

Junior High EMS

Why this course?

Many junior high students feel overwhelmed by the increasing academic demands. Our program provides a supportive environment where students can gain confidence and build essential skills for high school.

What you'll gain:

Grade 6: Focused preparation for high school, ensuring you're familiar with the academic expectations and workload.
Grades 7 & 8 : In-depth exploration of fundamental Math and Science concepts (partly aligned with the NESAsyllabus), plus dedicated focus on understanding poetry.

What's included:

Small group classes: Learn and interact in a small group setting (2.5 hours per class).

Comprehensive study materials: Receive weekly notes for Math & Science, featuring clear explanations, worked examples, diagrams, and memory aids.

Regular assessments: Track your progress with weekly trial tests in Reading, Writing, Mathematics, and Science.

Online homework: Reinforce learning with one Labvision homework module per term (10 attempts allowed).

Fees:

\$105 per class

\$1050 per term (10 classes)

Curriculum :

Grade 6 EMS	Literacy	Mathematics	Science
<p>Grade 6 Term 3</p>	<p>Close Reading and Textual Analysis Basics – Poetry and Prose</p> <ul style="list-style-type: none"> - <i>Close Reading Skills</i> <ul style="list-style-type: none"> - Analyzing vocabulary in context, figurative language, and imagery - Identifying theme and author’s purpose in both poetry and prose - <i>Poetry: Thematic Analysis</i> <ul style="list-style-type: none"> - “A Poison Tree” by William Blake – Exploring anger and conflict - “The Walrus and the Carpenter” by Lewis Carroll – Symbolism and irony - “The Raven” (abridged) by Edgar Allan Poe – Introduction to mood, tone, and suspense - <i>Short Stories for Analysis</i> <ul style="list-style-type: none"> - “The Happy Prince” by Oscar Wilde – Exploring themes of 	<p>Number Theory:</p> <ul style="list-style-type: none"> Divisibility Rules: Divisibility tests for 2, 3, 4, 5, 6, 8, 9, 10, and 11. Prime Factorization: Finding prime factors, highest common factor (HCF), and least common multiple (LCM). Modular Arithmetic: Introduction to the concept of congruence and basic operations modulo n. <p>Further Algebra and Equations:</p> <ul style="list-style-type: none"> Algebraic Fractions: Simplifying algebraic fractions, operations with algebraic fractions. Linear Equations and Inequalities in Two Variables: Graphing linear equations and inequalities, solving systems of linear inequalities. Rational Equations: Solving equations involving algebraic fractions. <p>Geometry:</p> <ul style="list-style-type: none"> Circle Theorems: Properties of chords, 	<p><i>Energy</i></p> <ul style="list-style-type: none"> Forms of energy (heat, light, sound, electrical, mechanical, chemical) Energy transformations (e.g., from potential to kinetic energy) Energy conservation (law of conservation of energy) Simple machines (lever, pulley, inclined plane, wheel and axle, wedge, screw) and how they work Sources of energy (renewable and non-renewable) Energy efficiency and conservation in everyday life <p><i>Matter</i></p> <ul style="list-style-type: none"> States of matter (solid, liquid, gas) and their properties Changes of state (melting, freezing, boiling, condensation,

	<p>sacrifice and compassion - “Rikki-Tikki-Tavi” by Rudyard Kipling – Identifying conflict and resolution</p> <p>- <i>Textual Analysis Basics</i> - Recognizing literary devices in texts: similes, metaphors, personification - Introduction to annotation and marking up texts for understanding</p>	<p>tangents, and angles in circles. Similar Triangles: Properties of similar triangles, solving problems involving similar triangles. Geometric Proofs: Writing formal proofs for geometric theorems.</p>	<p>sublimation) Mixtures and solutions Separating mixtures (filtration, evaporation, distillation, magnetism)</p> <p><i>Cells and Life Processes</i> Plant and animal cells (structure and function) Microscopes and cell observation Photosynthesis (process and importance) Respiration (process and importance)</p>
Grade 6 Term 4	<p>Close Reading and Textual Analysis Basics – Visual Texts and Plays - <i>Analyzing Visual Texts</i> - Understanding layout, color, perspective, and symbolism in visual storytelling - Analyzing illustrated texts and graphic stories for mood and tone</p> <p>- <i>Plays and Dramatic Texts</i> - “A Midsummer Night’s Dream” (abridged, selected scenes) by William Shakespeare – Introducing</p>	<p>Coordinate Geometry: Distance Formula: Finding the distance between two points in the coordinate plane. Midpoint Formula: Finding the midpoint of a line segment. Equation of a Straight Line: Different forms of the equation of a line (slope-intercept, point-slope, general form).</p> <p>Mensuration: Area and Perimeter: Calculating the area and perimeter of triangles, quadrilaterals, and circles. Surface Area and Volume: Calculating the</p>	<p><i>Light and Sound</i> Properties of light (reflection, refraction, absorption) How we see (structure and function of the eye) Properties of sound (pitch, loudness, how sound travels) How we hear (structure and function of the ear)</p> <p><i>Chemical Reactions</i> Physical and chemical changes Acids and bases (properties and indicators)</p>

	<p>comedy and dramatic irony - Exploring dialogue, stage directions, and character motivation</p> <p>- <i>Poetry for Performance and Expression</i> - “Casey at the Bat” by Ernest Lawrence Thayer – Narrative poetry and rhythm - “Life Doesn’t Frighten Me” by Maya Angelou – Confidence and resilience in poetry</p>	<p>surface area and volume of prisms, cylinders, cones, and spheres.</p> <p>Further Algebra: Sequences and Series: Arithmetic and geometric sequences and series, finding the nth term and sum of terms. Binomial Theorem: Expanding $(a + b)^n$ for positive integer values of n.</p>	<p>Neutralization reactions</p> <p><i>Ecosystems</i> Living and non-living components of an ecosystem Food chains and food webs Adaptations of organisms to their environment Human impact on ecosystems</p>
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Grade 7 EMS	Literacy	Mathematics	Science
Grade 7 Term 1	<p>Courage and Narrative Foundations</p> <p><i>1. Themes in Poetry: Courage</i> Core Poems: - "Invictus" by William Ernest Henley - "If" by Rudyard Kipling - "Still I Rise" by Maya Angelou - "Life Doesn't Frighten Me" by Maya Angelou - "The Road Not Taken" by Robert Frost</p> <p><i>2. High School Narrative Writing Basics</i> Elements of Storytelling - Plot structure - Character development - Setting description - Point of view - Dialogue writing</p> <p><i>3. Creative Writing</i> Personal narrative essay</p>	<p>Index Laws: Review of basic index laws (multiplication, division, power of a power) Extending index laws to include zero, negative, and fractional indices Scientific notation and significant figures Applications of index laws in problem-solving</p> <p>Angles Theorems: Review of basic angle properties (complementary, supplementary, vertically opposite) Angles in parallel lines (alternate, corresponding, co-interior) Angle sum of triangles and quadrilaterals Proofs involving angle theorems</p> <p>Review: Revision of key concepts from previous years, including fractions, decimals, percentages, and basic algebra</p> <p>Further Pythagoras' Theorem: Applications of Pythagoras' theorem in 2D and 3D problems</p>	<p><i>Life Science - Cells, Classification, and Ecology</i></p> <p>Cells: Introduction to cell theory Microscopes and cell observation Prokaryotic vs. eukaryotic cells Plant vs. animal cells Cell organelles and their functions (nucleus, cytoplasm, cell membrane, mitochondria, chloroplasts, etc.) Cell processes: photosynthesis, respiration, cell division (mitosis)</p> <p>Classification: The need for classification Linnaean classification system (Kingdom, Phylum, Class, Order, Family, Genus, Species) Dichotomous keys</p>

	<p>Short story writing incorporating themes of courage Character sketches</p>	<p>Converse of Pythagoras' theorem Problem-solving involving Pythagoras' theorem</p> <p>Probability: Basic probability concepts (sample space, events, outcomes) Calculating probability of simple events Tree diagrams and Venn diagrams</p> <p>Further Algebra: Expanding and factorizing algebraic expressions Solving linear equations and inequalities Introduction to quadratic equations</p> <p>Rate and Ratios: Understanding rates and ratios Simplifying ratios Direct and inverse proportion Applications of rates and ratios in real-life problems</p>	<p>Classification of living things into major kingdoms (animals, plants, fungi, protists, bacteria) Ecology: Levels of organization (organism, population, community, ecosystem, biome) Interactions within ecosystems (food chains, food webs, predator-prey relationships, symbiosis) Biomes of the world (e.g., rainforest, desert, grassland) Environmental issues (pollution, deforestation, climate change)</p>
Grade 7 Term 2	<p>Change and Discursive Writing</p> <p><i>1. Themes in Prose: Change</i> Short Stories: - "The Giver" (excerpt) by Lois Lowry - "Thank You, M'am" by</p>	<p>Algebra Revision: Comprehensive review of all algebra topics covered in Term 1 Solving simultaneous equations (graphical and algebraic methods) Introduction to functions and their graphs</p>	<p><i>Physical Science - Matter and Mixtures</i></p> <p>Matter: States of matter (solid, liquid, gas) and their properties</p>

	<p>Langston Hughes - "The Fun They Had" by Isaac Asimov - "All Summer in a Day" by Ray Bradbury</p> <p><i>2. High School Discursive Writing Basics</i> Essay structure Thesis statements Topic sentences Supporting evidence Transitions Conclusions</p> <p><i>3. Poetry on Change</i> "Nothing Gold Can Stay" by Robert Frost "Warning" by Jenny Joseph "Caged Bird" by Maya Angelou</p>	<p>Circle Geometry: Parts of a circle (radius, diameter, circumference, chord, tangent, sector, segment) Angle properties of circles (angles at the center, angles at the circumference) Tangent-chord theorem</p> <p>Surface Area and Volume: Surface area and volume of prisms and cylinders Nets of 3D shapes</p> <p>Equations and Inequalities: Solving linear equations and inequalities with one variable Solving systems of linear equations</p> <p>Further Probability: Independent and dependent events Conditional probability</p> <p>Surds: Simplifying surds Operations with surds (addition, subtraction, multiplication, division) Rationalizing the denominator</p>	<p>Changes of state (melting, freezing, boiling, condensation, sublimation) Particle model of matter Density and buoyancy Mixtures: Types of mixtures (solutions, suspensions, colloids) Separating mixtures (filtration, evaporation, distillation, chromatography) Solutions and solubility Acids, bases, and pH scale</p>
Grade 7 Term 3	Australian Literature and Poetry	Coordinate Geometry Continued: Plotting points in the Cartesian plane	<i>Earth and Space Science - Astronomy, Water, and</i>

	<p><i>1. Short Stories - Australian Writers</i> Paul Jennings Collection: - "Without a Shirt" - "The Copied Cat" - "Lucky Lips" Other Australian Writers: - "The Load of Unicorn" by Robin Klein - "The Children Who Loved Books" by Peter Carnavas</p> <p><i>2. Poetry Studies</i> Poetic Forms: - Sonnets - Ballads - Free verse - Haiku - Cinquain</p> <p><i>3. Australian Poetry</i> "My Country" by Dorothea Mackellar "Bell-Birds" by Henry Kendall "In the Park" by Gwen Harwood</p> <p><i>4. Nature in Literature</i> Environmental themes</p>	<p>Distance formula Midpoint formula Gradient of a line</p> <p>Further Coordinate Geometry: Equation of a straight line (different forms) Parallel and perpendicular lines Applications of coordinate geometry in problem-solving</p> <p>Applications of Coordinate Geometry: Using coordinate geometry to solve problems related to area, perimeter, and other geometric concepts</p> <p>Congruency and General Revision: Congruent triangles (SSS, SAS, ASA, RHS) Proofs involving congruent triangles Revision of key concepts from Terms 1 and 2</p> <p>Further Congruency: Applications of congruency in geometric constructions and problem-solving</p>	<p><i>Forces</i></p> <p>Astronomy: The solar system (planets, moons, asteroids, comets) The Sun and its characteristics Earth's movements (rotation and revolution) and their effects (day/night, seasons) The Moon and its phases Space exploration</p> <p>Water and Resources: Water cycle (evaporation, condensation, precipitation) Water resources (oceans, rivers, lakes, groundwater) Water pollution and conservation Renewable and non-renewable resources</p> <p>Forces: Types of forces (gravity, friction, magnetism, buoyancy) Effects of forces (motion, change in shape) Simple machines (lever,</p>
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	<p>Landscape descriptions Nature symbolism Indigenous perspectives on nature</p>		<p>pulley, inclined plane, wheel and axle, wedge, screw)</p>
Grade 7 Term 4	<p>Novel Study and Media Literacy</p> <p><i>1. Novel Study</i> Major Works (choose one): "Nan Chauncy" by Tiger in the Bush "Looking for Alibrandi" by Melina Marchetta "Chinese Cinderella" by Adeline Yen Mah "Dragonkeeper" by Carole Wilkinson</p> <p><i>2. Film Study</i> Basic film techniques: - Camera angles - Shot types - Lighting - Sound - Editing</p> <p><i>3. Comparative Study</i> Book-to-film adaptation analysis Cultural representations</p>	<p>Similar Triangles: Properties of similar triangles Scale factors and ratios of corresponding sides Applications of similar triangles</p> <p>Surface Area and Volume: Review of surface area and volume of prisms and cylinders Surface area and volume of pyramids and cones</p> <p>Surface Area and Volume of Pyramids: Calculating the surface area and volume of different types of pyramids</p> <p>Revision and Statistics: Comprehensive revision of all topics covered throughout the year Data collection and representation (graphs, tables, charts) Measures of central tendency (mean, median, mode) Measures of dispersion (range, interquartile range)</p>	<p><i>Earth Science - Rocks and Investigations</i></p> <p>Rocks: Types of rocks (igneous, sedimentary, metamorphic) The rock cycle Minerals and their properties Soil formation and composition</p> <p>Investigations and Problem Solving: Scientific method (observation, hypothesis, experiment, data analysis, conclusion) Experimental design (variables, controls) Data collection and presentation (tables, graphs) Scientific writing and communication</p>

	Asian-Australian perspectives	<p>Applying Formulas: Solving problems using various formulas from different areas of mathematics</p> <p>Simple and Compound Interest: Calculating simple interest Calculating compound interest Applications of simple and compound interest in real-life scenarios</p> <p>Transformations: Translations, reflections, rotations, and dilations Combining transformations</p> <p>Trigonometry: Introduction to trigonometric ratios (sine, cosine, tangent) Solving right-angled triangles using trigonometry</p> <p>Sets: Basic set theory (union, intersection, complement) Venn diagrams and set notation</p>	
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Grade 8 EMS	Literacy	Mathematics	Science
Grade 8 Term 1	<p><i>Context Basics</i></p> <ul style="list-style-type: none"> - Core Text: The Merchant of Venice by William Shakespeare - Context Exploration: Introduction to Elizabethan England, social norms, and historical backdrop. - Character Analysis: Shylock, Portia, and Antonio, focusing on how context influences their actions. - Poetry Study: <ul style="list-style-type: none"> - "The Seven Ages of Man" from As You Like It by William Shakespeare - "If" by Rudyard Kipling - Writing Skills: Persuasive Writing 2 <ul style="list-style-type: none"> - Topics: Rhetorical devices, persuasive techniques, and audience awareness. - Contextual Research: How Renaissance culture shaped literature. - Additional Short Story: "The 	<p>Number and Algebra</p> <p>Algebra Review:</p> <ul style="list-style-type: none"> Simplifying expressions Expanding brackets Solving linear equations Solving linear inequalities Introduction to functions (linear) <p>Indices:</p> <ul style="list-style-type: none"> Index laws (multiplication, division, power of a power) Zero and negative indices Scientific notation <p>Financial Mathematics:</p> <ul style="list-style-type: none"> Simple interest Compound interest Percentage increase and decrease Profit and loss <p>Measurement and Geometry</p> <p>Congruency Revision:</p> <ul style="list-style-type: none"> Tests for congruence (SSS, SAS, ASA, RHS) Proofs involving congruent triangles <p>Similarity Review:</p> <ul style="list-style-type: none"> Tests for similarity (AAA) Similar triangles and scale factors 	<p><i>Biological Sciences - Foundations of Life and Chemistry</i></p> <p>1. Cells</p> <ul style="list-style-type: none"> - Structure and function of plant and animal cells - Cell organelles and their roles - Microscopy techniques and cell observation - Cell theory and its historical development <p>2. Body Systems</p> <ul style="list-style-type: none"> - Overview of major body systems (circulatory, respiratory, digestive, excretory, nervous, and skeletal) - Interaction between body systems - Homeostasis and regulation of body functions - Introduction to the immune system and body defense mechanisms

	<p>Lady, or the Tiger?" by Frank R. Stockton</p>	<p>Applications of similarity (shadow problems, etc.) Coordinate Geometry Review: Plotting points Distance formula Midpoint formula Gradient of a line Further Coordinate Geometry: Equation of a straight line ($y = mx + c$) Parallel and perpendicular lines Linear inequalities and graphing regions</p>	<p>3. Elements and Compounds - Basic concepts of elements, compounds, and mixtures - Atomic structure and periodic table introduction - Chemical bonds and reactions (basic types)</p>
Grade 8 Term 2	<p><i>How Context Changes Representation</i> - Core Theme: War Poetry - Context Exploration: Different perspectives on war, from patriotism to trauma. - Poetry Study: - "Dulce et Decorum Est" by Wilfred Owen - "The Soldier" by Rupert Brooke - "In Flanders Fields" by John McCrae - Creative Writing 2: Crafting powerful imagery and descriptive language, focusing on mood and</p>	<p>Number and Algebra Algebra Revision: Expanding and simplifying expressions with more than one variable Solving more complex linear equations and inequalities Further Factorisation: Factorising trinomials (including those with a coefficient other than 1 for the x^2 term) Difference of two squares Perfect square trinomials Solving Quadratic Equations: Solving by factorisation Introduction to the quadratic formula Graphing Quadratics:</p>	<p><i>Biological and Earth Sciences - Growth and Earth's Resources</i></p> <p>1. Growth and Reproduction - Cell division: Mitosis and meiosis - Asexual vs. sexual reproduction in plants and animals - Human reproductive system and puberty - Introduction to genetics and heredity</p> <p>2. Earth and Space Sciences - Earth's structure: layers and</p>

	<p>tone.</p> <ul style="list-style-type: none"> - Creative Task: Write a poem inspired by war poetry, capturing either the trauma or heroism of war. - Additional Short Story: "An Occurrence at Owl Creek Bridge" by Ambrose Bierce 	<p>Recognizing the shape of a parabola Finding the vertex and axis of symmetry Sketching parabolas Rearranging Formulas: Changing the subject of a formula Probability Revision: Basic probability concepts Calculating probabilities of events Tree diagrams</p>	<p>composition</p> <ul style="list-style-type: none"> - Tectonic plates, earthquakes, and volcanoes - Overview of our solar system and galaxy - Moon phases, eclipses, and Earth's movements <p>3. Minerals, Rocks, and Ores</p> <ul style="list-style-type: none"> - Types of rocks and rock cycle - Identification of minerals - Formation of ores and extraction methods - Environmental impact of mining and resource usage - Sustainable practices in mineral and ore extraction
Grade 8 Term 3	<p><i>Time-Transcending Texts</i></p> <ul style="list-style-type: none"> - Core Text: Prose Exploration – To Kill a Mockingbird by Harper Lee - Context Exploration: Historical background of the American South in the 1930s. - Themes: Justice, racism, and empathy. - Poetry Study: - "I Hear America Singing" by Walt Whitman 	<p>Number and Algebra</p> <p>Indices: Fractional indices Solving equations involving indices</p> <p>Inequalities: Solving quadratic inequalities Graphing inequalities on a number line</p> <p>Measurement and Geometry</p> <p>Trigonometry: Introduction to trigonometric ratios (sine, cosine, tangent) Using trigonometric ratios to find sides</p>	<p><i>Physical Sciences - Understanding Forces and Energy</i></p> <p>1. Physical Sciences: Matter and Its Properties</p> <ul style="list-style-type: none"> - States of matter and phase changes - Introduction to density and buoyancy - Physical vs. chemical properties

	<ul style="list-style-type: none"> - "Still I Rise" by Maya Angelou - Discursive Writing 2: Writing balanced arguments with focus on cultural and social issues. - Additional Short Story: "The Necklace" by Guy de Maupassant 	<p>and angles in right-angled triangles</p> <p>Further Trigonometry: Applications of trigonometry (angles of elevation and depression, bearings) The unit circle and trigonometric values for angles greater than 90 degrees</p> <p>Trigonometry Problem Solving: Solving real-world problems using trigonometry</p> <p>Statistics and Probability</p> <p>Depreciation: Straight-line depreciation Reducing balance depreciation</p>	<ul style="list-style-type: none"> - Conservation of mass and introduction to energy conservation <p>2. Energy</p> <ul style="list-style-type: none"> - Types of energy (kinetic, potential, thermal, chemical, etc.) - Energy transformations and conservation - Renewable vs. non-renewable energy sources - Introduction to heat, light, and sound
Grade 8 Term 4	<p><i>How Context Shapes Perspective</i></p> <ul style="list-style-type: none"> - Core Focus: Newspapers and Memoirs - Context Exploration: The impact of first-person narratives and factual representation in media. - Core Text: Memoir excerpts from I Am Malala by Malala Yousafzai or The Diary of Anne Frank - Multimodal Writing 2: Combining visual and textual elements to create meaning, 	<p>Number and Algebra</p> <p>Factorisation Revision: Review of all factorisation techniques</p> <p>Solving Quadratic Problems: Applying quadratic equations to real-world problems</p> <p>Completing the Square and Quadratic Formula: Completing the square Deriving and using the quadratic formula</p> <p>Further Graphing Quadratics: The effect of 'a', 'b', and 'c' on the graph of $y = ax^2 + bx + c$</p>	<p><i>Earth Sciences and Scientific Skills - Advanced Topics and Inquiry</i></p> <p>1. Advanced Rocks and Minerals</p> <ul style="list-style-type: none"> - Sedimentary, metamorphic, and igneous rocks in detail - Fossils and the history of Earth's changes - The carbon cycle and its significance in ecosystems <p>2. Skills in Science</p> <ul style="list-style-type: none"> - Scientific method and

	<p>focusing on journalistic and personal reflections.</p> <ul style="list-style-type: none"> - Poetry Study: <ul style="list-style-type: none"> - "The Road Not Taken" by Robert Frost - "Hope is the Thing with Feathers" by Emily Dickinson - Additional Short Story: "The Yellow Wallpaper" by Charlotte Perkins Gilman 	<p>Finding the equation of a parabola from its graph</p> <p>Rates and Proportionality:</p> <ul style="list-style-type: none"> Direct and inverse proportion Rates of change Applications of rates and proportionality <p>Surds Revision and Problem Solving:</p> <ul style="list-style-type: none"> Simplifying surds Rationalising the denominator Solving problems involving surds <p>Geometry:</p> <ul style="list-style-type: none"> Circle Geometry (angle properties, chord properties, tangent properties) Geometric constructions (using compass and straightedge) Volume and surface area of 3D shapes (prisms, cylinders, pyramids, cones, spheres) 	<p>experimental design</p> <ul style="list-style-type: none"> - Data analysis, graphing, and interpretation - Building hypotheses and making predictions - Critical thinking and evaluating scientific information <p>3. Investigations and Problem Solving</p> <ul style="list-style-type: none"> - Conducting investigations: planning and safety - Identifying variables and designing fair tests - Communicating scientific findings
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