Curriculum Overview for Year 8

English

Writing

- Is imaginative, adaptable to range of forms, conventions & audiences or purposes.
- Uses information, ideas and events which are skilfully managed and shaped to achieve intended purpose and effect.
- To craft individual paragraphs for imaginative or rhetorical effect.
- To write with a variety of sentence structures, across a whole text for achieve purpose and overall effect.
- To use consistent, imaginative vocabulary and accurate spelling.
- Punctuation is used ambitiously and accurately for different sentence types and direct speech is accurate.

Reading

- To select textual supportive points made and to embed them into analytical writing.
- To evaluate how structural choices, support a writer's purpose.
- To analyse language & consider how the writer's language contributes to the overall effect on the reader.
- To comment on the writer's viewpoint and purpose.
- To infer how characters may be linked to certain themes/ideas or how different text meanings and interpretations relates to context in which it is read or written.
- To evaluate the meaning & impact of a range of language features.

Speaking and Listening

- To explore a wide range of subject matter with precision and effect when conversing and to manage and manipulate talk, to position the listener.
- To make generally apt, flexible choices of vocabulary, grammar and non-verbal features across different registers.
- To identify significant features of language and variation in own and evaluate the meaning and impact of a range of others' discourse.
- Applying dramatic approaches with confidence when role-playing.

Mathematics

Number and Calculation

- Round whole numbers to a positive integer power of 10, or decimals to the nearest whole number.
- Recall squares to 20x20, cubes to 5x5x5 and corresponding roots.
- Use known facts and place value to multiply and divide simple decimals.
- Solve simple word problems include direct proportion problems.
- Divide integers and decimals by single digit number and numbers with differing number decimal place
- Calculate squares, positive & negative square roots, cubes & cube roots.
- Simplify ratios, divide quantity into more than two parts in a given ratio

Algebra and Geometry

- Know letters play different roles in equations, formulae and functions
- Consolidate linear expressions.
- Express simple functions algebraically and in mappings.
- Understand congruency in relation to sides and angles.
- Know & understand hypotenuses.
- Find the midpoint of a line segment using its coordinates.
- Substitute positive and negative integers into formulae, linear expressions & those with indices.
- Solve geometric problems using angles, lines, triangles, and quadrilats.

Handling Data and Measures

- Interpret & make scale drawings
- Construct & use frequency and two-way tables to record data.
- Consolidate static calculations.
- Know the meaning of p and 1-p.
- Draw and interpret stem-and-leaf diagrams and other charts & lines
- Use rulers and compasses to construct circles, arcs, right angled, isosceles and equilateral triangles.
- Define a circle, its parts and the formulae to calculate circumference and area.
- Compare proportions in two pie charts
- Consolidate experimental and theoretical probabilities.

SCIENCE

Biology

- Plants: Photosynthesis and transport of water and minerals
- Food and digestion: Nutrients, balanced diet and digestion and absorption
- The circulatory system: Human circulatory system
- Respiration: Human respiratory system, keeping fit and health
- Reproduction and development: The human reproductive system, growth and development

Chemistry

- States of matter: Particle theory, diffusion and gas pressure
- Elements and compounds: Atoms and elements, the Periodic Table and compounds
- Mixtures: Compounds and mixtures, separating mixtures and solubility
- Material changes: Physical and chemical change, rearranging atoms and detecting chemical change

Physics

- Measuring motion: Speed, patterns of movement and distance-time graphs
- Sound: How sound travels, vibrations and hearing
- Light: Path of light, reflection and refraction
- Magnetism: Magnetic materials, electromagnets and magnetic fields

Scientific enquiry

- developing empirical questions which can be investigated
- collecting evidence, developing explanations and using creative thinking.
- Select ideas and turn them into a form that can be tested.
- Plan investigations to test ideas.
- Use a range of equipment correctly.
- Discuss and control risks to themselves and others.
- Present results as appropriate in tables and graphs.
- Make simple calculations.
- Identify trends and patterns in results (correlations).
- Discuss explanations for results using scientific knowledge and understanding.

Art & Design

- Pop art and artists. Silkscreen printing.
- Introducing to the medium of silk-screen printing through the artworks of Andy Warhol.
- Creating stencils for use in printing.
- Evaluating and analysing creative works using the
- language of art, craft and design
- Sketching and painting. Develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space

Computing

- Internet safety focussing on phishing, spam, creating strong passwords, online photo manipulation to represent reality, research citations
- Understanding computers/physical computers inc. using BBC Bit mini computers for programing
  - Online publishing
  - Using search engines efficiently to research work
- Using the digital cloud
- Data representation and binary coding

Design & Technology

- Eco design. Designing and making a new product prototype reusing waste items.
- Making Lanterns.
- Jewellery Design. Design and make a wire Jewellery to a given theme.
- Food catering. Producing a healthier meal Students
  - consider factors such as the importance of a balanced diet, cost, availability, and health concerns.

Geography

- Physical geography of a region- Africa
- Understanding Migration + Population. Current in the news. Human geography
- Energy resources Conservation.
- Define and describe renewable energy.

History

- Slavery. The Transatlantic Slave Trade, 15-18th centuries.
- Tracing the development of the French Revolution from the monarchy through to Napoleon
- Discussing abuses of power during the French Revolution

German

- Argumentieren (Standpunkte aufgreifen, Meinung darlegen und begründen, Gegenargumente finden) und Diskutieren
- Eine Pro/Kontra Diskussion durchführen mit Diskussionsleitung (Sprecher) und Beobachter
- Argumentationen veranschaulichen: Metapher, Vergleiche, schildernde Passagen
- Kurze Referate als Grundlage für eine Diskussion

Music

- Read notation in treble and bass clef independently
  - Record independently own composition using music technology
  - Use advanced rhythmic notation
  - Learn and sing 3-part song

PSHE

- Mental wellbeing
- Online Media
- Physical fitness-Healthy eating
- Families
- Changing adolescent body

Religious Education

- RE foundation: Explore Main religions
- Festivals celebrated across world religions
- Symbols and actions across world religions Celebrating the fruitfulness of the Earth

Physical Education

- Football
- Netball
- Hockey
  - Basketball
  - Health and fitness
  - Gymnastics
  - Dance
- Handball
- Athletics