



Syllabus Outline - For Admission in Y8

(Minimum Age 13, Maximum Age 13.11 Years on 1st September, 2024)

Subject	Syllabus
English	<p>Comprehension: Fiction, Non-Fiction.</p> <p>Writing Skills: Story writing (descriptive and narrative), article writing, letter writing.</p> <p>Grammar: Making complex sentences, using different tenses, using phrasal verbs and use of figurative language.</p>
Mathematics	<ul style="list-style-type: none"> ▪ Multiples, Factors and Primes ▪ Squares, cubes, roots and indices. ▪ Rules of arithmetic. ▪ Adding, subtracting, multiplying and dividing integers, decimals and fractions. ▪ Comparing and ordering whole numbers, decimals and fractions. ▪ Finding Fractions and percentages of quantities. ▪ Converting between fractions, decimals and percentages. ▪ Ratio and proportion ▪ Calculating and using percentages ▪ Percentage increase and decrease ▪ Understand term-to-term rules and generate sequences from numerical and spatial patterns (including fractions). <p>Algebra</p> <ul style="list-style-type: none"> ▪ Deriving and using formulae ▪ Collecting like terms ▪ Simplifying and expanding algebraic expressions. ▪ Factorizing algebraic expressions ▪ Constructing expressions. ▪ Solving linear equations. ▪ Inequalities. <p>Geometry</p> <ul style="list-style-type: none"> ▪ Units of length, area, volume and capacity ▪ Solving geometric problems using properties of angles of parallel and intersecting lines and of triangles and special quadrilaterals ▪ Recognizing congruent shapes ▪ Know the properties of triangles and quadrilaterals ▪ Area of triangles, squares, rectangles, parallelogram, trapezia and circle ▪ Area and perimeter of compound shapes ▪ Transformation

	<p>Handling Data</p> <p>Statistics and Probability</p> <ul style="list-style-type: none"> • Frequency diagrams, bar charts, pie charts, line graphs and stem and leaf diagrams • Data Collection and Sampling. • Interpreting real-life graphs, travel graphs, time series graph • Plotting and interpreting graphs • Averages and ranges. • Experimental and theoretical Probability. • Bearings • Midpoint of a line segment. <p>Transformations: Translating, reflecting, rotating and enlarging shapes</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Science</p>	<ul style="list-style-type: none"> ✓ UNIT 1: Respiration <ul style="list-style-type: none"> 1.1: The Human respiratory System 1.2: Gas Exchange 1.3: Breathing 1.4: Respiration 1.5: Blood ✓ UNIT 2: Properties of Material <ul style="list-style-type: none"> 2.1: Dissolving 2.2: Solutions & Solubility 2.3: Planning a Solubility Investigation 2.4: Paper Chromatography ✓ UNIT 3: Forces and Energy <ul style="list-style-type: none"> 3.1: Forces & Motion 3.2: Speed 3.3: Describing Movements 3.4: Turning Forces 3.5: Pressure between Solids 3.6: Pressure in Liquids & Gases 3.7: Particles on the Move Kinetic Particle Theory Mass & Gravity ✓ UNIT 4: ECOSYSTEMS <ul style="list-style-type: none"> 4.1: The Sonoran Desert 4.2: Different Ecosystems 4.3 Intruders in an Ecosystem 4.4: Bioaccumulation ✓ UNIT 5: Materials & Cycles on Earth <ul style="list-style-type: none"> 5.1: The Structure of the Atom 5.2: Purity 5.3: Weather & Climate 5.4: Climate & Ice Ages

	<p>5.5: Atmosphere & Climate Periodic table (Names, symbols of first 20 elements, metals and non-metals as the two main groupings of elements) Difference between elements, compounds and mixtures</p> <p>✓ UNIT 6: LIGHT 6.1: Reflection 6.2: Refraction 6.3: Making Rainbows 6.4: Colors of Light 6.5: Galaxies 6.6: Rocks in Space</p> <p>✓ UNIT 7: DIET & GROWTH 7.1: Nutrients 7.2: A balanced Diet 7.3: Growth, Development & Health 7.4: Moving the Body</p> <p>✓ UNIT 8: Chemical Reactions 8.1: Exothermic Reactions 8.2: Endothermic Reactions 8.3: Reactions of Metals with Oxygen 8.4: Reactions of Metals with Water 8.5: Reactions of Metals with Dilute Acid Acids & Alkalis, Indicators and the pH scale</p> <p>✓ UNIT 9: MAGNETISM 9.1: Magnetic Fields 9.2: The Earth as a Giant Magnet 9.3 Electromagnets 9.4: Investigating Electromagnets</p>
Urdu	<ul style="list-style-type: none"> • مضمون نویسی • تفہیم • جملہ سازی • ای میل