a Baseline Assessment at the start of Y7. This is then re-taken towards the end of the year to record development.



Music – Year 8

Topics	Skills and Knowledge
Ladders	<ul style="list-style-type: none">Pupils begin with the Pentatonic scale and learn and explore this through integrated activities of listening, performing, composing and improvising.Move onto the Chromatic scale and learn about tones and semitones before exploring and identifying the difference between major and minor scales.Pupils learn about the whole tone scale and how the composer Debussy used this in impressionist music and the connection between impressionist art and music.
Jazz Improvisation	<ul style="list-style-type: none">This unit develops pupils' understanding of bass lines and chords as a harmonic foundation upon which a melody can be constructed upon and as a foundation for improvisation.Pupils begin by learning about the history, origin and development of the Blues and its characteristic 12-bar Blues structure exploring how a walking bass line is developed from a chord progression.Pupils also explore the effect of adding a melodic improvisation using the Blues scale and the effect which "swung" rhythms have as used in jazz and blues music. Pupils are introduced to seventh chords and how these are formed, and their characteristic sound used in jazz and blues music.Pupils examine the lyrics of blues songs before composing their own set of lyrics for a performance of their blues song using different textural layers. Finally, pupils explore Ragtime Music as a type of jazz examining how chords have been used differently in a "vamp" style.
African Music	<ul style="list-style-type: none">This unit explores the main rhythmic musical features and devices used in African music, particularly the African drumming tradition of West Africa.Pupils learn to perform different drum strokes on a drum before composing, performing and improvising simple rhythms, turning these into cyclic rhythms. These are then combined to form a polyrhythmic texture, characteristic of much African music.Pupils explore the effect of syncopation on rhythms learning about its offbeat feel and its emphasis on weaker beats before exploring how call and response is used in African music, improvising, composing and performing their own call and response rhythms.Pupils look briefly at African musical instruments before combining their learning of cyclic and polyrhythms, syncopation and call and response into an African-inspired piece.
Indian Music	<ul style="list-style-type: none">In this unit, pupils will examine how music is used and performed in a non-Western culture (India). They will develop an awareness of the cultural and historical background of Indian music through listening and compositional tasks and develop their knowledge and skills in areas such as scales, improvisation and notation.Pupils will become aware of the terms raga and tala and know how these are constructed, composing and performing their own.Pupils discriminate between Indian and other ethnic music and learn the names of common Indian musical instruments.
Year 8's Got Talent	<ul style="list-style-type: none">This is a small-scale version of our annual House Music Competition wherein the Y8 cohort compete against each other. The 'final' is adjudicated by a visiting expert from the professional musical world; previous judges have included the composer Simon May (EastEnders) and Tony nominated composer Alex Baranowski.
Assessment	



Physical Education – Year 7 and 8

Topics	Skills and Knowledge
<ul style="list-style-type: none">• Essential Movement Skills• Gymnastics• Rugby	<ul style="list-style-type: none">• Physical: Push Pull, Hinge, Squat, Lunge, Twist, Pull• Cognitive: Training Principles• Social: Sequence work• Cognitive: Rules and Tactics Social: Working well with others
<ul style="list-style-type: none">• Dance• Healthy and Active Lifestyles• Football	<ul style="list-style-type: none">• Physical: Controlled movement Social: Designing a sequence within a group• Cognitive: Understand the benefits of a healthy and active lifestyle• Cognitive: Rules and Tactics Social: Working well with others
<ul style="list-style-type: none">• Athletics• Cricket	<ul style="list-style-type: none">• Affective: Focus on Quality Practice and Resilience• Cognitive: Rules and Tactics Social: Working well with others• Social: Working well with others

Assessment

- A varied approach to assessment but mainly focused on co- construction of targets in the physical, cognitive, social and affective learning domains.
- Teacher assessment on effort, willingness to have a go, compassionate interaction with other students and quality practice.
- There are no grades for Curriculum PE, however we focus pupils to reflect on their learning, skill acquisition and self- improvement

Additional Information

- All boys will represent their house in rugby, football and cricket over the course of the year.
- If they are in school but unable to take a physical part they still require kit as they will take on the role of coach, official or captain with lessons. There are no non-doers within PE.
- Be prepared for all activities



Physics – Year 7

Topics	Skills and Knowledge
Measurements	<ul style="list-style-type: none">• Lesson 1 Working Scientifically• Lesson 2 Measurement Units and Prefixes• Lesson 3 Calibration of Measuring Instruments• Lesson 4 Plotting Scatter Graphs• Lesson 5 Measuring Cooling• Lesson 6 Measuring Bending• Lesson 7 Planning an Investigation• Lesson 8-9 Carrying Out Your Investigation• Lesson 10 Concluding and Evaluating <ul style="list-style-type: none">• Thinking Scientifically and creatively• Using Physics and Engineering terminology• Literacy exercises and learning technical vocabulary
Forces	<ul style="list-style-type: none">• Lesson 1 Forces and their Effects• Lesson 2 Mass and Weight• Lesson 3 Friction• Lesson 4 Equilibrium and Resultant Force• Lesson 5 Density• Lesson 6-7 Speed• Lesson 8 Air and Water Resistance <ul style="list-style-type: none">• Practical skills for experimentation and Engineering• Understanding history of Physics and Engineering• Research skills
Waves and Sounds	<ul style="list-style-type: none">• Lesson 1 Sound Waves• Lesson 2 Travelling Sound• Lesson 3-4 Frequency and Amplitude• Lesson 5 Water Waves <ul style="list-style-type: none">• Graph drawing• Working as a team.• Communicating and collaborating
Space	<ul style="list-style-type: none">• Lesson 1 Earth in the Solar System• Lesson 2 Eclipses and the Moon's Phases• Lesson 3 The Universe• Lesson 4 Exploring Space



- Lesson 5 The Big Bang
- Using investigative and explorative approaches
- Understanding the application and implications of Physics & Engineering

Mechanics

- Lesson 1-2 Stretching Materials
- Lesson 3 Surface Pressure
- Lesson 4 Air and Liquid Pressure
- Lesson 5 Moments
- Working critically with evidence

Assessment

Homework every 1-2 weeks

End of topic tests every 5-7 weeks.

End of year examination

Additional Information

The KS3 Physics course works to build the basic building blocks required for further study in Physics and Engineering. Emphasis is placed on developing skills to observe phenomena and independently develop ideas surrounding them.

Our current Key Stage 3 classbook: <https://www.amazon.co.uk/Activate-Physics-Student-Helen-Reynolds/dp/0198307179>



Physics – Year 8

Topics	Skills and Knowledge
Energy	<ul style="list-style-type: none">• Lesson 1 Stores of Energy• Lesson 2 Work and Measuring Energy• Lesson 3 Conservation of Energy• Lesson 4 Fuels and Thermal Power Stations• Lesson 5-6 Comparing Fuels• Lesson 7 Nuclear Power• Lesson 8 Renewable Energy• Lesson 9 Power and Watts• Thinking Scientifically and creatively• Using Physics and Engineering terminology• Literacy exercises and learning technical vocabulary
Light and Vision	<ul style="list-style-type: none">• Lesson 1 Light Rays and Shadows• Lesson 2 Reflection• Lesson 3-4 Refraction• Lesson 5 Colour• Lesson 6 Investigating Filters• Practical skills for experimentation and Engineering• Understanding history of Physics and Engineering• Research skills
Electricity	<ul style="list-style-type: none">• Lesson 1 Static Electricity• Lesson 2 Electric Current• Lesson 3 Potential Difference• Lesson 4-5 Resistance• Lesson 6 Series Circuits• Lesson 7 Parallel Circuits• Graph drawing• Working as a team.• Communicating and collaborating
Thermal Physics	<ul style="list-style-type: none">• Lesson 1 Conduction of Heat• Lesson 2 Thermal Expansion and Convection• Lesson 3 Thermal Radiation• Lesson 4-5 Investigating Insulation



- Using investigative and explorative approaches
- Understanding the application and implications of Physics & Engineering

Magnetism

- Lesson 1 Magnets
- Lesson 2-3 Electromagnets
- Lesson 4-5 Electric Motors

- Working critically with evidence

Assessment

Homework every 1-2 weeks

End of topic tests every 5-7 weeks.

End of year examination

Additional Information

The KS3 Physics course works to build the basic building blocks required for further study in Physics and Engineering. Around 65% of all Year 8 Physics lessons will be practical based with emphasis put on creativity as well as experimentation.

Our current Key Stage 3 classbook: <https://www.amazon.co.uk/Activate-Physics-Student-Helen-Reynolds/dp/0198307179>



PSHE – Year 7

Topics	Skills and Knowledge
Health & Wellbeing	<ul style="list-style-type: none">Transition to secondary school and personal safety in and outside school, including first aid
Living in the wider world	<ul style="list-style-type: none">Careers, teamwork and enterprise skills, and raising aspirations
Relationships	<ul style="list-style-type: none">Diversity, prejudice, and bullying
Health & wellbeing	<ul style="list-style-type: none">Healthy routines, influences on health, puberty, unwanted contact, and FGM
Living in the wider world	<ul style="list-style-type: none">Self-worth, romance and friendships (including online) and relationship boundaries
Relationships	<ul style="list-style-type: none">Saving, borrowing, budgeting and making financial choices

Additional Information

There is no formal assessment for PSHE in Y7 as the aim of this subject is to equip students with the necessary skills and awareness of society beyond academia to help facilitate a smooth transition into secondary school.

The PSHE curriculum is also focused upon Reading School's ethos of Building good men by helping students to develop values of integrity and resilience.

The curriculum will remain fluid in relation to current affairs in order to help prepare and educate students about society beyond Reading School.

Standard homework will not necessarily be awarded a mark but will form an important component of facilitating meaningful discussions to advance students' understanding of certain topics.



PSHE – Year 8

Topics	Skills and Knowledge
Health & wellbeing	<ul style="list-style-type: none">Alcohol and drug misuse and pressures relating to drug use
Living in the wider world	<ul style="list-style-type: none">Setting Goals: Learning strengths, career options and goal setting as part of the GCSE options process
Relationships	<ul style="list-style-type: none">Discrimination in all its forms, including: racism, religious discrimination, disability, discrimination, sexism, homophobia, biphobia and transphobia
Health & wellbeing	<ul style="list-style-type: none">Emotional Wellbeing: Mental health and emotional wellbeing, including body image and coping strategies
Living in the wider world	<ul style="list-style-type: none">Digital Literacy Online safety, digital literacy, media reliability, and gambling hooks
Relationships	<ul style="list-style-type: none">Identity and Relationships: Gender identity, sexual orientation, consent, 'sexting', and an introduction to contraception

Additional Information

The PSHE curriculum is also focused upon Reading School's ethos of Building good men by helping students to develop values of integrity and resilience.

The curriculum will remain fluid in relation to current affairs in order to help prepare and educate students about society beyond Reading School.

Standard homework will not necessarily be awarded a mark but will form an important component of facilitating meaningful discussions to advance students' understanding of certain topics.



Theology and Philosophy – Year 7

Topics	Skills and Knowledge
An introduction to critical religious education	<ul style="list-style-type: none">• Ultimate Questions• Exploring the nature of ultimate questions• How do we know what is Real?• Introducing different worldviews• Applying and evaluating worldviews• The need for tolerance
Moral decision making	<ul style="list-style-type: none">• How Do We Make Moral Decisions?• God as Lawgiver• Holy Laws• Holy Books• Religious Leaders• The Conscience• Reflections on theistic and non-theistic guidance• Buddhist Ethics• Humanism• Utilitarianism• Egoism• Cultural Realism• Ethical consistency
Introduction to Philosophy	<ul style="list-style-type: none">• Epistemology• Worldviews• The existence of God• Meta-ethics• Philosophy, Religion and Science• Philosophy of Language
Assessment	
<ul style="list-style-type: none">• Extended essay writing• Peer marking/ Self- assessment• Oral presentations in class• End of year examination	



Theology and Philosophy – Year 8

Topics	Skills and Knowledge
Science and Religion	<ul style="list-style-type: none">• Student views and philosophical arguments• Fact vs opinion• Scientific explanation• Myth• Genesis: the biblical accounts• Genesis: Christian theological responses• The cosmological argument• The teleological argument• Science vs. Religion
Developing philosophical thinking	<ul style="list-style-type: none">• A New Way Of Thinking• The Ring of Gyges• Introduction to Ancient Thought• Why religious literacy matters Doubt and Certainty• Where do our ideas come from
Religious teachings and me	<ul style="list-style-type: none">• Introduction to Religious Teaching• What is Divine Revelation?• Diets: Control or Protection?• Environmentalism: Dominion or Care?• Medical ethics: Life or Harm?• Identity: Social and Individual• War: Just or Wrong?
Assessment	
<ul style="list-style-type: none">• Extended essay writing• Peer marking/ Self- assessment• Oral presentations in class• End of year examination	



Spanish – Year 7

Topics	Skills and Knowledge
<ul style="list-style-type: none"> • Interesting facts about Spain • Latin American countries • Talking about yourself 	<ul style="list-style-type: none"> • Basic language, presentation • Alphabet/pronunciation • Learning vocabulary • Understand classroom instructions • Numbers 1-50 • Articles
<ul style="list-style-type: none"> • Day of the Dead • Giving information about myself • Family 	<ul style="list-style-type: none"> • Ages and birthdays • Days of the weeks, months, dates • Family and pets • The verb tener
<ul style="list-style-type: none"> • Where I come from • Describing pets 	<ul style="list-style-type: none"> • The verb ser and the verb tener • Colours, nationalities and countries • Adjectives: grande and pequeno.
<ul style="list-style-type: none"> • Describing people 	<ul style="list-style-type: none"> • Physical description and personality • Ser, estar, tener, llevar.
<ul style="list-style-type: none"> • School - comparing British and Spanish schools 	<ul style="list-style-type: none"> • Subjects, the verb like, me gusta and the negative forms, adjectives of personality
<ul style="list-style-type: none"> • My town and my house 	<ul style="list-style-type: none"> • Hay, no hay • Prepositions of place, • Estar, vivir

Assessment

Reading Listening Speaking Writing

Additional Information

- Throughout the year, we teach and reinforce vocabulary learning, listening, reading, speaking and writing skills as well as transcription and translation from authentic Spanish books/ poems/ songs. To learn vocabulary effectively, pupils should firstly revise from Spanish to English; test themselves by covering up the translation, then revise those terms which are still incorrect. Repeat the process until all vocabulary can be recalled. Then revise from English to Spanish (sets of 3 to 5 words/phrases at a time, Look, cover, write, check), tick the correct items, move to the next set. Continue to revise incorrect items and repeat the above process until all vocabulary is correct. Test one last time by choosing English words at random from the list, write them down and check.
- We encourage our pupils to use QUIZLET and to provide an interactive way for vocabulary revision.
- As well as this, DUOLINGO must be used to improve grammar and translation, as it helps them increase their accuracy in Spanish.
- In order to improve speaking, we also encourage students to use ROCKALINGUA, where they can practice games and listen to songs to become better speakers and listeners.

Spanish – Year 8

Topics	Skills and Knowledge
Mi semana <ul style="list-style-type: none"> Talking weather Talking about freetime, my week and the weekend activities 	<ul style="list-style-type: none"> Recognise and use idioms with the verb “Hacer” Learning vocabulary to talk about free time activities (sports and hobbies) Use “gustar + verb” structure Use reflexive verbs & the radical-changing verbs Use sequencing to add interest and cohesion for writing and speaking
Me gusta comer <ul style="list-style-type: none"> Saying what you eat at different mealtimes Be aware of foods in different cultures Talking about healthy and unhealthy food 	<ul style="list-style-type: none"> Use comparison structure “more than” and “less than” Asking for food in cafes Having a conversation – inviting people to go out for a meal Ordering food and complain
Donde vivo yo <ul style="list-style-type: none"> Saying where you live Giving and understanding directions Describing your house Giving opinion of the region where you live 	<ul style="list-style-type: none"> Differentiate between SER and ESTAR Extend sentences using frequency adverbs Improve your speaking and writing using adjectives Use prepositions correctly
Las vacaciones <ul style="list-style-type: none"> Talking about means of transport, accommodation and facilities Making a reservation Holiday activities 	<ul style="list-style-type: none"> Immediate future More comparisons Adverbs Use formal and informal language correctly (tu and usted) Be aware of cultural differences in the Spanish- speaking world
¿Adónde fuiste? <ul style="list-style-type: none"> Talking about events in the past Saying what can-can’t be done in your region and why 	<ul style="list-style-type: none"> Talking about the weather in the past tense Use the verb “ir” correctly in the preterite Link sentences to avoid repetition
¿Lo pasaste bien? <ul style="list-style-type: none"> Talk about free time activities in the past 	<ul style="list-style-type: none"> Give your views on a past holidays Use the preterite of regular verbs correctly Estar, vivir

Assessment

Grammar Reading Listening Speaking Writing

- Present a dialogue to invite someone to go out and order food at the restaurant

