

# **Science**

### Energy, electricity and forces

Light

Sound

Renewable energy

Emerging technologies

Electrical circuits

How to measure current and voltage

Force and its effect on objects

Magnetic fields

Electromagnets

Gravity

Friction

#### Chemical and material behaviour

- Properties and behaviour of matter
- Elements in the Periodic Table
- Atoms and compounds
- Chemical properties and patterns
- pH scale for acids, alkalis and bases
- Solids, liquids and gases





# Science

### Organisms, behaviour and health

- Tissues, organs and body systems
- Plant and animal cells
- Life processes
- Human reproduction, including fertilisation and foetal development
- Adolescence
- Importance of healthy eating and exercise
- Effects of drugs such as tobacco and alcohol
- Digestion
- Respiration and breathing
- Effects of viruses and bacteria
- Variation in living things
- Human and animal behaviour
- Living things and their habitats
- Food chains
- Dissection

#### The environment, Earth and the universe

- Igneous, sedimentary and metamorphic rock formation
- Weathering of rocks
- Motions of the sun, moon, stars and planets
- · Causes of changes in the environment



# **English**

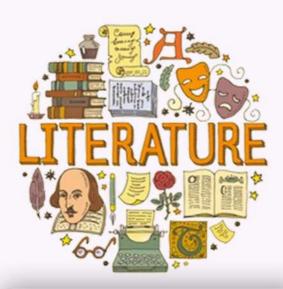
### In KS3 Year 7, English curriculum evolves around 4 key ares

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- Reading
- Writing
- Language
- · Speaking and listening

### English Literature

- Poetry
- Language
- Narrative
- Non Fiction writing
- Novels
- Drama
- Shakespeare





## Math

#### Numbers

- Decimal notation and place value
- Comparing decimals
- Rounding whole numbers and decimals
- Positioning negative numbers on a number line
- Understanding integers
- Highest common factors and lowest common multiples
- The squares of numbers up to 12x12 and their roots
- Simplifying fractions
- Adding and subtracting fractions
- · Calculating percentages
- Ratio and proportion
- · Calculations with brackets
- Solving problems using mental maths and calculators

### Algebra

- Using letters to represent numbers
- Simplifying equations
- Solving simple equations
- Number sequences
- Input, output and mapping diagrams
- Plotting graphs using coordinates





# Math

#### Geometry and measures

- Recognising parallel and perpendicular lines
- Calculating the sum of angles on a point, triangle and straight line
- Using the correct geometrical terms
- Geometrical problems using triangles and quadrilaterals
- Reflections, rotations and translations of 2D shapes
- Symmetry of a 2D shape
- · Finding coordinates of points
- Using a ruler and protractor to draw accurate lines, angles and triangles, and construct 3D shapes
- Estimating and calculating problems involving measuring
- Converting metric units
- Estimating the size of acute, obtuse and reflex angles
- Learning the formula for calculating the area of a rectangle
- Surface area of cubes and cuboids

#### **Statistics**

- Collecting data from surveys and experiments
- Designing questionnaires to collect data
- Creating frequency tables
- · Calculating statistics
- Finding the mode, median and mean
- Creating and interpreting graphs, pie charts and diagrams showing data, on paper and using ICT
- Writing a statistical report
- Understanding probability terms such as likely, unlikely, impossible, probably
- Estimating probability from a simple experiment
- Comparing probabilities