# Year 7 Curriculum Overview 2024-2025

| Subject | Overview | Autumn 1<br>(Weeks 1 – 7) | Autumn 2<br>(Weeks 8 – 14) | | Spring 1<br>(Weeks 15 - 20) | Spring 2<br>(Weeks 21 - 25) | Summer 1<br>(Weeks 26 - 32) | Summer 2<br>(Weeks 33 - 38) | |
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| **English** | **Engaging** – Year 7 students study a range of different texts and topics to engage them with a love of English. Students improve their writing skills through studies on Myths & Legends. Students, also, progress in their reading and analytical skills by studying a variety of interesting literature texts in different forms and genres: *Oliver Twist* (prose), Natural World (poetry), *Dracula* (plays). | **Exploration of Creative Writing: Myths & Legends** Students improve their writing skills by studying a range of myths and legends – from Pandora's Box to King Arthur. They learn how to employ specific techniques in their own writing to engage readers. | **Prose Study: *Oliver Twist*** **Students** improve their reading skills and gain a good understanding of 19th Century London by studying Charles Dickens' popular novel, *Oliver Twist.* They learn how to analyse a text for the writer's methods and effects created. | **Assessment** | **Introduction to Drama: Dracula** Students learn a different form of text: plays. Pupils study Dracula, learning key conventions of play texts and the Gothic genre. Students learn to develop their analytical skills through analysing extracts. | **Non-Fiction: The Power of Thought** Students are introduced to nonfiction writing through the exploration of war over time. They learn how to utilise key conventions of nonfiction in their own witing. | **Poetry Study: Natural World** Students are introduced to poetry and learn key techniques and terminology. They study a range of poems and develop their analytical skills. | **Genre Study: Science Fiction** Students study a range of texts with a futuristic setting and learn how to embed this genre into their own creative writing. They build upon the writing skills they have been practising throughout the year. | **Assessments** |
| **Science** | Year 7 students explore key aspects of the 3 different Sciences:<br>**Biology**: Organisms, Cells and Transport; Ecosystems and plant reproduction; Variation and reproduction.<br><br>**Chemistry**: Substance and Properties; Metals, acids and alkalis; Earth and the universe.<br><br>**Physics**: Energy Transfers and Costs; Waves – light and sound; Forces – Speed and gravity. | **Biology: Ecosystems –** The structure of ecosystems, how plants reproduce and competition within communities.<br><br>**Chemistry: Substance and properties –** Exploring the particle model and changing of state.<br><br>**Physics: Forces – Speed and Gravity** – Investigating the effects of forces in terms of speed and acceleration | **Biology: Ecosystems –** The structure of ecosystems, how plants reproduce and competition within communities.<br><br>**Chemistry: Substance and properties –** Exploring the particle model and changing of state.<br><br>**Physics: Forces – Speed and Gravity** – Investigating the effects of forces in terms of speed and acceleration | | **Biology: Cells and movement** – Introduction to the building blocks of life and how animal and plants formed with tissue to organs<br><br>**Chemistry: Earth structure and rock cycle**– Focus on 3 types of rock (Igneous, Sedimentary and Metamorphic) and how they are weathered and eroded.<br><br>**Physics: Waves – light and sound** - Exploring the properties of light and sound. | **Biology: Cells and movement** – Introduction to the building blocks of life and how animal and plants formed with tissue to organs<br><br>**Chemistry: Earth structure and rock cycle**– Focus on 3 types of rock (Igneous, Sedimentary and Metamorphic) and how they are weathered and eroded.<br><br>**Physics: Waves – light and sound** - Exploring the properties of light and sound. | **Biology**:<br>Organisms – breathing and digestion; Ecosystems – photosynthesis and respiration; Evolution and inheritance<br><br>**Chemistry: Particle structure and the Periodic table –** Investigate the structure of atoms and how they are arranged in the Periodic table.<br><br>**Physics: Energy transfers and cost –** Investigating the different types of energy and how we generate electricity. | **Biology**:<br>Organisms – breathing and digestion; Ecosystems – photosynthesis and respiration; Evolution and inheritance<br><br>**Chemistry: Particle structure and the Periodic table –** Investigate the structure of atoms and how they are arranged in the Periodic table.<br><br>**Physics: Energy transfers and cost –** Investigating the different types of energy and how we generate electricity. | |

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| **Mathematics** | Over the course of year 7, students will begin KS3 by ensuring the security of knowledge gained across KS2. This knowledge is extended and developed to look at applied versions, with a distinct emphasis on problem solving. During the year, students will be introduced to algebraic concepts in depth for the first time.<br>Additionally, students will learn about different types of numbers, including decimals, fractions, prime numbers, square, cube numbers etc., and use them in different capacities, including geometric and ratio problems. | **Place value and ordering integers and decimals**<br><br>Recognise and use integer place value up to one billion<br><br>• Recognise and use decimal place value to at least hundredths.<br>• Work out intervals and use number lines.<br>• Compare and order numbers.<br>• Use ordered lists to find the range and the median of a set of numbers.<br>• Round numbers to positive powers of ten<br>• Round numbers to one significant figure<br><br>**Solving problems with Addition and Subtraction**<br><br>• Use mental and formal written methods of addition with integers and decimals, including choosing the most appropriate method.<br>• Solve problems in the context of perimeter, money and frequency trees and tables.<br>• Solve problems in the context of bar charts and line charts.<br><br>**Solving problems with multiplication and division**<br><br>• Multiply by 10, 100 and 1000, 0.1 and 0.01, and convert metric units.<br>• Use mental and formal written methods of multiplication and division. | *(Conclude solving problems with multiplication and division, then move on to the next unit)*<br><br>**Understand and use algebraic notation.**<br><br>• Use single function machines and series of two function machines with numbers, bar models and letters.<br>• Use and interpret algebraic notation.<br>• Understand and use inverse operations.<br>• Form and substitute into expressions, including to generate sequences.<br>• Represent functions graphically.<br><br>**Equality and Equivalence**<br><br>• Understand equality.<br>• Use fact families.<br>• Form and solve one-step equations.<br>• Understand equivalence of algebraic expressions<br>• Collect like terms.<br><br>**Operations and equations with directed number**<br><br>• Order directed numbers, both in contextualised and abstract situations<br>• Revisit four operations to include directed number.<br>• Use a calculator with directed number.<br>• Solve two-step equations (with and without a calculator)<br>• Use the order of operations. | **Assessments** | *(Conclude Operations and equations with directed number then move on to the next unit)*<br><br>**Addition and subtraction of fractions**<br><br>• Represent tenths and hundredths on diagrams and number lines.<br>• Convert mixed numbers and improper fractions.<br>• Add and subtracting fractions with<br>  • the same denominator<br>  • one denominator a multiple of the other<br>  • different denominators<br>• Add and subtract fractions and decimals<br>e.g., $\frac{3}{4} + 0.2$<br><br>**Constructing, measuring, and using geometric notation**<br><br>• Mental arithmetic strategies<br>• Use known facts to derive other facts,<br>• Evaluate an algebraic expression given a related fact<br>• Use estimation. | *(Conclude constructing, measuring, and using geometric notation then move on to the next unit)*<br><br>**Sequences**<br><br>• Describe and continue sequences in diagram and number forms, both linear and non-linear<br>• Compare numerical and graphical forms.<br><br>**Developing Geometric Reasoning**<br><br>• Calculate and use angles at a point, angles on a straight line and vertically opposite angles.<br>• Calculate missing angles in triangles and quadrilaterals. | *Conclude Developing Geometric Reasoning then move on to the next unit)*<br><br>**Prime numbers and proof**<br><br>• Recognise prime, square and triangle numbers.<br>• Express a number as a product of prime factors.<br>• Powers and roots<br>• Make and test conjectures.<br>• Understand and use counterexamples.<br><br>**Fraction, decimal and percentage equivalence**<br><br>• Represent tenths and hundredths on diagrams and number lines.<br>• Interchange between fractions, decimals, and percentages for multiples of one tenth and one quarter<br>• Interpret pie charts.<br>• Equivalent fractions<br>• Convert between other fractions, decimals, and percentages. | **Fractions and Percentages of amounts**<br><br>• Work out simple fractions and percentages of amounts, with and without a calculator<br><br>**Multiplying and Dividing Fractions**<br><br>• Multiply and divide a fraction by an integer.<br>• Multiply and divide a fraction by a fraction.<br>• Understand and use the reciprocal.<br><br>**Ratio and Scale** | **Assessments** |

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| Further reading: | Suggested family trips/activities to reinforce learning: |
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| **English –**<br>• The Diary of Anne Frank<br>• The Sword in the Stone – T.H White<br>• Percy Jackson and the Lightning Thief – Rick Riordan<br>• Private Peaceful – Michael Morpurgo<br><br>**Mathematics –**<br>• The Number Devil, by Hans Magnus Enzensberger<br>• The Code Book, by Simon Singh<br>• Alex's Adventures in Numberland, by Alex Bellos<br>• Cabinet of Mathematical Curiosities, by Ian Stewart<br><br>**Science –**<br>• What If by Randall Munroe<br>• Curious Minds by Jordan Moore<br>• Ready Player 1 by Enerst Cline | **English** –<br>➢ The Globe Theatre – London<br>➢ Theatre Productions – Norwich Theatre Royal<br>➢ Charles Dickens Museum – London<br><br>**Maths –**<br>➢ Science Museum London<br>➢ STEM Centre in York<br>➢ Bletchley Park<br>➢ Royal Observatory at Greenwich<br><br>**Science** -<br>➢ >Science Museum London |