

**YEAR 9 CURRICULUM
2025 - 2026**



THE GRANGE SCHOOL



YEAR 9 CURRICULUM

This guide outlines the curriculum available for our year 9 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. PSHCE
14. Religious Studies
15. Science



1: Art

Key Learning Objectives	<p>Making – to develop and improve skills when making art. To understand and work with the creative process, overcoming struggles and mistakes, working with instincts to explore and adapt art materials and processes.</p> <p>Investigating – to become more familiar with exploring and experimenting with art materials to find the best solutions to art intentions. To use a sketchbook to show planning for art activities, show confident, well-presented evidence of your ideas and become confident at using more complex meanings and messages when developing ideas for art. To be able to research information that is relevant to art themes and select the most appropriate parts of this to improve own artwork.</p> <p>Knowledge – to become more familiar with the meanings and techniques artists use, developing a more confident art language to describe thoughts and opinions of it. To be aware of and understand a wide range of art and cultural development from across time and from other cultures.</p> <p>Experimenting – to understand that the choice of materials or processes affects how outcomes look. To use clear and concise annotation justify creative decisions in ways that do not simply say what is obvious.</p>
Curriculum Content:	
Autumn Term 1st Half	<p>Portraiture Project</p> <p>Making - learners will develop observational drawing techniques to record a range of face features and techniques in showing accurate proportions of the face. Learners will develop their skills and knowledge of how to represent a range of tones and textures visually.</p> <p>Investigating - learners will develop their research skills further to find a range of imagery that will help with developing their own ideas. Learners will further develop their own style in how to present their sketchbook to show their work clearly.</p> <p>Knowledge – learners start to show confident use of prior knowledge of art vocabulary and key words to help them analyse the work of artists using written 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>Experimenting - 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>
Autumn Term 2nd Half	<p>Portraiture Project</p> <p>Making - learners will record from secondary resources to develop studies using a range of dry and wet media including Pen/Ink, watercolour and mixed media to develop skills and techniques.</p> <p>Investigating – learners will 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 portraiture as a theme or is an integral part of their art practice.</p> <p>Knowledge - learners will become more familiar with the meanings and techniques artists use, developing a more confident art language to describe their thoughts and opinions of it.</p> <p>Experimenting - learners will investigate a range of techniques linked to portraiture used by contemporary and non-contemporary artists and illustrators.</p>
Spring Term 1st Half	<p>Portraiture Project</p> <p>Making - learners will make an outcome that will draw upon all observations and research explored so far and learn to make art as longer, planned projects.</p> <p>Investigating - 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. They will learn to use evaluation to adapt and alter their work as the process evolves.</p> <p>Knowledge - 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>Experimenting – 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>
<p>Spring Term 2nd Half</p>	<p><u>Pop Art inspired Project</u></p> <p>Making - learners will record from direct observation, and/or from secondary resources on a range of pop art inspired themes such as food/packaging and or objects. Investigating - learners will investigate the themes and concepts behind Pop Art through their own research and develop their presentation skills within their sketchbooks. Knowledge - learners will Be aware of and understand a wide range of art and cultural development from across time and cultures. Experimenting - become more familiar with exploring and experimenting with a wider range of art materials to find the most effective solutions to their goals.</p>
<p>Summer Term 1st Half</p>	<p><u>Pop Art inspired Project</u></p> <p>Making - learners will record from secondary resources to develop studies from a choice of dry and wet media such as, watercolour/ acrylic paint, printing techniques and mixed media to develop skills and techniques in creating outcomes. Investigating - learners will investigate a range of techniques linked to the formal elements. They will use their research skills to look further into the art movement of Pop Art to better understand the meanings and messages. Knowledge - learners will become more familiar with the meanings and techniques artists use within the art movement of Pop Art Experimenting - learners will experiment with collage techniques and/or drawing and painting techniques to explore composition and shape and form.</p>
<p>Summer Term 2nd Half</p>	<p><u>Pop Art inspired Project</u></p> <p>Making - learners will develop their making skills to produce an outcome that will demonstrate increasing skills and accuracy. They will develop skills in making an outcome in 2D and/or 3D forms. Investigating - 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. They will produce increasingly personal and skillful ideas for art in different ways. Knowledge - show evidence of being able to improve your own personal skills by identifying and studying the way artists made their art to improve their own techniques. They will identify and apply selected aspects of the artist’s work studied within the project in their outcomes. Experimenting - learners will make confident choices through evaluating their experiments with media to select processes and techniques that suit their learning style. They will understand that the choice of materials or processes affects how the outcomes look.</p>
<p>Assessments</p>	<p>Student’s 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>
<p>Homework Structure</p>	<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>
<p>School-based enrichment opportunities</p>	<p>Key Stage 3 Art clubs will run throughout the year afterschool. These will focus on a variety of skills, processes and techniques aimed to help students further develop their creative skills outside of lessons.</p>

2: Design and Technology

Key Learning Objectives	<p>In Year 9, students decide which two specialist areas they wish to develop and strengthen their skills and understanding in.</p> <p>Projects are focused towards building the skill set in preparation for students to continue into either the Design and Technology or Food Preparation and Nutrition GCSE. Student's skills and attributes such as communication, creativity, problem-solving, and independence are also further developed.</p>
Curriculum Content:	
Design and Technology: Product Design	<p>Project Title: Pin ball game</p> <p>During Year 9, Product Design students will take on the pin ball game project where they will further gain an understanding into materials, tools and processes in the workshop. Furthermore, they will also cover theory relevant to the practical outcome where they learn about sustainability and quality control.</p>
Design and Technology: Compliant Materials	<p>Project Title: High Profile event</p> <p>In this unit, students will explore compliant materials through the medium of Graphic Design. They will investigate how companies promote their brand and use a combination of hand drawn and CAD techniques to develop their promotional material for a high-profile event of their choice. Outcomes could include prototypes of the event venue, clothing and merchandise.</p>
Food Preparation and Nutrition	<p>In Food Preparation and Nutrition, students will build on their knowledge of the subject to create even more complex dishes that use a combination of skills.</p> <p>A variety of topics and skills are covered including:</p> <ul style="list-style-type: none"> • Batch production and quality control • Exploring pastry • Cultural Cuisine • Design and make a healthy snack • Exploration of raising agents • Hazards, hygiene and handling of high-risk foods. <p>Students will also carry out a science investigation into the conditions needed for yeast to ferment.</p>
Assessments	<p>Students' work is assessed throughout the D&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"> • Investigation and Research • Design and Development • Manufacture • Evaluation and Analysis. <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> <p>As well as marking and feedback in books, students will also have a formative assessment halfway through the module to monitor their progress. At the end of the project, they will be given a final grade based on their success in the 4 Design and Technology areas.</p>

Homework Structure	Homework will be set regularly throughout the rotation of each project and will be set by the classroom teacher. Marked and feedback given back. The work set will be designed to build on skills and knowledge learnt in lessons and will be a mix of tasks such as online quiz, project, investigations, designing, long answer exam type questions.
School-based enrichment opportunities	Trips and visits to be arranged.
Resources available for home-based study	www.technologystudent.com Exploring Design and Technology for Key Stage 3: Boost eBook (hoddereducation.co.uk)

3: Drama

Key Learning Objectives	<ul style="list-style-type: none"> • Reinforce and develop ground rules, expectations including the use of the Drama Spaces. • Develop the communication skills necessary for good drama to take place. • Understand the demands of the GCSE course by completing a mini GCSE style tasks over the course of the year. • Provide opportunities for discussion work and both teacher and student self-assessment of individual and group strengths and weaknesses. • Develop students' confidence and skill in using performance and communication skills to a good level. • Develop students' confidence and ability to structure drama-making, performing and evaluating. • Develop students' use of evaluation and target setting.
Curriculum Content:	
Autumn Term 1st Half	Mock Component 1: Devising (Drugs Don't Work): Exploring the topic of homelessness and/or drug addiction using drama skills and building up to creating a devised piece of performance as part of a group, using different Drama techniques and styles.
Autumn Term 2nd Half	Mock Component 1: Devising (Drugs Don't Work): Continued exploration of the topic using drama skills leading to students performing devised pieces to an audience. Students will reflect on the process, analysing and evaluating their impact.
Spring Term 1st Half	Mock Component 2: Performance from Text Applying prior knowledge to staging a section of a script to an audience, taking on board character, research and design elements. Students explore the script and its themes, culminating in a performance of a key extract.
Spring Term 2nd Half	Mock Component 2: Performance from Text Students will study the play text further through the eyes of a director, actor and designer. Students will develop their own ideas for the script and answer questions outlining their creative decisions using key drama terminology.
Summer Term 1st Half	Live Theatre: Students will watch a recorded piece of live theatre, analysing and evaluating the Drama elements throughout. Students will reflect on the meaning created and the impact this has on the audience.
Summer Term 2nd Half	Dragons Den: Students will explore the transferable skills that Drama can offer them as they move on to GCSEs and the wider world. They will prepare short interview scenes and work on pitches to develop their ability to communicate and present themselves professionally.
Assessments	Students will be assessed formally once every term in lessons. Students will be assessed on the skills that they have been developing throughout each topic, using the previous topic feedback to show progress over time. Every student will have a folder containing an assessment booklet for each term, these will follow the Edexcel GCSE marking criteria and include opportunities for formative assessment, homework tasks and a space for student reflection.
Homework Structure	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.
School-based enrichment opportunities	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.
Resources available for home-based study	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. Research into practitioners and various performance styles/techniques to enhance the work done in lessons.

4: English

Key Learning Objectives	<ul style="list-style-type: none"> • To experience a range of fiction, non-fiction, and media texts. • To experience writing for a range of audiences and purposes. • To recap key literacy skills. • To develop analytical and essay writing skills. • To learn about historical and social contexts in texts. • To prepare students for GCSE learning and assessment.
Curriculum Content:	
Autumn Term 1st Half	Relationships - Viewpoints writing Students will further embed the non-fiction writing skills learnt over two years. They will deepen their knowledge and understanding of this key GCSE skill. Embedding: Structuring and organising texts according to purpose, audience and format. (Looking at a wider range of transactional forms.) Confident use of AFOREST techniques. Writing with technical accuracy.
Autumn Term 2nd Half	Human existence Social inequality The Pearl – novel reading Students will further embed the prose analysis skills learnt over two years. They will deepen their knowledge and understanding of this key GCSE skill. Embedding: 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. Cultural capital: Exposure to this seminal text from another culture.
Spring Term 1st Half	Gothic reading - Exploration in creative reading Students will further embed the fiction understanding, analysis and evaluation skills learnt over the key stage. They will deepen their knowledge and understanding of these key GCSE skills. Analysis of language, form and structure in non-fiction texts, developing the work already done on the use of PETAL.
Spring Term 2nd Half	Gothic writing - Exploration in creative writing Students will further embed the narrative and descriptive writing skills learnt over two years. They will deepen their knowledge and understanding of this key GCSE skill. They will learn how to structure narrative and descriptive texts according to purpose, audience and format.
Summer Term 1st Half	Human nature - Shakespeare Tempest Studying a Shakespeare play key scene analysis; developing skills in inference and deduction, language analysis; and understanding the writer’s purpose and the significance of the context.
Summer Term 2nd Half	Presentation of characters Further building on analytical skills and writers’ craft. Analysis of characters, plot and themes in short extracts. Looking at the language and tone in fictional texts. Authorial intent. Analysis of language and structure and tone, using PETAL.
Assessments	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.

Homework Structure	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).
School-based enrichment opportunities	Book club, writing group, activities for World Book Day.
Resources available for home-based study	Resources on VLE.

5: Enterprise

Key Learning Objectives	<ul style="list-style-type: none"> • Understand and develop a wide range of enterprise and learning skills (GELS). • Understand and experience a range of study skills • Continue to build an understanding of career paths • Make the most informed choice when choosing KS4 subjects • Be aware of both local and national job prospects and skill shortages • Build knowledge and understanding of Apprenticeships and what they can offer • Be aware of some of the Volunteering activities that exist and their benefits
Curriculum Content:	
Autumn Term 1st Half	<ul style="list-style-type: none"> • Introduction to the 2nd year of the course and careers reflection • Study skills – practice a variety of techniques • Characteristics of successful students – ex student case studies and pathways
Autumn Term 2nd Half	<ul style="list-style-type: none"> • Turning Hobbies into Careers – consider their own hobbies and interests • Labour Market Information – review and reflect • Morrisby careers matching – link to the options process • Apprenticeships – recap and possibilities
Spring Term 1st Half	<ul style="list-style-type: none"> • Careers Fair - preparation and reflection • Money skills – personal finance at various stages of their life • Equality in the workplace – the role of women and discrimination legislation • Volunteering – explore the possibilities that exist for them
Spring Term 2nd Half	<ul style="list-style-type: none"> • Target Setting – SMART targets and their benefits • Metacognition – continuing to look at how to boost learning power
Summer Term 1st Half	<ul style="list-style-type: none"> • Jobs that Save the Planet – the future and green jobs • How to write a CV – considering their own strengths and weaknesses • Morrisby Careers – continue to reflect and build their profile
Summer Term 2nd Half	<ul style="list-style-type: none"> • Careers research project • Make Your Mark with a Tenner – students work in groups and implement their real business ideas
Assessments	There are no formal assessments in Enterprise, however students will complete termly reflections, these will be added to student's careers journey folders.
Homework Structure	There will be no formal homework set but optional research-based tasks may be given in order to enhance understanding.

6: Geography

Key Learning Objectives	<ul style="list-style-type: none"> To foster an awareness of the changing world and our responsibility in safeguarding the environment for the future. Our aim is to encourage students to investigate and interpret the world around them. We intend to provide them with the skills necessary to do so.
Curriculum Content:	
Autumn Term 1st Half	Our Restless Planet How dangerous is my world? Natural disasters, volcanoes and earthquakes, causes and consequences.
Autumn Term 2nd Half	Coping with Earthquakes and Eruptions Case Study: Haiti Earthquake.
Spring Term 1st Half	Globalisation How am I linked to the rest of the world?
Spring Term 2nd Half	Extreme weather Is the weather of the UK becoming more extreme? How has climate change affected the change in weather and climate?
Summer Term 1st Half	Global Development: China vs USA Why are most products made in China Has China overthrown the USA as the world superpower?
Summer Term 2nd Half	Resource Management Why is resource security globally important and how secure are we?
Assessments	Tectonics Test. BRIC Test. China Assessment
Homework Structure	Set fortnightly. Topics will be available on the school website in the near future.
School-based enrichment opportunities	Eco-club. Located study. Possible trip to Sorrento (Italy) Links to RS/History/Geography – Plate Tectonics.
Resources available for home-based study	Reading widely improves the level and depth of understanding. Conducting independent research. Encouraging an interest in environment.

7: History

Key Learning Objectives	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.
Curriculum Content:	
Autumn Term 1st Half	Herstory: Why are women underrepresented in History? <ul style="list-style-type: none"> • Case studies on important historical women • Explore the changing roles of women throughout history • Understanding historical scholarship and why it lacks female representation
Autumn Term 2nd Half	What was life-like for soldiers on the front-line? <ul style="list-style-type: none"> • Causes of WW1 • Trench Warfare – structure, No Mans Land, weapons • Recruitment • Main battles and theatres of war (Case Study- Sir Douglas Haig)
Spring Term 1st Half	Why did the Second World War affect so many people? <ul style="list-style-type: none"> • Causes of Second War World – rise of the Nazis, Appeasement, League of Nations • Main events of the Second World War • Home Front • Local case study: Bletchley Park
Spring Term 2nd Half	The Holocaust: A warning from history? <ul style="list-style-type: none"> • What is Anti-Semitism? • Nuremberg Laws • The Ghettos • The Final Solution • Being Human- perpetrators, collaborators, bystanders
Summer Term 1st Half	From slavery to emancipation? <ul style="list-style-type: none"> • Africa before the Slave Trade • Triangular Trade and the Middle Passage • Slave Auctions • Life on a plantation • Causes of Abolition
Summer Term 2nd Half	What impact did the Civil Rights Movement have on us? <ul style="list-style-type: none"> • Segregation and impact of the KKK • Key events that helped change the conditions for African Americans • America Civil Rights Movement • Key individual case studies: Emmett Till, Rosa Parks, Malcolm X and Martin Luther King • Civil Rights in the present day: Black Lives Matter
Assessments	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
Homework Structure	Set two times a half term (around every three weeks)
School-based enrichment opportunities	Previous years have visited the Imperial War Museum. Previous cross-curriculum projects: Holocaust project between Art and History Department, WW1 Poetry Competition between English and History
Resources available for home-based study	Reading widely improves the level and depth of understanding. Conducting independent research. Encouraging an interest in historical events.

8: IT and Computer Science

Key Learning Objectives	<ul style="list-style-type: none"> • To solve problems independently, using appropriate IT solutions. • To select software appropriately. • To write requirements and specifications and use them when designing and developing systems. • To look at the use of models and how these can be adapted to provide a range of information for the user. • To reflect on the work produced and to develop it further.
Curriculum Content:	
Autumn Term 1st Half	<p>Binary – In this unit, students will look at representing numbers in Binary form and the converting between Binary and Denary and back again.</p> <p>Spreadsheets - 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.</p>
Autumn Term 2nd Half	<p>Spreadsheets - 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.</p>
Spring Term 1st Half	<p>Algorithms In this unit of work, students will look at representing Algorithms with Flowcharts and Abstraction.</p> <p>Introduction to courses on offer in Key Stage 4</p>
Spring Term 2nd Half	<p>Python In this unit of work, students will work on the Python code they have learned in Year 8 and will develop more complex programs.</p>
Summer Term 1st Half	<p>Students will be split into classes based on which Key Stage 4 course they are following. They will then follow a computing-based topic or an IT based topic.</p>
Summer Term 2nd Half	<p>Students will be split into classes based on which Key Stage 4 course they are following. They will then follow a computing-based topic or an IT based topic.</p>
Assessments	<p>Each of the practical units of work will have some assessment. Some units will include small individual assessments, while others will involve working towards creating one final piece of assessed work. The theory units will be assessed by a test at the end of the unit.</p>
Homework Structure	<p>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 Satchel One.</p>
School-based enrichment opportunities	<p>Students have access to computers and printers in the lunchtime Homework Club and also in the afterschool Homework Club. These operate every day.</p>
Resources available for home-based study	<p>Resources from the lesson can be found on the Grange VLE: https://virtual.grange.bucks.sch.uk</p>

9: Mathematics

Key Learning Objectives	<p>For the final year of KS3, all students are grouped into five classes depending upon their prior attainment in mathematics.</p> <p>All classes focus on:</p> <ul style="list-style-type: none"> improving and extending the students mathematical understanding across five attainment strands - Number; Algebra; Geometry and Measures; Ratio, Proportion and Rates of change; Statistics and Probability. improving skills which are needed within using & applying mathematics, functional mathematics and problem solving. <p>More details can be obtained from the class teachers.</p>
Curriculum Content – YEAR 9	
Autumn Term (September – December)	Number sense Angles in parallel lines and polygons Area of trapezia and circles Line symmetry & reflection Data handling
Spring Term (January - April)	Measures of location Straight line graphs Forming & solving equations Three-dimensional shapes Constructions & congruency Using percentages
Summer Term (May - July)	Rotation & translation Pythagoras' theorem Enlargement & similarity Ratio & proportion Rates Probability Algebraic representations
Assessments	<ul style="list-style-type: none"> 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. Small assessments will be carried out at the end of most units of work All assessments are teacher marked.
Homework / independent study	<p>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.</p>
School-based enrichment opportunities	<ul style="list-style-type: none"> Opportunity to participate in the UK Maths challenge.
Resources available for home-based study	<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

Key Learning Objectives	<ul style="list-style-type: none"> • To increase awareness of the cultural diversity in Music. • To develop the skills to compose and perform music with others. • To explore the role of music in a commercial context such as radio.
Curriculum Content:	
Autumn Term 1st Half	Video Game Music: Analysing the different styles of music used in different genres of video game. Performing well known melodies from video games on the keyboard. Creating music for a video game of their own design.
Autumn Term 2nd Half	MOBO: Exploring the contribution of black musicians to music history focusing on particular musicians from 18 th Century to now. Performing reggae music using ukulele.
Spring Term 1st Half	Blues: Understanding the significance of the 12-bar blues sequence. Learning to perform Blues. Creating songs based on 12-bar blues.
Spring Term 2nd Half	Songwriting: Composing, recording and producing a song from scratch.
Summer Term 1st Half	Nature Documentaries: Understanding the role of music in television. Composing music to fit with a given nature video. Evaluating the success of that work.
Summer Term 2nd Half	Make a Band 3: Continuing with skills learned in Year 7 and Year 8 to create a performance of a well-known song.
Assessments	Each half-term unit will be assessed in the classroom during lessons. Some projects will be assessed at different stages through regular performances.
Homework Structure	Eight tasks are included in a homework booklet given to all pupils at the beginning of the year. The booklet also includes some optional extension tasks.
School-based enrichment opportunities	Choir, Senior Choir, Orchestra, termly concerts, solo practice sessions. Instrumental and vocal lessons are also available through the Aylesbury Music Service.
Resources available for home-based study	Wider listening through the use of websites such as YouTube or music streaming sites as appropriate.

11a: French

Key Learning Objectives	<ul style="list-style-type: none"> • To detail your holidays using past tenses of regular and irregular verbs (avoir and être). • To talk about festivals and celebrations. • To use transactional language when purchasing items. • To reference digital technology and include your opinions. • To describe your region. • To detail your daily routine. • To talk about sport and leisure activities using comparatives. • To give information about illness and use transactional language when booking appointments.
Curriculum Content:	
Autumn Term 1st Half Dynamo 2 Module 2 cont	<ul style="list-style-type: none"> • To talk about festivals and celebrations using likes and dislikes • To describe festivals and special days using -re and -ir verbs • To buy food at a market using transactional language • To answer questions in target language • To use the future tense in questions • To write about New Year combining future and present tenses.
Autumn Term 2nd Half Dynamo 2 Module 3	<ul style="list-style-type: none"> • To learn about Television and media and use adjectival agreements • To describe digital technology • To issue cinema invitations and use transactional language to buy tickets • To reference leisure events using negatives • To deal with past tenses and synonyms in a reading text • To use three tenses when speaking
Spring Term 1st Half Dynamo 2 Module 4	<ul style="list-style-type: none"> • To learn about Television and media and use adjectival agreements • To describe digital technology • To issue cinema invitations and use transactional language to buy tickets • To reference leisure events using negatives • To deal with past tenses and synonyms in a reading text • To use three tenses when speaking.
Spring Term 2nd Half Dynamo 2 Module 4	<ul style="list-style-type: none"> • To learn about Francophone countries • To describe where you live using modal verbs. • To decode when doing reading tasks. • To recognise different verb forms. • To revise reflexive verbs in conjunction with times to detail daily routine. • To talk about moving house using irregular adjectives • To write with three tenses.
Summer Term 1st Half Dynamo 2 Module 5	<ul style="list-style-type: none"> • To give opinions about sport using comparative • To use the imperative giving directions • To learn to use il faut when translating • To detail illnesses and say what is wrong with you • To take part in a transactional conversation with a doctor • To ask and answer questions in three tenses.
Summer Term 2nd Half Dynamo 3 Module 1	<ul style="list-style-type: none"> • To revise likes and dislikes • To talk about after school clubs in the present tense • To describe your friends using reflexive verbs • To give an account of birthday celebrations in the past tense • To discuss what you are going to wear using the future tense.
Assessments	There will be a 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.
Homework Structure	Homework will be set via Bromcom on a weekly basis and tasks should be completed at the back of exercise books.

11b: Spanish

Key Learning Objectives	<ul style="list-style-type: none"> • To talk about past holidays using past tenses. • To detail digital technology and media preferences. • To say what you like/dislike to eat and to order food. • To use modal and reflexive verbs. • To use comparatives and superlatives. • To write, speak, listen and read in three tenses. • To revise regular and irregular present tense verbs, preterite and future tenses.
Curriculum Content:	
Autumn Term 1st Half Viva 2 Module 2	<ul style="list-style-type: none"> • To say what you use your phone for • To revise the present tense • To say what music you like / dislike and give a range of opinions • To use the comparative when talking about TV • To use the preterite and present to say what you did yesterday • To use authentic text when reading.
Autumn Term 2nd Half Viva 2 Module 2 cont & 3	<ul style="list-style-type: none"> • To say what food you like/dislike and use a wider range of opinions • To discuss mealtimes and use negatives • To use transactional language and modal verbs to order food • To learn about usted/ ustedes forms of You.
Spring Term 1st Half Viva 2 Module 3 cont & 4	<ul style="list-style-type: none"> • To discuss what to buy for a party using near future • To give an account of a party using three tenses • To arrange to go out using a conditional tense + infinitive • To use prepositions to provide more detail • To make excuses using modal verbs • To learn reflexive verbs in a daily routine context
Spring Term 2nd Half Viva 2 Module 4 cont & 5	<ul style="list-style-type: none"> • To use demonstrative adjectives this/these in conjunction with describing clothes • To describe a holiday home and use the comparative • To describe holiday activities using the superlative • To learn to use the imperative when giving directions • To describe summer camps using three tenses • To describe a work trip and listen for gist, tenses and points of view.
Summer Term 1st Half Viva 2 module 5 cont & Viva 3 Module 1	<ul style="list-style-type: none"> • To discuss likes and dislikes using irregular verbs • To revise present tense regular verbs • To practise the near future with films • To use the preterite to describe a past birthday • To use three tenses together.
Summer Term 2nd Half Viva 3 Module 1	<ul style="list-style-type: none"> • To practise preparation and anticipation in Listening questions of three tenses • To say what you have to do using Tener que • To use the conditional to say what you would like to do • To express your future plans using the compound future.
Assessments	There will be a 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.
Homework Structure	Homework will be set via Bromcom on a weekly basis and should be completed at the back of exercise books.

11c: Urdu

Key Learning Objectives	<ul style="list-style-type: none">• To be able to describe personal identification.• To be able to describe hobbies and interests.• To be able to talk about your home and area.• To be able to talk about food.
Curriculum Content:	
Autumn Term 1st Half	<ul style="list-style-type: none">• Personal Identification• My family• Counting (50-100).
Autumn Term 2nd Half	<ul style="list-style-type: none">• Hobbies and interests• Likes and dislikes• Describing an area you live in.
Spring Term 1st Half	<ul style="list-style-type: none">• Describing your daily routine• Describing your school• School subjects.
Spring Term 2nd Half	<ul style="list-style-type: none">• My future plans• Transport• Directions.
Summer Term 1st Half	<ul style="list-style-type: none">• Reading different types of texts• Describing different types of weather• Holidays.
Summer Term 2nd Half	<ul style="list-style-type: none">• To talk about jobs.• To describe past events• To discuss illness
Assessments	Vocabulary tests will be set as homework and end-of-unit tests will be also be conducted in all skills areas.
Homework Structure	Homework will be set on a weekly basis and will be on Bromcom. Evidence for learning should be shown in your homework books with tasks clearly labelled
Resources available for home-based study	Students may wish to purchase their own copies of the textbook – “Key to GCSE” by S.S. Kazmi. Websites: www.bbc.co.uk/urdu www.jung.com.pk www.urdufun.com

12: Physical Education

Key Learning Objectives	<p>Students are given the opportunities to produce complete units of work to help them achieve the overall concept of becoming Independent Athletes. This is achieved by students learning to apply more complex skills to a conditioned game context and are given opportunities to manage their own actions. Students will also explore the transfer of skills within activities and the benefits of fitness testing and links to training. They will spend lessons developing what they:</p> <ul style="list-style-type: none"> • Know - procedural knowledge in how to perform skills and rules of activities and decision making in a variety of activities. • Show – precision in their movement skills in isolation and in conditioned games. It will also cover evaluating and improving. • Grow - linked with the school's core value and ethos such as independence and self-management and making informed choices about healthy, active lifestyles.
Curriculum Content:	
Autumn Term 1st half	Fitness and Football for single gender groups Handball and Basketball for mixed gender groups.
Autumn Term 2nd half	Basketball and Netball for single gender groups Football and Orienteering for mixed gender groups
Spring Term 1st half	Badminton and Orienteering for single gender groups. Gymnastics and Tag Rugby for mixed gender groups
Spring Term 2nd half	Handball and Gymnastics for single gender groups. Fitness and Netball for mixed gender groups
Summer Term 1st half	Athletics.
Summer Term 2nd half	Cricket. Rounders. Tennis
Assessments	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.
Homework Structure	Students are not currently set homework but may have work set when options for exam groups are made.
School-based enrichment opportunities	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.
Resources available for home-based study	Community based clubs/activities.

13: PSHCE

Key Learning Objectives	<ul style="list-style-type: none"> To be aware of issues that affect our personal health. To gain an understanding of our sexual health and be able to seek appropriate advice and services.
Autumn Term 1st Half	Social Media Investigated. <ul style="list-style-type: none"> Topics to include: <ul style="list-style-type: none"> Introduction to Media Literacy and the Language of Persuasion. Media and Gender Constructions. <ul style="list-style-type: none"> Media and Body Image. Media, Health, and Food Marketing. Media, Health, and the Marketing of Gambling Addiction. Media and Decision Making. <ul style="list-style-type: none"> Creating Counter Adverts. Presenting Counter Adverts.
Autumn Term 2nd Half	Human Rights <ul style="list-style-type: none"> What are human rights – should we have rights? Historical examples: the holocaust, Rwanda and the crisis in Syria. The United Declarations of Human Rights. What is capital punishment, and should it be introduced in the UK? Research Project.
Spring Term 1st Half	Drugs: <ul style="list-style-type: none"> Students explore the effects of illegal drugs in detail focusing on Cannabis, Cocaine, Heroin and Mephedrone (which is a particular problem). Students to know and understand the law surrounding drugs. Students to explain why people choose to take drugs and how they may affect their success at school and work. Students to write their own short story on drugs (taking approximately 3 – 4 lessons).
Spring Term 2nd Half	My Options My Future: To support students before they start their options. <ul style="list-style-type: none"> Careers – what do you need and how to you get there (fast tomato). Careers presentation (students to choose job, research it and present back to the class). Basic C.V. writing skills. To support the school options process by understanding how to make independent choices. <p>How to make the best start to your options:</p> <ul style="list-style-type: none"> Effective notetaking. Dealing with exams.
Summer Term 1st Half	Relationships and Sex Education the careers advisor to support the options process. <p>Topics in this half-term include:</p> <ul style="list-style-type: none"> Sex Education Ground Rules. What is a healthy relationship? Grooming/Internet Safety. What is consent (double lesson)? <p>Students to watch the BBC documentary RAPE on TRIAL, as well as producing a resource outlining consent.</p>

Summer Term 2nd Half	<p>Students to continue the focus from the last term. Topics to include:</p> <ul style="list-style-type: none"> • Contraception (what it is, the advantages and disadvantages of different types of contraception). • STI's and a mixing fluid activity to highlight how quickly and easily they can spread. • Body Image. • Pregnancy. <p>Porn: Fantasy vs. Reality.</p>
Assessments	<p>Students will be assessed on their effort in extended pieces of writing and tasks (for example, their Drugs Story and their extended piece of writing on the age of consent).</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>
Homework Structure	<p>Not set, in line with department policy.</p>
School-based enrichment opportunities	<p>Youth Magistrates Competition.</p>
Resources available for home-based study	<p>N/A.</p>

14: Religious Studies

Key Learning Objectives	<ul style="list-style-type: none"> • To explore thematic topics in line with everyday life situations. • To consider what our moral duty is and whether we have a responsibility towards others.
Curriculum Content: Students will focus on two main big questions each term.	
Autumn Term 1st Half	<p>Should Humans have rights?</p> <ul style="list-style-type: none"> • Human rights, social justice, prejudice and discrimination. • Religious freedom, Race and disability • The status and role of women within religion. • Religious teachings on wealth. • Exploitation of the poor and the role of charities. <p>How important are relationships?</p> <ul style="list-style-type: none"> • Human sexuality, Sex before marriage, Contraception & family planning. • Marriage, Divorce and remarriage, nature of families. • Purpose of families. • Attitudes to gender equality.
Autumn Term 2nd Half	
Spring Term 1st Half	<p>Why is Buddhism becoming popular in the west?</p> <ul style="list-style-type: none"> • The four noble truths – suffering • Places of worship • Types of meditation • Festivals – Wesak, Parinirvana day • Karma and rebirth • 5 moral precepts • Metta and Karuna • 6 perfections
Spring Term 2nd Half	
Summer Term 1st Half Summer Term 2nd Half	<p>Can humans always be moral?</p> <ul style="list-style-type: none"> • Moral argument • Utilitarianism • Moral actions • Poverty • Wealth • Animal rights <p>Humanism:</p> <ul style="list-style-type: none"> • Exploring the nature of a non-religious worldview • The main beliefs of humanism • The place of humanism in society
Assessments	<p>A Key term assessment is conducted every half term.</p> <p>An extended writing task will be set every other term to assess students' knowledge and test understanding and application.</p>
Homework Structure	Reading, revision and research creation of a knowledge organiser to recap learning.
School-based enrichment opportunities	Assemblies, Focus on mindfulness in spring term within the study of Buddhist practices.
Resources available for home-based study	<p>Films: "Schindler's List"; "Life is Beautiful"; "Boy in the Striped Pyjamas"; "The Pianist", "I have never forgotten you". God's Not Dead</p> <p>Books: Who ordered the universe by Nick Hawkes; God in the Lab by Ruth M Bancewicz</p>

15: Activate 3 Science Course

Key Learning Objectives	<ul style="list-style-type: none">• Use scientific theories and explanations to develop hypotheses.• Plan experiments or devise procedures to make observations, produce or characterise a substance, test hypotheses, check data or explore phenomena.• Apply knowledge of a range of techniques, instruments, apparatus, and materials to select those appropriate to the experiment.
Curriculum Content: Activate 3 Curriculum	
Autumn Term 1st Half Term 1 September- October	<p><u>Introduction to Investigation Skills</u> Students will be able to:</p> <ul style="list-style-type: none">• Plan and carry out safe investigations• Plot graphs accurately and describe patterns and trends• Calculate mean values identifying anomalous results• Draw valid conclusions and evaluating the investigation. <p><u>B3 Biology Chapter 1: Cells</u></p> <ul style="list-style-type: none">• Students should now be familiar with the concept of all living organisms being composed of cells, that cells have similarities, and should also be aware that not all cells are the same. They will have used microscopes to view cells from animals and plants. In this chapter, students will learn how the development of microscopes has helped us to understand cells and how specialised plant cells – phloem and xylem – are adapted to transport materials around a plant.• They will use their knowledge of the respiratory and circulatory systems, alongside their knowledge of respiration, to investigate how the body responds to the increased demands for energy during exercise.• Cells can only survive if they have the capability of gaining substances from their environment and removing substances from within. Students have already learned about the process of diffusion. In this chapter, they will move on to investigate the factors that affect the rate of diffusion as well as discover the process of active transport.• Finally, they will develop their knowledge of unicellular life in finding out about prokaryotic cells. <p><u>B3 Biology Chapter 2: Cell Systems</u></p> <ul style="list-style-type: none">• In this chapter, students will revisit the hierarchical nature of the levels of organisation within an organism using the circulatory system and nervous system as examples.• Students will discover how new technology and ideas lead to changes in our understanding of how organisms work. Students have already been introduced to enzymes and will now look at how they can be used commercially in washing detergents.• The concept of exchange is found throughout biology and this chapter will allow students to revisit it and discover the main features of exchange surfaces and their function in multicellular organisms, focusing on the alveoli in the lungs, villi in the intestines, and the structure of a leaf.• Finally, they will study transport systems in both animals and plants by looking at the circulatory system and the transpiration stream. <p>Literacy</p> <p>Enzyme names: When introducing enzyme names, explain that the suffix -ase is used in biology to form the names of enzymes. The most common way to name enzymes is to add this suffix onto the end of the substrate – for example, an enzyme that breaks down carbohydrates is called carbohydrase. You could ask students to predict the names of other enzymes – for example, peroxides are broken down by peroxidase.</p>

	<p>Numeracy</p> <p>Surface area to volume ratio: Students will have been taught how to calculate the volume and surface area of common 3D shapes in maths, but you may need to recap these skills. To find volume, remind students to find the area of one face and then multiply this by the depth of the shape. (Note: some students may refer to this as height; in this case, volume = length × width × height.) Some students may find it easier to draw out the net of the shape when working out surface area. In this concept, limit the shapes to cubes and cuboids.</p> <p>Working scientifically</p> <p>Model gut: When revising the digestive system, ask students to imagine their body as having a hosepipe running from their mouth to their anus. This tube carries food and fluids into (and out of) the body. The analogy is limited, however, as unlike a hose the gut is permeable in parts so that nutrients and waste products can pass into the body from the tube, or from the body back into the tube. In this model, the villi would be tiny projections that stick into the tube to increase the surface area for absorption.</p>
<p>Autumn Term 2nd Half Term 2 November- December</p>	<p><u>B3 Biology Chapter 3: Fertilisation and Implantation</u> Topics Covered</p> <ul style="list-style-type: none"> • The production of new life is astonishing when you think about it. What are the chances that you happen to be alive? Why do we get new plants in the garden and fields every year? How babies are made is one of those questions that fascinate young people, and while many revel in the scientific details, some find it embarrassing and difficult to talk about. Teachers need to be sensitive to this. This unit revisits how new life is produced through sexual reproduction as well as introducing students to asexual reproduction by looking at cloning. • Sexual reproduction in humans has the biological purpose of producing offspring but that is not always the desired outcome and, in this chapter, students will revisit the conditions needed for a pregnancy to occur and different methods which can prevent it. • The fact that plants can reproduce sexually is one that students can find tricky to understand as they equate the process of sexual intercourse with being sexual reproduction. This unit allows them to recap the fact it is the fertilisation of gametes that is key and in plants the product is a seed which then goes on to develop into a new organism. <p><u>B3 Biology Chapter 4: Variation and natural selection</u> Topics Covered</p> <ul style="list-style-type: none"> • Seed dispersal is used as the context for students to develop their skills in working scientifically with a particular focus on collecting valid data. The amazing variety of life is one of the world’s natural wonders and should stimulate students to want to know more about the world they live in. Where did all the variety come from? Why is life so diverse? Why are some species similar and others so very different? • This chapter will allow students to further explore the variation seen within species looking again at both genetic and environmental factors. Students should now be familiar with species having adaptations and, in this chapter, they can delve deeper by categorising them into being structural, functional, or behavioural. Adaptations increase the chances of survival and reproduction by increasing the ability to compete successfully in a habitat. • The location a species is found in is where it must be competing successfully. Students will investigate the distribution of plants across an area and will examine biotic and abiotic factors in an environment. The chapter revisits natural selection and evolution using the context of antibiotic resistance which can then be linked to the need for maintaining biodiversity and the methods being used to conserve species before they become extinct. <p>Literacy Prefixes: When helping students to learn the difference between abiotic and biotic, explain that the prefix a- means ‘without’ or ‘not’. Therefore, abiotic means without life – hence, biotic</p>

factors are non-living factors. Other examples include amorphous (without form) or atypical (not typical). Can students think of any others? Encourage students to read about different conservation methods. They could research UK species which are in decline as well as the more high-profile worldwide species. There are many scientific terms which students should be encouraged to practice spelling correctly.

Numeracy

Percentage change can be calculated from the data in lesson 4.2. Students may need reminding of how to calculate this using $\frac{\text{change in value}}{\text{original value}} \times 100$.

There are several opportunities for the development of graph drawing skills such as lessons 4.4 and 4.6. During Lesson 4.4 students are investigating the distribution of plants in a habitat. This provides opportunity for discussion of estimating values.

Lesson 4.5 is extended to calculate the population of bacteria after a given time which would allow discussion of exponential growth.

Working Scientifically

Photosynthesis in different areas

C3 Chapter 1: Particle Model and State change

Students will be able to:

- Describe how nanoparticles are used in medical treatments
- Describe an example of how scientists are investigating nanoparticles safely
- Explain how combustion reactions in car engines produce exhaust gases
- Describe some advantages and disadvantages of cars and new vehicle fuels
- Explain using the word equations how catalytic converters clean up exhaust gases
- Explain why hybrid electric cars use less fuel than cars fuelled by petrol alone
- Compare the advantages and disadvantages of different types of cars

Cross Curricular Skills:

Literacy

- Specialist vocabulary, anatomical terms for human body and essay writing
- Explain how scientists can use fingerprints to prove that a suspect was present at the scene of a crime
- Using superscripts to write equations and describe the number of molecules.

Numeracy

- Units of measurements and the idea of relative size when learning about nanoparticles
- The use of standard form
- The use of data tables to compare thermal conductivity
- Different factors of sunscreen and what they mean in terms of exposure to UV rays.

Thinking Skills

- Interpreting and comparing information regarding fingerprinting to solve crimes
- Will fossil fuels last forever and how can we plan for future needs. Linked to finite resources.

Spring Term
1st Half
Term 3

January-
February

C3 Chapter 2: Atoms and the Periodic Table

Students will be able to:

- Describe evidence for Dalton's atomic model.
- Explain one way of developing a scientific explanation.
- Explain how scientist discovered electrons and the nucleus.
- Describe how Mendeleev devised the Periodic Table.
- Describe how Tackle and Noddack discovered rhenium.
- Describe how fossils are formed. Explain what fossils tell us about the ages of rocks.
- Explain how a recent fossil find makes scientist question earlier explanations about

evolution.

- Describe the process of peer review.

C3 Chapter 3: Chemical Changes

Topics covered

- When we look around the streets today, we see a mix of cars, vans, and lorries of all shapes and sizes. Some use fossil fuels like petrol and diesel – other more modern cars run on electricity. When Carl Benz invented the car in 1886, he chose to use petrol as the fuel because it was cheap and readily available. Along with his wife Bertha, who invented many of the recognisable features of the car, like windscreen wipers and mirrors, Benz pioneered the car as we know it. His company, named after his daughter Mercedes, still exists today.
- However, electric cars are not new. Thomas Edison famously had an electric car in 1912. Electric power was seen as a rival to petrol early on due to its speed and calm ride. However, petrol had a range advantage and eventually won out. When Henry Ford invented the Model T 1908, it had a petrol engine and was the first affordable car.
- Both petrol and batteries take advantage of chemical reactions in different ways. In both cases, a reaction occurs that releases energy. In the petrol engine, the combustion reaction releases heat energy, and it is used to drive the pistons round. In the battery, the main energy transfer is by electric current to the motors caused by a difference in reactivity between two chemicals.
- In this topic, we will revisit all the knowledge that we have built up in Activate 1 and 2 on chemical reactions and look at how it can be applied to a new situation. We will look at how this has led to the development of new technologies and bridge the gap to further study at GCSE.

Cross Curricular Skills:

Literacy

- Specialist vocabulary.
- Critical review of Dalton's ideas on his work on gases.

Numeracy

- Patterns in element properties.
- Arrangement of atoms according to atomic weights in the periodic table.
- Calculate neutron numbers.
- Allocating electrons into shells of atoms.
- Appreciate what the subatomic particles bring to the understanding of patterns and trends within each group in the periodic table.

Thinking Skills

- Why does gravity not separate the heavier gas from the lighter gas.
- Clue from fossils can give us information, students need to give explanations for these clues.

Spring Term
2nd Half
Term 4
February-
March

P3 Chapter 1: Forces and Motion

- To jump up in the air, you first have to push down on the ground. But why push down to move upwards? When you push down on the ground, the ground pushes back up on you with the same size force but acting in the opposite direction. Forces always occur in pairs due to these interactions. To understand why or how the motion of an object changes, you concentrate on the forces acting on that object only. In this case, the gravity force pulling you downwards and the upwards force from the ground. If you are accelerating upwards the upwards force must be bigger. However, you always come back down. Once your feet lose contact with the ground, the only force acting on you is gravity acting downwards.
- The force of gravity is an example of a non-contact force. All masses produce a gravitational field. This is a region in space where any other object with a mass feels a force. Like the magnetic field around a magnet, you can represent the gravitational field with field lines. The closer the field lines are together the stronger the gravitational field strength. You are

	<p>attracted to other objects and they to you. However, the mass of the Earth is so much bigger than anything on it that the attraction to the Earth trumps all others.</p> <ul style="list-style-type: none"> • There is often more than one force acting on an object. The resultant force is the single force that would have the same effect as all the forces combined. You represent forces with arrows because forces have both size and direction. When you combine them to find the resultant, you have to consider this. <p>Literacy Scientific terms. This chapter has some key terms that students may have encountered in everyday life but that have specific meanings in science, such as 'rate.' Students need to be able to define terms such as 'weight,' 'mass,' and 'acceleration'</p> <p>Numeracy Units: As students start to look at data quantitatively, it is important to emphasise that you can only put numbers into a formula if the quantities have the right units. Gradients of straight lines: The formula for weight provides a chance to introduce $y = mx$ graphs in a physics context (P3 1.3 Mass, weight, and fields). With weight on the y-axis and mass on the x-axis, the gradient is the gravitational field strength of the planet/moon.</p> <p>Working Scientifically Links made to National Curriculum in detail for each lesson</p>
<p>Summer Term 1st Half Term 5 April- May</p>	<p><u>P3 Chapter 2: Energy</u> Students will be able to understand that:</p> <ul style="list-style-type: none"> • Energy is quantifiable. • Energy is stored in different forms and can be transferred between them. • Energy can transfer by heating in the following ways: conduction, convection, radiation. • Infrared radiation is a wave, like (visible) light, that can travel through a vacuum. • Energy cannot be created or destroyed. • Work done is energy transferred, work done formula. • Machines make jobs easier, but the total amount of work done is the same. • Power is the rate of transfer of energy, the power formula. <p>Literacy</p> <ul style="list-style-type: none"> • Scientific terms: This chapter has many key terms that students may have encountered in everyday life but have specific meanings in science, such as 'work done' and 'power' or 'efficiency.' Encourage students to make their own glossary of key terms which they can add to throughout the topic and refer to when answering questions. In lesson 2.7 Efficiency, students plan and write an extended answer to a question. Students have to link scientific ideas to explain why more efficient appliances benefit the environment. Model the PEEL structure to answering exam questions to support them. <p>Numeracy</p> <ul style="list-style-type: none"> • Manipulating formulae: Always model how to use and rearrange formulae. Note the units required and how to convert (if the context requires conversions). Lesson 2.6 has conversions when calculating work done and power. The elastic energy formula has a power in it – it is a good idea to check students know how to handle this. <p>Working Scientifically</p> <ul style="list-style-type: none"> • Weighing arguments: Students will have the opportunity to role-play government ministers and scientific advisors, using evidence to decide whether the government should invest in solar roads. You may wish to decide in advance which students will take which roles and who they will work with. • Modelling: Modelling energy stores with labelled jugs and pouring water between them is an effective way to model energy transfers and conservation of energy/dissipation.

<p>Summer Term 2nd Half June- July</p>	<p><u>P3 Chapter 3: Waves, Sound and light</u> Students will be able to understand.</p> <ul style="list-style-type: none"> • The concept of a wave as something that transfers energy from a source. • Sound is a longitudinal wave that travels through solids, liquids, and gases, and can be represented as sinusoidal waves – it has many applications involving reflection. • Waves have amplitude, wavelength, and frequency. • Light is a transverse wave – we represent light as a ray to show its direction. • Humans can only hear/see certain frequencies of sound/light. • Different frequencies of light correspond to us seeing different colours. • White light is made up of all other colours. <p><u>P4 Chapter 4: Electricity and Magnetism</u> Students will be able to understand.</p> <ul style="list-style-type: none"> • Charges can be positive or negative – like charges repel and opposite charges attract. • Electrons have negative charge. • If you rub two things together, you can rub electrons off one onto the other, making both objects charged. · Forces at a distance. · Static electricity and charge. · Circuits and current. · Uses and dangers of static electricity. · Drawing electric fields. · Magnetic fields around permanent and induced magnets. · Determining the direction of the Earth’s magnetic field, using a compass. • Current is the charge per second passing a point – potential difference depends on the energy given to a component by the charges passing through it. · Resistance is a measure of how difficult it is for a p.d. to push a current through a component, $V = IR$. · Simple series and parallel circuits. · What a ‘field’ is, and what shape the magnetic field is around a current-carrying wire and an electromagnet. · Magnetic poles can be north or south; like poles repel and opposite poles attract. • The main parts of a power station. <p>Literacy</p> <ul style="list-style-type: none"> • Wave speed, wavelength, amplitude, frequency, time period: These quantities are not conceptually difficult, which is perhaps why students tend to forget them. It is worth including games and quizzes on these terms regularly to improve student recall and avoid confusion when they are used in explanations. · Linking words: In lesson 3.3, students write a letter where they imagine they are a doctor explaining ultrasound. In the activity, they are encouraged to use linking words to show the relationships between their ideas. <p>Numeracy</p> <ul style="list-style-type: none"> • Using formulae: Students may need help rearranging, $f = 1/T$, as some may be confused by the ‘1’. The classic error in echolocation questions is forgetting to double the distance (or halve the time). It is worth reminding students how to convert into standard units (milliseconds to seconds, kilometres to metres), before setting them away on calculations. <p>Working Scientifically</p> <ul style="list-style-type: none"> • Science communication: This chapter allows you to focus on science communication, on how we decide what information to believe, and the potential problems that can arise when people do not understand a piece of science or technology. A suggested example is the vandalism of mobile phone masts during lockdown by people who believed the masts caused and/or spread COVID-19.
<p>Assessments</p>	<p>There will be an end-of-topic test for each module.</p> <p>Students will track their tests in class to identify which topics are strengths and weaknesses.</p>

Homework Structure	<p>Homework is set on Satchel One. Students are required to log in and follow the instructions. Tests dates will also be shared with the students on Satchel One.</p> <p>The homework is more likely to focus on reading for understanding, revising, and designing investigations.</p>
School-based enrichment opportunities	<p>STEMNET club will help challenge our future scientists to think beyond the classroom. Science and Technology are linked to provide students with an idea of what Science is like outside of lessons.</p> <p>Science Quiz inter-class activities, Science Challenge Workshops with other schools. Science week lunch activities during Science Week.</p>
Resources available for home-based study	<p>Active 3 book</p> <p>All students have access to digital AQA textbooks through Kerboodle. Students will be given passwords in the classroom. Key Stage 4 GCSE books are also available on the same site.</p> <p><u>GCSE books if students want to access work early</u></p> <p>Revision books: Revision books can be purchase at most bookstores and on</p> <p>CGP Revision books: Foundation (1-5) ISBN: 978 17 82945659 Higher ISBN (5-9): 978 17 82945642</p> <p>CGP Exam practice book Foundation (1-5): 978 17 8294 5093 Higher ISBN (5-9): 978 17 8294 5086</p> <p><u>Useful Websites</u></p> <p>https://www.senecalearning.com/ http://www.bbc.co.uk/schools/gcsebitesize/science/aqa/ https://www.teachitscience.co.uk/ http://www.bbc.co.uk/education/subjects/zrkw2hv http://www.creative-chemistry.org.uk/ http://www.s-cool.co.uk/gcse/chemistry http://www.revisionworld.co.uk</p>