

**YEAR 8 CURRICULUM  
2025 - 2026**



**THE GRANGE SCHOOL**



## YEAR 8 CURRICULUM

This guide outlines the curriculum available for our year 8 students. It provides details of the following:

- Course specification
- Objectives of the course
- Course content across each term
- Assessment
- Homework / independent study
- Resources available for home-based study

### GRANGE ENTERPRISE AND LEARNING SKILLS (GELS)

In addition to helping our students acquire subject-specific knowledge and skills, we consider it vital that they develop their knowledge and understanding of the learning process itself, so that they can become more effective learners, both at school and in the future. We recognise that enterprise skills are key to students being successful at school and in the wider world. We have identified eight key enterprise and learning skills which we aim to help students develop:

- Creativity
- Independence
- Reflectiveness
- Self-Management
- Leadership
- Teamwork
- Communication
- Can-Do

These skills are taught explicitly during Enterprise lessons and will also be developed across other subjects.

### COURSES

1. Art
2. Design and Technology: *Product Design; Compliant Materials; Food Preparation and Nutrition*
3. Drama
4. English
5. Enterprise
6. Geography
7. History
8. ICT
9. Maths
10. Music
11. Modern Foreign Language: *French, Spanish or Urdu*
12. Physical Education
13. PSHE
14. Religious Studies
15. Science



## 1: Art

<b>Key Learning Objectives</b>	<p><b>Making</b> – to show an improved level of skill when making art and become more certain of what works well and is successful. To develop confidence in solving more complex art problems independently and make confident choices about which style of working suits ability and/or is the most suitable for the activity.</p> <p><b>Investigating</b> – develop your imagination skills and your ability to record your ideas and thoughts in different ways. Present your ideas, rough art workings and investigations in the most effective manner. Develop increasingly complex ideas to invent, to imagine, to record ideas, for design, to express your thoughts, and show your opinions.</p> <p><b>Knowledge</b> – to Learn about the meanings and techniques of art, learning art language to describe your thoughts and opinions of it. Discover and learn the techniques artists’ use, the ways they interpret their subject, and how they show meaning so that you can improve the way you make art.</p> <p><b>Experimenting</b> – discover different approaches to making art, learn new skills, try new things, and make positive efforts to explore unknown ways of working. To use feedback, other’s opinions, and assessment to help you become a more confident artist.</p>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<p><b><u>Architecture Project</u></b></p> <p><b>Making</b> - learners will develop observational drawing techniques to record a range of architectural features and facades. Learners will develop their skills and knowledge of how to represent a range of tones and textures visually.</p> <p><b>Investigating</b> - learners will develop their research skills to find a range of imagery that will help with developing their own ideas. Learners will start to develop their own style in how to present their sketchbook to show their work clearly.</p> <p><b>Knowledge</b> - learners will continue to build on prior knowledge of art vocabulary and key words to help them analyse their work and artists’ work using writing and oracy skills. Learners will compare a range of processes and techniques used by artists/designers to help them to develop their own outcomes.</p> <p><b>Experimenting</b> - learners will explore the styles of artists/designers and work in the style of them using similar or like for like media and techniques.</p>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<p><b><u>Architecture Project</u></b></p> <p><b>Making</b> - learners will record from secondary resources to develop studies using a range of dry and wet media including pen &amp; wash, watercolour and mixed media.</p> <p><b>Investigating</b> - learners annotate their practical, explaining what they are doing, and how it links with artists. Learners will also research other artists and designers that have used architecture as a theme or is an integral part of their art practice.</p> <p><b>Knowledge</b> - learners will learn how to analyse artwork with real life meanings and subject matters of artists who use the theme of architecture to express messages and/or create art for a specific purpose work using writing and oracy skills.</p> <p><b>Experimenting</b> - learners will investigate a range of techniques linked to architectural imagery used by contemporary and non-contemporary artists and designers.</p>
<b>Spring Term 1<sup>st</sup> Half</b>	<p><b><u>Architecture Project</u></b></p> <p><b>Making</b> - learners will make an outcome that will draw upon all observations and research explored so far.</p> <p><b>Investigating</b> - learners will use their research and their past investigations to plan and create a painting or mixed media outcome in response to the artists they have looked at.</p> <p><b>Knowledge</b> - learners will use their knowledge of the artists they have written analysis on and compared the styles of to apply their own interpretations to their own outcomes work using writing and oracy skills.</p> <p><b>Experimenting</b> – learners will select from a range of techniques and process using media from their investigations and tests from previous lessons to create final composition.</p>

<b>Spring Term 2<sup>nd</sup> Half</b>	<p><b><u>Surrealism – Ordinary/Extraordinary Project</u></b></p> <p><b>Making</b> – learners will record from direct observation, and/or from secondary resources and create a range of photographic collages.</p> <p><b>Investigating</b> - learners will collect a range of imagery and some will take their own photos to use within their project.</p> <p><b>Knowledge</b> - learners will be introduced to a range of surrealist artists to understand the messages and meanings around the art movement of Surrealism work using writing and oracy skills.</p> <p><b>Experimenting</b> – learners will experiment with collage techniques and/or drawing and painting techniques to explore composition and shape and form.</p>
<b>Summer Term 1<sup>st</sup> Half</b>	<p><b><u>Surrealism – Ordinary/Extraordinary Project</u></b></p> <p><b>Making</b> - learners will develop their skills in being able to record accurately, using a range of materials with focus on the formal elements.</p> <p><b>Investigating</b> - learners will investigate a range of techniques linked to the formal elements.</p> <p><b>Knowledge</b> - learners will look in detail at work of artists, both historical and contemporary, and be able to analyse and critique their work using writing and oracy skills.</p> <p><b>Experimenting</b> – learners will develop their skills in using media and techniques.</p>
<b>Summer Term 2<sup>nd</sup> Half</b>	<p><b><u>Surrealism – Ordinary/Extraordinary Project</u></b></p> <p><b>Making</b> - learners will develop their making skills to produce an outcome that will demonstrate increasing skills and accuracy.</p> <p><b>Investigating</b> - learners will investigate the styles of artwork they intend to make for their outcomes using a range of materials. Learners annotate their practical work explaining what they are doing, why, and how it links with artists.</p> <p><b>Knowledge</b> - learners will identify and apply aspects of the artists’ work studied within the project in their outcomes.</p> <p><b>Experimenting</b> – learners will make confident choices through evaluating their experiments with media to select processes and techniques that suit their learning style.</p>
<b>Assessments</b>	<p>Students’ work is assessed throughout the year using written and verbal feedback from teachers and self/peer assessment to review and assess their progress. Students are given termly skills assessments and end of project summative assessments that link to the Key Stage 3 Progress Objectives Grids. All Key Stage 3 students will have the Progress Objectives grid and a Sketchbook Guidance sheet in their books for reference.</p>
<b>Homework Structure</b>	<p>Homework is set once a half-term and it is expected that students spend approximately two hours on homework to ensure quality work is submitted. Homework is linked to the project of study during the term it is set in and have extension tasks to stretch and challenge learners.</p>
<b>School-based enrichment opportunities</b>	<p>Key Stage 3 Art clubs will run throughout the year after school. These will focus on a variety of skills, processes and techniques aimed to help students further develop their creative skills outside of lessons.</p>
<b>Resources available for home-based study</b>	<p><a href="#">KS3 Art and Design - BBC Teach</a>  <a href="#">Google Arts &amp; Culture</a> Explore virtual galleries and look at high quality images of works of Art.  <a href="#">Tate Kids</a>  <a href="#">Curriculum - Curriculum (continuityoak.org.uk)</a> – a range of online art lessons that may help with developing and embedding techniques and concepts taught within school.</p>

## 2: Design and Technology

<b>Key Learning Objectives</b>	<p>In Design and Technology, students work closely with the GELS skills in order to investigate, design, make, and evaluate several projects throughout KS3. Students will become independent thinkers and problem solvers whilst gaining knowledge of materials, ingredients, processes and techniques used in a range of different topics. Design and Technology also enables students to understand how Mathematics and Science can be applied through practical scenarios. All projects are designed to allow students to develop skills and be useful if they choose Design and Technology at GCSE.</p>
<b>Curriculum Content:</b>	
<b>Design and Technology: Product Design</b>	<p>Fidget Board: students work using a variety of processes to create a fidget board. In this topic, they learn to work with a range of hand tools and are taught how to select and use hand tools in the workshop safely and independently building on knowledge from year 7. Students gain a further understanding of materials and their properties. Students are also introduced to joining methods, both temporary and permanent and a range of fixtures and fittings.</p> <p><b>Key Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>• Using the workshop safely</li> <li>• Selecting, identifying and using tools</li> <li>• Working with a range of materials based on their properties</li> <li>• Casting in pewter</li> <li>• The 6 R's</li> <li>• Working to a design brief</li> <li>• Health and Safety.</li> </ul>
<b>Design and Technology: Compliant Materials</b>	<p>Mood Light: students will be learning all about graphic design and products. They will identify where graphic design is found in the world around them and will learn some skills attributed and related to this design area. Such skills include sketching, drawing techniques, rendering and using CAD/CAM to develop and enhance their designs. Students complete a packaging project where they are tasked to design and create a piece of packaging and logo for a mood light company. Students will work with the computers and machinery available in the department to design their own mood light. Gaining skills in using computers to design and learning how CAD/CAM and new technologies are used in the industry and the wider world.</p> <p><b>Key Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>• Designing and developing using computer aided design</li> <li>• Computer aided manufacturing techniques</li> <li>• Electronic skills and techniques</li> <li>• New technologies</li> <li>• Selecting tools and equipment</li> <li>• Packaging development</li> <li>• Working to a design brief</li> <li>• Working with a client</li> </ul>
<b>Food Preparation and Nutrition</b>	<p>Food: students further establish their knowledge of safe food practice and nutrition. Students learn to make a variety of more complex dishes that build their skills and understanding of how to prepare and handle food safely. They will also carry out a mini science investigation exploring how starches thicken liquids.</p> <p><b>Key Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Knife skills</li> <li>• Following more complex recipes</li> <li>• Ingredients and their purpose</li> <li>• Safe food handling and storage</li> <li>• Meat handling and risk assessment.</li> </ul>

<b>Assessments</b>	<p>Students' work is assessed throughout the D&amp;T rotation and will be given a level at the end of each rotation. As well as marking and feedback in books, students will also have two formative assessments at mid points through the module to monitor their progress. They will be assessed across two of the key areas of focus, seen below, during each rotation:</p> <ul style="list-style-type: none"> <li>• Investigation and Research</li> <li>• Design and Development</li> <li>• Manufacture</li> <li>• Evaluation and Analysis.</li> </ul> <p>For each of these areas, students will gain a mark from T5, T6, 1, 2, 3, 4, 5, and 6. In addition to this, students will sit an end of rotation test to check their understanding of the topics taught.</p>
<b>Homework Structure</b>	<p>Homework is set in a grid giving a range of D&amp;T homework activities. Students will select the activities they wish to complete in their own time. Homework activities in the grid have different levels of challenge, a homework that is easily achieved is worth one point and the more challenging and time-consuming homework is worth four points. Each rotation students will be expected to complete homework that equals six points.</p>
<b>School-based enrichment opportunities</b>	<p>Trips and Visits to be arranged.</p>
<b>Resources available for home-based study</b>	<p><a href="http://www.technologystudent.com">www.technologystudent.com</a>  <a href="http://www.hoddereducation.co.uk">Exploring Design and Technology for Key Stage 3: Boost eBook (hoddereducation.co.uk)</a></p>

### 3: Drama

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Reinforce ground rules and expectations including the use of the Drama Spaces.</li> <li>• Develop and nurture the skills necessary for drama to take place.</li> <li>• Provide opportunities for discussion work and both teacher and self-assessment of individual and group strengths and weaknesses.</li> <li>• Develop students' confidence and skill in using performance skills.</li> <li>• Develop students' confidence and ability to structure drama creating, performing and reflecting.</li> <li>• Develop students' use of evaluation and target setting.</li> </ul> <p><b>By the end of the year students will have:</b></p> <ul style="list-style-type: none"> <li>• identified and been able to demonstrate some of the social and group skills necessary for effective drama to take place.</li> <li>• used performance skills i.e. audience awareness, spatial awareness, gesture, facial expressions and voice projection, mime and movement</li> <li>• created, performed and reflected on many different performances in drama.</li> <li>• learnt to reflect on individual and collective strengths and weaknesses.</li> <li>• identified, understood, and developed their confidence and ability to use a variety of different drama skills to explore themes issues and characters</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn term 1<sup>st</sup> Half</b>	<b>Roles and Characters:</b> Developing students understanding of roles and characters. Enhancing abilities to prepare and perform different roles and characters in plays.
<b>Autumn term 2<sup>nd</sup> Half</b>	<b>Silent Movies and Slapstick:</b> Working on mime, physicality and the importance of recorded sound. Students will develop physical performance to prepare for scripted work ahead.
<b>Spring term 1<sup>st</sup> Half</b>	<b>Scripted Exploration 1:</b> Re-cap skills, demands and expectations when approaching a script. Students will explore the themes of the play off-text and apply knowledge to their characters and scenes.
<b>Spring term 2<sup>nd</sup> Half</b>	<b>Scripted Exploration 2:</b> Students will continue to prepare a section of the play for performance, learning lines, considering design and including techniques in order to communicate a message. Students will develop their ability to reflect on this process and creative decisions.
<b>Summer term 1<sup>st</sup> Half</b>	<b>Practitioners and Styles:</b> Students will be introduced to 3 notable theatre practitioners and their different styles of performance. They will experiment with these styles in workshops and create their own work in response, reflecting on their ability to create meaning for the audience.
<b>Summer term 2<sup>nd</sup> Half</b>	<b>Directing and Devising:</b> Students will uncover the role of a director and the many things they have to consider to achieve performance aims. Students will devise their own work with a key message in mind, using their knowledge of styles to drive their pieces.
<b>Assessments</b>	Students will be assessed formally once every term in lessons. Students will be assessed on the skills they have been developing throughout each topic, using previous feedback to show progress over time. Every student will have a folder containing an assessment booklet for each term, these include success criteria, opportunities for formative assessment, homework tasks and space for student reflection.
<b>Homework Structure</b>	Homework will consist of research tasks, some short written tasks and reflections set when appropriate (usually once per term). Tasks will be embedded in student's Drama folders.
<b>School-based enrichment opportunities</b>	There will be an opportunity for students to get involved with rehearsals outside of lessons to develop their skills. At least once every two years there will be a whole school production where all students are welcome to audition. We also have a weekly Drama club that is open to all.
<b>Resources available for home-based study</b>	All students are encouraged to go on theatre and cinema visits, take part in backstage tours where possible and read plays by a variety of playwrights, covering a variety of genres. To develop performance skills further, students are also encouraged to join local youth theatre companies.

## 4: English

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Improve spelling, punctuation and grammar skills.</li> <li>• Develop ability to read texts for understanding, and to analyse the techniques writers use, and their effects on the reader.</li> <li>• Develop ability to write different text types for a range of purposes and audiences.</li> <li>• Develop ability to speak confidently and effectively in a range of situations, formal and informal.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<b>Fantasy and adventure - Short story – A sound of thunder</b> Building on analytical skills introduced in Year 7. Analysis of characters, plot and themes in prose texts. Looking at the language and tone in a fictional text. Authorial intent. Analysis of language and structure and tone, using PETAL.
<b>Autumn Term 2<sup>nd</sup> Half</b>	<b>Judging Others</b> Exploring prejudice and its effects through non-fiction taken from the book I am Malala.
<b>Spring Term 1<sup>st</sup> Half</b>	<b>Social media - Viewpoint writing</b> Exploring how people present viewpoints and opinions. Understanding how social media is presented in articles and reviews. Learn how to use language to present a viewpoint on social media.
<b>Spring Term 2<sup>nd</sup> Half</b>	<b>Relationships - The boy in the striped pyjamas – play</b> Development of drama text analysis skills introduced in the Shakespeare scheme, with a focus on stage directions and character development. Cultural capital – explore the historical context of the play.
<b>Summer Term 1<sup>st</sup> Half</b>	<b>War poetry:</b> Building on the skills introduced in the Year 7 poetry scheme, develop: understanding of poetry and poetic devices. Analysis of a range of poetry exploring themes of war, violence, power and conflict. Exploring a range of poetic structures.
<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Politics and dystopia Animal Farm – reading and creative writing</b> Good reading leads to good writing. Building on narrative and descriptive writing skills introduced in Year 7, further develop: descriptive and narrative writing skills. How to structure narrative texts according to purpose, audience and format. Literary techniques. Writing with technical accuracy. Cultural capital – exposure to this key text, and its political context.
<b>Assessments</b>	Two marked pieces of assessment either on reading or writing as per each Scheme of Learning. Assessments are in the format of the new GCSE exams and students are graded from 1-9. Assessments allow students to become familiar with the format of the English Language and English Literature exams that they will encounter in Year 11.
<b>Homework Structure</b>	Students to complete homework once a fortnight. This could be a task set by the teacher from the lesson, a choice of differentiated homeworks from the homework menu (on Satchel One) or a variety of quizzes designed to improve vocabulary and spelling (on Satchel One).
<b>School-based enrichment opportunities</b>	Book club, writing group, activities for World Book Day.
<b>Resources available for home-based study</b>	Resources on VLE.

## 5: Enterprise

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Understand and develop a wide range of enterprise and learning skills (GELS).</li> <li>• Understand more about the recruitment process and applying for jobs</li> <li>• Start thinking about employment and possible pathways</li> <li>• To raise aspirations re careers and possibilities</li> <li>• To develop a more practical understanding of Core British Values</li> <li>• To build resilience and healthy habits</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Introduction to the course – career pathways</li> <li>• Subway Challenge – developing GELS</li> <li>• My Learning Journey – reflection and focus on 3 potential careers</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Employability Skills – concrete and transferrable, link to future careers</li> <li>• Careers Paths and stereotypes – breaking down gender stereotypes and consider various educational routes</li> <li>• Business Plans and Self-employment – entrepreneurship and real business stories</li> </ul>
<b>Spring Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Personal Finance – loans and savings</li> <li>• Labour Market Information – consider changes and review past LMI work</li> <li>• Green Jobs – explore the types and future demand for these types of jobs. Match to their own aspirations and skills</li> <li>• Careers Fair – preparation and review</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Learning from Failure – building resilience</li> <li>• What it means to be enterprising – CV writing and skills needed</li> </ul>
<b>Summer Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Future Plans – chance to look back at the Morrisby data and their own research via the My Career Journey folder</li> <li>• British Values – understanding and application of the 4 key values</li> </ul>
<b>Summer Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• British Values – continue to explore and discuss their relevance today</li> <li>• Pitching ideas – pushing ideas and presentation skills</li> <li>• Metacognition – continue to look at ways to improve learning and independence</li> </ul>
<b>Assessments</b>	There are no formal assessments in Enterprise, however students will complete termly reflections, these will be added to student’s careers journey folders.
<b>Homework Structure</b>	Research-based homework may be set by teachers in order to enhance understanding or to prepare for future lessons, although there is no set requirement to do so in these lessons.

## 6: Geography

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>To foster an awareness of the changing world and our responsibility in safeguarding the environment for the future.</li> <li>To encourage students to investigate and interpret the world around them and provide them with the skills necessary to do so.</li> <li>To develop spatial awareness.</li> <li>To be able to analyse and evaluate information.</li> <li>To investigate the issues that affect us.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<b>Rivers and Floods</b> The water cycle and the journey of a river. To investigate the how rivers change our landscape and the impact that it has on the environment.
<b>Autumn Term 2<sup>nd</sup> Half</b>	<b>Future Floods</b> Is flooding becoming more frequent and how can it be managed? How is climate change affecting the frequency of flooding and how can it be managed?
<b>Spring Term 1<sup>st</sup> Half</b>	<b>Population dynamics</b> How and why is the global population changing and the impact on the planet
<b>Spring Term 2<sup>nd</sup> Half</b>	<b>Migration</b> Why are people migrating from one area to another?
<b>Summer Term 1<sup>st</sup> Half</b>	<b>Ecosystems</b> What is my environment like and how can we investigate changes in the environment?
<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Ecosystems</b> How is our environment different to other environments?
<b>Assessments</b>	Flooding assessment. Climate Assessment. Ecosystems Assessment
<b>Homework Structure</b>	Set fortnightly. Achievement for good and outstanding homework.
<b>School-based enrichment opportunities</b>	Eco-club. Located study. Fieldwork at Thames River Centre
<b>Resources available for home-based study</b>	Reading widely improves the level and depth of understanding. Conducting independent research. Encouraging an interest in environment. Use the BBC Bitesize website to aid your learning.

## 7: History

<b>Key Learning Objectives</b>	The department aims to deliver a comprehensive History curriculum, accessible by all and stretching for those who require additional challenges. We aim to motivate the student to achieve success, to develop an enquiring mind which seeks to delve further into history on a lifelong basis.
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<b>Why was there so much religious turmoil in Tudor England?</b> <ul style="list-style-type: none"> <li>Henry VIII and Martin Luther, The Break with Rome</li> <li>Continued reformation under Edward VI</li> <li>Counter-reformation under Mary I</li> <li>Religious Settlement of Elizabeth I Elizabeth.</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<b>Was Elizabethan England a 'Golden Age'?</b> <ul style="list-style-type: none"> <li>Problems faced by the Queen</li> <li>Use of Propaganda</li> <li>Mary, Queen of Scots</li> <li>Spanish Armada</li> <li>Elizabethan culture</li> </ul>
<b>Spring Term 1<sup>st</sup> Half</b>	<b>James I to Charles I- How did the king lose control of his kingdom?</b> <ul style="list-style-type: none"> <li>Union of England and Scotland under James I</li> <li>The Gunpowder Plot</li> <li>Start of the Witch craze</li> <li>Reign of Charles I</li> <li>Causes of the English Civil War</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half</b>	<b>Why did England go from a monarchy to a republic and back again?</b> <ul style="list-style-type: none"> <li>Main battles of the civil war</li> <li>New Model Army – Cavaliers vs. Roundheads</li> <li>Execution of Charles I</li> <li>Life in Cromwell's protectorate</li> <li>Restoration and the Glorious Revolution</li> </ul>
<b>Summer Term 1<sup>st</sup> Half</b>	<b>How far did the industrial revolution change Britain?</b> <ul style="list-style-type: none"> <li>Britain in 1750</li> <li>Industrial Revolution: birth of factories, creation of towns, movement of people</li> <li>Living and working conditions for the workers</li> <li>Changes in transportation</li> <li>Age of invention</li> </ul>
<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Empire- How did little Britain become 'Great'?</b> <ul style="list-style-type: none"> <li>Why did Britain want an Empire?</li> <li>Britain in America, India, Australia, Africa</li> <li>Impact and legacy of Empire</li> </ul>
<b>Assessments</b>	One extended written assessment per half term which includes a multiple-choice quiz. Extended piece of writing at the end of all lessons that can be self/peer or teacher assessed.
<b>Homework Structure</b>	Set every three weeks.
<b>School-based enrichment opportunities</b>	Previous trips have included a visit to Black Country Museum; Project on the Tudors and Stuarts.
<b>Resources available for home-based</b>	Reading widely improves the level and depth of understanding. Conducting independent research. Encouraging an interest in historical events.

## 8: IT and Computer Science – Year 8

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To solve problems independently, using Python.</li> <li>• To select software appropriately.</li> <li>• To understand how computers are linked together and how information is stored.</li> <li>• To write requirements and specifications and use them when designing and developing systems.</li> <li>• To look at the use of computers and how to keep themselves safe when doing so.</li> <li>• To reflect on the work produced and to develop it further.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<b>Computer Crime and Cybersecurity:</b> In this unit of work students will look at Emails, scams, protecting personal data, hacking, copyright and health and safety when using the computer.
<b>Autumn Term 2<sup>nd</sup> Half</b>	<b>Spreadsheets:</b> In this section, students will look at developing and manipulating a model, using a range of more advanced skills. They will use graphs and be able to present their data in a range of ways. The students will investigate what happens when data in a model is changed and the impact it has on other data.
<b>Spring Term 1<sup>st</sup> Half</b>	<b>Spreadsheets cont.</b> <b>E-Safety:</b> In this unit of work, students will be looking at online communication and how to keep themselves safe. They will look at what information they should share and also what to do if they have a problem.
<b>Spring Term 2<sup>nd</sup> Half</b>	<b>E-safety Cont.</b> <b>Networks:</b> In this unit of work, students will look at how computers can be connected in different ways. How information can be stored in the cloud.
<b>Summer Term 1<sup>st</sup> Half</b>	<b>Python 1:</b> In this unit of work, students will start to develop their skills in Python and will look at writing short programs.
<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Python 1:</b> In this unit of work, students will start to develop their skills in Python and will look at writing short programs.
<b>Assessments</b>	Each of the practical units of work will have some assessment. Some units will have small individual assessments in them, others will work towards creating one final piece of assessed work. The theory units of work will be assessed by a test at the end of the unit.
<b>Homework Structure</b>	Homework will be set throughout the units of work. Some of the homework will be paper based and others will be interactive work e.g. on Doodle. All of the homework will be recorded on SatchelOne.
<b>School-based enrichment opportunities</b>	Students have access to computers and printers in the lunchtime Homework club and also in the afterschool homework club. These operate every day.
<b>Resources available for home-based study</b>	Resources from the lesson can be found on the Grange VLE <a href="https://virtual.grange.bucks.sch.uk">https://virtual.grange.bucks.sch.uk</a>

## 9: Mathematics

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Students should consolidate and increase their mathematical knowledge from Key Stage 2 and Y7.</li> <li>• Students will make links across different areas of mathematics to deepen their understanding.</li> <li>• Students will be able to recognise and interpret multiple representations of mathematical concepts and use precise mathematical vocabulary.</li> <li>• Student should build skills related to mathematical reasoning and problem solving.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Geometric Reasoning</li> <li>• Sets and Probability</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Prime Numbers and Proof</li> <li>• Ratio and Scale</li> </ul>
<b>Spring Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Multiplicative Change</li> <li>• Multiplication and Division of Fractions</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Working in the Cartesian Plane</li> <li>• Representing Data</li> <li>• Tables and Probability</li> </ul>
<b>Summer Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Brackets, Equations and Inequalities</li> <li>• Sequences</li> </ul>
<b>Summer Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Indices</li> <li>• Fractions and Percentages</li> <li>• Standard Form</li> </ul>
<b>Assessments</b>	<ul style="list-style-type: none"> <li>• End of term assessments. Individual Question Level Analysis sheets are completed for every student. Copies are sent home so students can use Sparx Maths to close skills gaps.</li> <li>• Small assessments will be carried out at the end of most units of work</li> <li>• All assessments are teacher marked.</li> </ul>
<b>Homework Structure</b>	Homework will be set weekly via the online platform Sparx Mathematics. Homework tasks will include recall of current topics in the classroom; consolidation of previous topics; and times table practice.
<b>School-based enrichment opportunities</b>	<ul style="list-style-type: none"> <li>• Opportunity to participate in the UK Maths challenge.</li> </ul>
<b>Resources available for home-based study</b>	<p>Students have online access to Sparx Mathematics, which may also be used as a teaching/revision resource.</p> <p>The Maths department also share useful consolidation/revision websites with students and parents throughout the course.</p>

## 10: Music

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To increase awareness of the cultural and historical context of a wide variety of different musical genres.</li> <li>• To develop the skills to perform music with others.</li> <li>• To be able to create original music that is structured and expressive.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<b>Vocal Project:</b> Exploring a range of vocal styles of music and composing using voices. Focusing on Scat, Beatboxing and Rap.
<b>Autumn Term 2<sup>nd</sup> Half</b>	<b>Haunted House:</b> Discovering how composers make music. sound 'scary'. Performing well-known scary film themes. Using classical techniques to create scary sounding music.
<b>Spring Term 1<sup>st</sup> Half</b>	<b>African Drumming:</b> Exploring the techniques to play Djembe. Creating whole class and small group performances using given rhythmic notation. Composing in the style of African music using the djembe.
<b>Spring Term 2<sup>nd</sup> Half</b>	<b>Music for Animation:</b> Analysing how music is used in. animation. Listening to examples and exploring how the music reflects the action. Using these techniques to create our own music for animation.
<b>Summer Term 1<sup>st</sup> Half</b>	<b>Ukulele Skills:</b> Building on playing skills and techniques learned in Y7 to perform a well-known song using strumming and picking techniques.
<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Make a Band 2:</b> Exploring common 'band' instruments. Learning the basics of Guitar, bass guitar and drum kit. Using these instruments to prepare and perform a popular song.
<b>Assessments</b>	Each half-term unit will be assessed in the classroom during lessons. Some projects will be assessed at different stages through regular performances.
<b>Homework Structure</b>	Appropriate tasks relating to each topic will be completed during the unit. These may be research, practice or listening to given extracts of music.
<b>School-based enrichment opportunities</b>	Choir, Orchestra, termly Concerts, solo practice sessions. Instrumental and vocal lessons are also available through the Aylesbury Music Service.
<b>Resources available for home-based study</b>	Wider listening through sites such as YouTube or music streaming services as appropriate.

## 11a: French – Year 8

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To describe where you live and your house. To say what you eat for breakfast.</li> <li>• To talk about your town, issue invitations and order food. To use the near future tense.</li> <li>• To detail your holidays using past tenses of regular and irregular verbs (avoir and être).</li> <li>• To talk about festivals and celebrations.</li> <li>• To use transactional language when purchasing items.</li> <li>• To reference digital technology and include your opinions.</li> <li>• To describe your region.</li> <li>• To detail your daily routine.</li> <li>• To talk about sport and leisure activities using comparatives.</li> <li>• To give information about illness and use transactional language when booking appointments.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half Module 4 – Dynamo 1</b>	<ul style="list-style-type: none"> <li>• To say where you live and give detail about the location of your house</li> <li>• To describe your house</li> <li>• To say what you eat / don't eat and drink for breakfast</li> <li>• To learn to describe what is in your town</li> <li>• To use aller to say where you go.</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half Module 4/5 Dynamo 1</b>	<ul style="list-style-type: none"> <li>• To use modal verbs to issue invitations</li> <li>• To differentiate between tu and vous verb forms</li> <li>• To practice transactional language - ordering food</li> <li>• To learn the near future tense</li> <li>• To use the present and near future tenses together.</li> </ul>
<b>Spring Term 1<sup>st</sup> Half Module 4/5 Dynamo 1 (Cont) Module 1 Dynamo 2</b>	<ul style="list-style-type: none"> <li>• To talk about school holidays and revise avoir / être</li> <li>• To learn the past tense- passé compose of regular -er verbs</li> <li>• To use irregular verbs in the past tense</li> <li>• To learn passé compose using être as an auxiliary.</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half Module 1 Cont &amp; 2 Dynamo 2</b>	<ul style="list-style-type: none"> <li>• To negate past tense verbs.</li> <li>• To ask and answer questions using two tenses.</li> <li>• To talk about festivals and celebrations using likes and dislikes.</li> <li>• To describe festivals and special days using -re and -ir verbs.</li> <li>• To buy food at a market using transactional language.</li> </ul>
<b>Summer Term 1<sup>st</sup> Half Module 2 cont &amp; 3 Dynamo 2</b>	<ul style="list-style-type: none"> <li>• To answer questions in target language.</li> <li>• To use the future tense in questions.</li> <li>• To learn about Television and media and use adjectival agreements.</li> <li>• To describe digital technology.</li> <li>• To issue cinema invitations and use transactional language to buy tickets.</li> <li>• To reference leisure events using negatives.</li> </ul>
<b>Summer Term 2<sup>nd</sup> Half Module 3 cont Module 4 Dynamo 2</b>	<ul style="list-style-type: none"> <li>• To deal with past tenses and synonyms in a reading text.</li> <li>• To use three tenses when speaking.</li> <li>• To describe past events.</li> <li>• Where you went.</li> <li>• Perfect tense with etre.</li> </ul>
<b>Assessments</b>	<p>There will be Reading, Listening, Writing and Translation tests set at the end of each topic and students will prepare Speaking tasks – photo cards/role plays in addition to these.</p>
<b>Homework Structure</b>	<p>Homework will be set via Bromcom on a weekly basis and tasks completed at the back of exercise books.</p>

## 11b: Spanish Year 8

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>To describe your town</li> <li>To use transactional language to order food</li> <li>To learn about the near future tense</li> <li>To talk about past holidays using past tenses</li> <li>To detail digital technology and media preferences</li> <li>To say what you like/dislike to eat and to order food</li> <li>To use modal and reflexive verbs</li> <li>To use comparatives and superlatives</li> <li>To write , speak, listen and read in three tenses.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn term 1<sup>st</sup> Half Viva 1 Module 4 cont</b>	<ul style="list-style-type: none"> <li>To describe your family and use possessive adjectives</li> <li>To revise colours and describe hair and eyes</li> <li>To use third person verbs in descriptions</li> <li>To describe where you live using estar</li> <li>To learn dictionary skills to help in translations.</li> </ul>
<b>Autumn term 2<sup>nd</sup> Half Viva 1 Module 5</b>	<ul style="list-style-type: none"> <li>To describe your town using articles and partative articles</li> <li>To tell the time and use Ir – to go</li> <li>To use transactional language to order food using modal verbs</li> <li>To say what you are going to do at the weekend using near future tenses</li> <li>To listen for detail in town descriptions.</li> </ul>
<b>Spring term 1<sup>st</sup> Half Module 5 cont Viva 2 Module 1</b>	<ul style="list-style-type: none"> <li>To detail a past holiday using the preterite of ir</li> <li>To use regular -ar verbs in the preterite</li> <li>To learn -er and -ir verbs in the preterite</li> <li>To use ser in the part tense</li> <li>To learn how to add detail to past accounts.</li> </ul>
<b>Spring term 2<sup>nd</sup> Half Viva 2 Module 1 cont &amp; 2</b>	<ul style="list-style-type: none"> <li>To say what you use your phone for</li> <li>To revise the present tense</li> <li>To say what music you like / dislike and give a range of opinions</li> <li>To use the comparative when talking about TV</li> <li>To use the preterite and present to say what you did yesterday</li> <li>To use authentic text when reading.</li> </ul>
<b>Summer term 1<sup>st</sup> Half Viva 2 Module 2 cont &amp; 3</b>	<ul style="list-style-type: none"> <li>To say what food you like/dislike and use a wider range of opinions</li> <li>To discuss mealtimes and use negatives</li> <li>To use transactional language and modal verbs to order food</li> <li>To learn about usted/ ustedes forms of You</li> <li>To discuss what to buy for a party using near future</li> <li>To give an account of a party using three tenses.</li> </ul>
<b>Summer term 2<sup>nd</sup> Half Viva 2 Module 3 cont &amp; 4</b>	<ul style="list-style-type: none"> <li>To talk about what you do and what you are going to do</li> <li>To decline and issue invitations using modal verbs</li> <li>To say what someone else likes and dislikes.</li> </ul>
<b>Assessments</b>	There will be Reading, Listening, Writing and Translation tests set at the end of each topic and students will prepare Speaking tasks – photo cards/role plays in addition to these.
<b>Homework Structure</b>	Homework will be set on a weekly basis via Bromcom and tasks should be completed at the back of exercise books.

## 11c: Urdu - Year 8

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To be able to talk about your home, and where you live.</li> <li>• To be able to name animals, birds and food.</li> <li>• To be able to describe the weather and names of seasons.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Joint handwriting</li> <li>• Names of different animals and birds</li> <li>• Counting (1-50).</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Different means of transport</li> <li>• Composing short sentences</li> <li>• Describing your relatives.</li> </ul>
<b>Spring Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Learning about Pakistan (culture, food, festivals etc)</li> <li>• Describing an area you live in.</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• Reading different types of texts</li> <li>• Translating Urdu into English.</li> </ul>
<b>Summer Term 1<sup>st</sup> Half</b>	<ul style="list-style-type: none"> <li>• Talking about your hobbies</li> <li>• Talking about different types of weather.</li> </ul>
<b>Summer Term 2<sup>nd</sup> Half</b>	<ul style="list-style-type: none"> <li>• To be able to use present and past tenses and negative sentences</li> <li>• Write a diary about what you are going to do on holiday.</li> </ul>
<b>Assessments</b>	Vocabulary tests will be set as homework and end-of-unit tests will also be conducted in all skills areas.
<b>Homework Structure</b>	Will be set on a weekly basis on Bromcom. Evidence for learning should be shown and parental support in ensuring homework is done is always welcome.
<b>Resources available for home-based study</b>	<p>Students may wish to purchase their own copies of the textbook – “New National Curriculum Basic Level Urdu Key Stage 3 textbook and workbook.</p> <p><a href="http://www.bbc.co.uk/urdu">www.bbc.co.uk/urdu</a>  <a href="http://www.jung.com.pk">www.jung.com.pk</a> <a href="http://www.urdufun.com">www.urdufun.com</a></p>

## 12: Physical Education

<b>Key Learning Objectives</b>	<p>Students are given the opportunities to produce complete units of work to help them achieve the overall concept of becoming versatile performers. This is achieved through the development of movement skills performed in different situations and the application of rules. We have created single gender groups and mixed gender groups to create different pathways within levels of performance and raising the standard of physical literacy and building an enjoyment of participation in physical activity. They will spend lessons developing what they:</p> <ul style="list-style-type: none"> <li>• <b>Know</b> - procedural knowledge in how to perform skills and rules of activities and decision making. The importance of using advanced skills in controlling movements.</li> <li>• <b>Show</b> - fluency of movement skills in isolation and in conditioned games. It will also, cover evaluating and improving.</li> <li>• <b>Grow</b> - linked with the school's core value and ethos such as creativity and a can-do attitude and making informed choices about healthy, active lifestyles.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn term 1<sup>st</sup> half</b>	Rugby and Badminton for single gender groups Gymnastics and Orienteering for mixed gender groups
<b>Autumn term 2<sup>nd</sup> half</b>	Basketball and Netball for single gender groups Fitness and Football for mixed gender groups
<b>Spring term 1<sup>st</sup> half</b>	Handball and Fitness for single gender groups Rugby and Basketball for mixed gender groups
<b>Spring term 2<sup>nd</sup> half</b>	Gymnastics and Football for single gender groups Netball and Badminton for mixed gender groups
<b>Summer term 1<sup>st</sup> half</b>	Athletics.
<b>Summer term 2<sup>nd</sup> half</b>	Cricket. Rounders. Tennis
<b>Assessments</b>	<p>Students are assessed each half term on the activities they have completed. The criteria used to assess are based on their practical ability within each activity and criteria that staff have agreed in meetings/moderation based around the development of interpersonal skills. The criteria produce a step number which is then used as an average over the course of the year.</p>
<b>Homework Structure</b>	<p>Students are not currently set homework.</p>
<b>School-based enrichment opportunities</b>	<p>All students are encouraged to attend extra-curricular sports clubs, represent school sports teams and set targets for improvement and to participate in inter form competitions.</p>
<b>Resources available for home-based study</b>	<p>Community based clubs/activities.</p>

## 13: PSHCE

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To be aware of issues that affect our safety.</li> <li>• To take part in an active citizenship campaign.</li> <li>• To gain an understanding of our sexual health and be able to seek appropriate advice and services.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<p><b>Healthy Lifestyles: PSHCE</b>            Topics include:</p> <ul style="list-style-type: none"> <li>• Healthy Eating.</li> <li>• Eating Disorders.</li> <li>• Mental Health.</li> <li>• Smoking &amp; Tobacco.</li> </ul> <p><b>Healthy living campaign:</b> students choose a topic to raise awareness of and complete an awareness campaign (thinking about target audience and delivery method).</p>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<p><b>Media Navigator</b>            An introduction to media literacy and social media. To understand the benefits and risks of social media and consider how the online world affects your identity.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• introduction to Media Literacy and Social Media</li> <li>• Fantasy and Reality</li> <li>• Advantages and Disadvantages of Social Media and Setting Boundaries 4</li> <li>• Benefits of Social Media</li> <li>• Creating Identity Maps</li> <li>• Presenting Identity Maps</li> </ul>
<b>Spring Term 1<sup>st</sup> Half</b>	<p><b>British Values and Democracy</b></p> <ul style="list-style-type: none"> <li>• What is your identity?</li> <li>• What does it mean to be British?</li> <li>• Political parties in Britain.</li> <li>• Mock Election (using the main political parties)</li> <li>• Extremist ideas – how do we combat them?</li> <li>• Topical political issues discussion and debate.</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half</b>	<p><b>Make An Impact: Citizenship</b>            In this module, students choose an issue that is of importance to them and raise awareness of it. Before they do this, they look at historical campaigns:</p> <ul style="list-style-type: none"> <li>• Suffragettes.</li> <li>• Immigration in the U.K. – focusing on Enoch Powell and whether he was right to predict that mass migration would cause problems to the United Kingdom.</li> </ul> <p>Students then start building up their own campaigns having workshops/mini lessons on the following:</p> <ul style="list-style-type: none"> <li>• Manifesto writing.</li> <li>• Action planning.</li> </ul>
<b>Summer Term 1<sup>st</sup> Half</b>	<p><b>Mental Health Investigated.</b> Topics to include:</p> <ul style="list-style-type: none"> <li>• Defining mental health.</li> <li>• The science of mental illness.</li> <li>• Understanding mental illness.</li> <li>• Mental illness: triggers, protective factors and promoting wellbeing Lesson 5: Mental illness: spotting and supporting.</li> <li>• Healthy coping strategies.</li> <li>• Reducing mental health stigma.</li> </ul>

<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Relationships and sex education.</b> Topics to include: <ul style="list-style-type: none"> <li>• Different types of relationships.</li> <li>• What to do if relationships go wrong (Changes in the body (puberty)).</li> <li>• Anatomical lesson on sex organs.</li> <li>• Recognise the traits of a healthy relationship.</li> <li>• To understand how puberty changes you as a young person and to be able to define consent and apply it to your life.</li> <li>• What does it mean to love somebody?</li> </ul>
<b>Assessments</b>	<p>Students will be assessed on their effort in extended pieces of writing and tasks (for example, a Sun Safety awareness work or their Make an Impact campaign).</p> <p>Assessment will take various forms including self/peer/teacher assessment using What Went Well, Even Better If and Green Pen marking.</p> <p>At the end of each topic students will benchmark their own progress in terms of the knowledge acquired, their effort and their next steps.</p>
<b>Homework Structure</b>	<p>Not set, in line with department policy.</p>
<b>School-based enrichment opportunities</b>	<p>Youth Magistrates Competition.</p>
<b>Resources available for home-based study</b>	<p>N/A.</p>

## 14: Religious Studies

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• To examine and explore the key concepts of new religious movement. (NRM)</li> <li>• To gain understanding of the 6 major religions core beliefs through a thematic approach.</li> </ul>
<b>Curriculum Content: Students will focus on two main big questions each term.</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>	<b>Why are new spiritualities emerging?</b> <ul style="list-style-type: none"> <li>• Zoroastrianism</li> <li>• Rastafarianism</li> <li>• Bahai's beliefs</li> <li>• Humanism</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half</b>	<b>Why should we value ethics?</b> <ul style="list-style-type: none"> <li>• Utilitarianism</li> <li>• Situation ethics</li> <li>• Natural law</li> <li>• Medical ethics</li> </ul>
<b>Spring Term 1<sup>st</sup> Half</b>	<b>How important is equality?</b> <ul style="list-style-type: none"> <li>• The holocaust</li> <li>• The Golden rule</li> <li>• The Eightfold path</li> </ul>
<b>Spring Term 2<sup>nd</sup> Half</b>	<b>Is religion relevant?</b> <ul style="list-style-type: none"> <li>• Religion and gender equality</li> <li>• Islamophobia</li> <li>• Religion and equality</li> </ul>
<b>Summer Term 1<sup>st</sup> Half</b>	<b>Is religion dangerous?</b> <ul style="list-style-type: none"> <li>• Extremism</li> <li>• Terrorism</li> <li>• War and conflict</li> <li>• Forgiveness</li> </ul>
<b>Summer Term 2<sup>nd</sup> Half</b>	<b>Do we need religion if we have science?</b> <ul style="list-style-type: none"> <li>• Creationsim vs evolution</li> <li>• Humans' vs robots</li> <li>• Humans' vs animals</li> <li>• Artificial intelligence</li> </ul>
<b>Assessments</b>	A Key term assessment is conducted every half term.
<b>Homework Structure</b>	An extended writing task will be set every other term to assess students' knowledge ad test understanding and application.
<b>School-based enrichment opportunities</b>	Assemblies Guest Speaker focusing on Humanism.

<b>Resources available for home-based study</b>	Visiting websites – <a href="#">Facts about Christianity – KS3 Religious Studies – BBC Bitesize</a> <a href="#">Facts about Islam – KS3 Religious Studies – BBC Bitesize</a> <a href="#">Facts about Judaism - KS3 Religious Studies - BBC Bitesize</a> <a href="#">Facts about Buddhism – KS3 Religious Studies – BBC Bitesize</a> <a href="#">Facts about Hinduism – KS3 Religious Studies – BBC Bitesize</a> <a href="#">Key facts about Sikhism – KS3 Religious Studies – BBC Bitesize</a> <a href="#">Facts about non-religious beliefs – KS3 Religious Studies – BBC Bitesize</a> <a href="http://www.world-faiths.com">www.world-faiths.com</a> <a href="http://www.rsweb.org.uk">www.rsweb.org.uk</a>
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## 15: Science

<b>Key Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Develop scientific thinking and curiosity.</li> <li>• Develop scientific investigation skills to plan experiments or devise procedures to make observations, produce or characterise a substance, test hypotheses, check data or explore phenomena.</li> <li>• Apply knowledge and understanding of scientific concepts to unfamiliar and real-life situations.</li> </ul>
<b>Curriculum Content:</b>	
<b>Autumn Term 1<sup>st</sup> Half</b>  <b>September - October</b>	<p>The curriculum of study describes a sequence of knowledge and concepts. While it is important that students make progress; it is also vitally important that they develop secure understanding of each key block of knowledge and concepts to progress to the next stage.</p> <p><b>Topics:</b></p> <p><b><u>Revisit the Introduction to the Laboratory and Investigation Skills</u></b>  There are four key investigations in this course. Students revisit laboratory rules, health and safety, collaborate group practical skills and evaluation skill writing.</p> <p><b><u>Energy</u></b>  In this topic students will learn about:</p> <ul style="list-style-type: none"> <li>• Compare the energy in foods with the energy needed for different activities</li> <li>• Explain what brings about changes in energy</li> <li>• Describe what happens when you heat up solids, liquids and gases</li> <li>• Describe how energy is transferred by particles in conduction and convection</li> <li>• Describe some sources of infrared radiation</li> <li>• Describe the difference between a renewable and non-renewable energy resource</li> <li>• Explain the difference between energy and power</li> <li>• Calculate work done and apply the conservation of energy to simple machines.</li> </ul> <p>Cross Curricular Skills:</p> <p>Literacy</p> <ul style="list-style-type: none"> <li>• Specialist vocabulary of Physics.</li> </ul> <p>Numeracy</p> <ul style="list-style-type: none"> <li>• Understanding energy in food</li> <li>• calculating work done and mean averages</li> <li>• calculating power</li> <li>• use of equations.</li> </ul> <p>Thinking Skills</p> <ul style="list-style-type: none"> <li>• Evaluating rate of transfer in a home</li> <li>• Explaining why insulating your house reduces energy bills</li> <li>• Making predictions and evaluating results.</li> </ul>
<b>Autumn Term 2<sup>nd</sup> Half</b>  <b>November - December</b>	<p><b><u>Electricity and Magnetism</u></b>  In this topic students will learn about:</p> <ul style="list-style-type: none"> <li>• Explain how objects become charged and how they interact</li> <li>• Describe and measure current</li> <li>• Describe potential difference and what is meant by rating of a battery</li> <li>• Describe the difference between series and parallel circuits</li> <li>• Calculate the resistance of a component and of a circuit</li> <li>• Describe how to represent magnetic fields and compare this with the Earth's magnetic field</li> </ul>

	<ul style="list-style-type: none"> <li>• Describe how to change the strength of an electromagnet</li> <li>• Describe how a simple motor works and some uses of electromagnets.</li> </ul> <p><b><u>Motion and Pressure</u></b> In this topic students will learn about:</p> <ul style="list-style-type: none"> <li>• Calculate speed and describe relative motion. Interpret distance- time graphs and calculate speed using the graph</li> <li>• Describe how atmospheric pressure changes with height</li> <li>• Explain why some things float and some things sink</li> <li>• Apply ideas of pressure to different situations</li> <li>• Calculate the moment of a force.</li> </ul> <p>Cross Curricular Skills:</p> <p>Literacy</p> <ul style="list-style-type: none"> <li>• Specialist vocabulary of Physics.</li> </ul> <p>Numeracy</p> <ul style="list-style-type: none"> <li>• Interpreting graphs</li> <li>• Using equations to calculate speed and momentum</li> <li>• Making use of data and ratios to make predictions</li> <li>• Analysis of data from external sources.</li> </ul> <p>Thinking Skills</p> <ul style="list-style-type: none"> <li>• Investigation of objects moving in a straight line and at an angle, drawing conclusions from data</li> <li>• Describing a journey from a d-t graph</li> <li>• Comparing big and small pressure with the use of the pressure equation.</li> </ul>
<p><b>Spring Term 1<sup>st</sup> Half</b></p> <p><b>January - February</b></p>	<p><b><u>The Periodic Table</u></b> In this topic students will learn:</p> <ul style="list-style-type: none"> <li>• Explain how elements are classified as metals and non-metals</li> <li>• Use patterns to classify an element as a metal or non-metal</li> <li>• Compare patterns in properties in the groups and periods of Periodic table</li> <li>• Interpret data and use patterns to predict properties of Group 1 elements</li> <li>• Use patterns to predict properties of Group 7 elements</li> <li>• Describe the physical and chemical properties of the Group 0 elements.</li> </ul> <p><b><u>Separating Techniques</u></b> In this topic students will learn:</p> <ul style="list-style-type: none"> <li>• Explain how to identify pure substances</li> <li>• Use particle models to explain dissolving</li> <li>• Explain the meaning of solubility</li> <li>• Explain how and why filtration works</li> <li>• Explain how to use evaporation to separate mixtures</li> <li>• Explain how distillation works</li> <li>• Explain how chromatography separates mixtures and analyse chromatograms.</li> </ul> <p>Cross Curricular Skills:</p> <p>Literacy</p> <ul style="list-style-type: none"> <li>• Specialist vocabulary of Chemistry</li> <li>• Making valid observations</li> <li>• Describing methods to compare properties of Group 1 and 7 elements</li> <li>• Writing equations using the correct superscripts and capital letters.</li> </ul>

	<p>Numeracy</p> <ul style="list-style-type: none"> <li>• Interpreting graphs</li> <li>• Use of negative numbers to compare melting and boiling points.</li> </ul> <p>Thinking Skills</p> <ul style="list-style-type: none"> <li>• Making predictions of unknown elements based on given data (predicting boiling and melting points)</li> <li>• Are group 1 metals like other metals?</li> <li>• Analysis of chromatograms</li> <li>• Comparing the different separating techniques.</li> </ul>
<p><b>Spring Term 2<sup>nd</sup> Half February - March</b></p>	<p><b><u>Metals and Acids</u></b> In this topic students will learn about:</p> <ul style="list-style-type: none"> <li>• Compare the reactions of different metals with dilute acids</li> <li>• Explain how to test for hydrogen</li> <li>• Compare the reactions of different metals and oxygen</li> <li>• Use state symbols in balanced formula equations</li> <li>• Use the reactivity series to predict reactions</li> <li>• Predict pairs of substances that react in displacement reactions</li> <li>• Make decision on extracting metals based on the reactivity series</li> <li>• Describe ceramic properties and explain their suitability for their use</li> <li>• Explain how polymer properties make them suitable for their uses</li> <li>• Explain why composite properties make them suitable for their uses.</li> </ul> <p><b><u>The Earth</u></b> In this topic students will learn about:</p> <ul style="list-style-type: none"> <li>• Describe the composition of the atmosphere</li> <li>• Explain how sedimentary rocks are made</li> <li>• Explain how igneous and metamorphic rocks are formed</li> <li>• Use the rock cycle to explain how the material in rocks is recycled</li> <li>• Explain why the concentration of carbon dioxide in the atmosphere did not change for many years</li> <li>• Explain why global warming happens</li> <li>• Analyse the advantages and disadvantages of recycling.</li> </ul> <p>Cross Curricular Skills:</p> <p>Literacy</p> <ul style="list-style-type: none"> <li>• Specialist vocabulary of Chemistry</li> <li>• Making valid observations</li> <li>• Describing methods to compare properties of Group 1 and 7 elements</li> <li>• Writing equations using the correct superscripts and capital letters</li> <li>• Comparing finite resources.</li> </ul> <p>Numeracy</p> <ul style="list-style-type: none"> <li>• Interpreting graphs</li> <li>• Use of negative numbers to compare melting and boiling points</li> <li>• Analysing climate change graphs.</li> </ul> <p>Thinking Skills</p> <ul style="list-style-type: none"> <li>• Comparing year by year of temperature changes to draw conclusions and describe impact</li> <li>• Extend thinking to the current climate and world related issues.</li> </ul>

<p><b>Summer Term</b> <b>1<sup>st</sup> Half</b></p> <p><b>April- May</b></p>	<p><b><u>Adaptations and Inheritance</u></b></p> <p>In this topic students will be able to:</p> <ul style="list-style-type: none"> <li>• Describe how organisms are adapted to their environment</li> <li>• Describe how competition can lead to adaptation</li> <li>• Describe the difference between environmental and inherited variation</li> <li>• Represent variation within a specie using graphs</li> <li>• Describe how characteristics are inherited and how scientist worked together to develop the DNA model</li> <li>• Describe the process of natural selection and how organisms evolve over time</li> <li>• Describe some factors that may lead to extinction and the purpose of gene banks.</li> </ul> <p>Cross Curricular Skills:</p> <p>Literacy</p> <ul style="list-style-type: none"> <li>• Specialist vocabulary in Biology</li> <li>• Natural selection process – Essay writing.</li> </ul> <p>Numeracy</p> <ul style="list-style-type: none"> <li>• Predator- Prey graph showing the interdependence and students using the numbers to make valid conclusions</li> <li>• Use of histogram to show continuous data of height</li> <li>• Patterns of variation analysis.</li> </ul> <p>Thinking Skills</p> <ul style="list-style-type: none"> <li>• Variation data collection and evaluations</li> <li>• How can we prevent extinction (forward planning and thinking).</li> </ul>
<p><b>Summer Term</b> <b>2<sup>nd</sup> Half</b></p> <p><b>June- July</b></p>	<p><b><u>Health and Lifestyle</u></b></p> <p>In this topic students will be able to:</p> <ul style="list-style-type: none"> <li>• Describe the components of a healthy diet and explain the role of each food group in the body</li> <li>• Describe how to test foods for starch, lipids, sugar and protein</li> <li>• Describe some health issues caused by unhealthy diet and calculate the energy required of different people</li> <li>• Describe the structure and function of the main parts of the digestive system</li> <li>• Describe the role of enzymes in digestion, describe the role of bacteria in digestion</li> <li>• Describe the difference between recreational and medicinal drugs</li> <li>• Describe the effect alcohol has on conception and pregnancy</li> <li>• Describe the effect of tobacco smoke on pregnancy.</li> </ul> <p><b><u>Ecosystem</u></b></p> <p>In this topic students will be able to:</p> <ul style="list-style-type: none"> <li>• Describe the process of photosynthesis and state the word equation for photosynthesis</li> <li>• Describe the structure and function of the main components of a leaf and explain the distribution of chloroplasts</li> <li>• Describe how a plant uses minerals for healthy growth and explain the role of nitrates in plant growth</li> <li>• Describe the process of chemosynthesis and where it takes place.</li> </ul> <p>Cross Curricular Skills:</p> <p>Literacy</p> <ul style="list-style-type: none"> <li>• Specialist vocabulary in Biology</li> </ul> <p>Numeracy</p> <ul style="list-style-type: none"> <li>• Changes in gases on exhalation and inhalation. Graph analysis and evaluations.</li> </ul>

	Thinking Skills <ul style="list-style-type: none"> <li>• Ethical and Moral issues on should a pregnant women drink</li> <li>• Impact of drug addiction on economical and social issues.</li> </ul>	
<b>Assessments</b>	End-of-topic test for each module. Students will track their tests in class to identify which topics are strengths and weaknesses.	
<b>Homework Structure</b>	Homework is set on Satchel One. Students are required to log in and follow the instructions. Homework activities can range from building models, research about a topic, doddle quizzes, and revision activities.	
<b>School-based enrichment opportunities</b>	STEMNET club for targeted students, by invitation only. Science and Technology are linked to provide students with an idea of what Science is like outside of lessons. Science Quiz inter-class activities, Science week activities in class and lunchtime demonstrations, Science Challenge Workshops with other schools.	
<b>Resources available for home-based study</b>	<b>Revision guides and books</b> CGP Key Stage 3 Science Workbook (with answers) <b>ISBN-10:</b> 184146239X <b>ISBN-13:</b> 978-1841462394  CGP Key Stage 3 Science Complete Study & Practice <b>ISBN-10:</b> 184146385X <b>ISBN-13:</b> 978-1841463858	<a href="https://www.cgpbooks.co.uk/Student/books_ks3_science_revision">https://www.cgpbooks.co.uk/Student/books_ks3_science_revision</a>  Activate: Student Book 2 (Year 8 topics) <b>ISBN-10:</b> 0198392575 <b>ISBN-13:</b> 978-0198392576  <b>Useful websites:</b> <a href="http://www.bbc.co.uk/education/subjects/zing4d2p">http://www.bbc.co.uk/education/subjects/zing4d2p</a>