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2026 ANNUAL TEACHING PLANS: ENGLISH MATHEMATICS: GRADE 8 (TERM 1)

TERM 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11
HOURS PER TOPIC	7		9		9		2	4,5	9		7
TOPICS, CONCEPTS AND SKILLS	**WHOLE NUMBERS** **Properties of whole numbers** • Revise: — The commutative; associative; distributive properties of whole numbers — 0 in terms of its additive property (identity element for addition) — 1 in terms of its multiplicative property (identity element for multiplication) • Recognize the division property of 0, whereby any number divided by 0 is undefined **Multiples and factors** • Revise: — Prime factors of numbers to at least		**INTEGERS** **Calculations with integers** • Revise addition and subtraction with integers • Multiply and divide with integers • Perform calculations involving all four operations with integers • Perform calculations involving all four operations with numbers that involve squares, cubes, square roots and cube roots of integers **Properties of integers** • Recognise and use commutative, associative and distributive properties of addition and multiplication for integers • Recognise and use additive and		**COMMON FRACTIONS** Calculations with fractions • Divide whole numbers and common fractions by common fractions • Calculate the squares, cubes, square roots and cube roots of common fractions **Calculation techniques** • Use knowledge of reciprocal relationships to divide common fractions **Percentage** • Calculate amounts if given percentage increase or decrease • Solve problems in contexts involving percentages Solving problems	**FORMAL ASSESSMENT TASK** **ASSIGNMENT:** • **Whole numbers** • **Integers** • **Common fractions**	**DECIMAL FRACTIONS** Calculations with decimal fractions • Multiplication of decimal fractions by decimal fractions not limited to one decimal place • Division of decimal fractions by decimal fractions • Calculate the squares, cubes, square roots and cube roots of decimal fractions Calculation techniques • Use knowledge of place value to estimate the number of decimal places in the result before performing calculations • Use rounding off and a calculator to check results where appropriate	**NUMERIC AND GEOMETRIC PATTERNS** Investigate and extend patterns • Revise: investigate and extend numeric and geometric patterns looking for relationships between numbers, including patterns: — Represented in physical or diagram form — Not limited to sequences involving a constant difference or ratio — Of learner's own creation — Represented in tables • Extend investigate and extend numeric and geometric patterns looking for relationships between numbers, including	**REVISION** **FORMAL ASSESSMENT TASK** **TEST: all topics**

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	3-digit whole numbers — LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation **Solving problems** • Solve problems involving whole numbers, including — comparing two or more quantities of the same kind (ratio) — comparing two quantities of different kinds (rate) — sharing in a given ratio where the whole is given — increasing or decreasing of a number in a given ratio • Solve problems that involve whole numbers, percentages and decimal fractions in financial contexts such as:	multiplicative inverses for integers **Solving problems** • Solve problems in contexts involving multiple operations with integers	• Solve problems in contexts involving common fractions and mixed numbers, including grouping, sharing and finding fractions of whole numbers		**Solving problems** • Solve problems in context involving decimal fractions	patterns represented algebraically • Describe and justify the general rules for observed relationships between numbers in own words or in algebraic language	

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	— profit, loss, discount and VAT — budgets — accounts — loans — simple interest — hire purchase — exchange rates						
PREREQUISITE SKILL OR PRE-KNOWLEDGE	• Multiplication of whole numbers to at least 12 × 12 • Order and compare prime numbers to at least 100 • Calculations using all four operations on whole numbers, estimating and using calculators where appropriate • Prime factors of numbers to at least 3-digit whole numbers • LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	• Count forwards and backwards in integers for any interval • Recognise, order and compare integers • Add and subtract with integers • Recognise and use commutative and associative properties of addition and multiplication for integers • Solve problems in contexts involving addition and subtraction of integers	• Addition and subtraction of fractions • Multiplication of common fractions, including mixed numbers • Converting mixed numbers to common fractions • Simplify fractions before or after calculations • Calculate the percentage of part of a whole • Calculate percentage increase or decrease of whole numbers		• Count forwards and backwards in decimals • Compare and order decimal fractions • Rounding off decimal fractions • Addition and subtraction of decimal fractions • Multiplication of decimal fractions by whole numbers and decimals • Division of decimal fractions by whole numbers • estimate the number of decimal places in the result before performing calculations	• Investigate and extend numeric and geometric patterns • Describe and justify the general rules for observed relationships between numbers in own words	

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2026 ANNUAL TEACHING PLANS: ENGLISH MATHEMATICS: GRADE 8 (TERM 2)

TERM 2	2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12
HOURS PER TOPIC		9			13,5		9			4,5	6	7	
TOPICS, CONCEPTS AND SKILLS	FORMAL ASSESSMENT TASK INVESTIGATION Note: Administer an investigation on any ONE of the Term 2 topics before teaching it	**EXPONENTS** • Comparing and representing numbers in exponential form • Revise compare and represent whole numbers in exponential form • Compare and represent integers in exponential form • Compare and represent numbers in scientific notation, limited to positive exponents • Calculations using numbers in exponential form • Establish general laws of exponents, limited to: • $a^m \times a^n = a^{m+n}$ • $a^m \div a^n = a^{m-n}$ • $(a^m)^n = a^{m \times n}$ • $(a \times t)^n = a^n \times t^n$			**ALGEBRAIC EXPRESSIONS** **Algebraic language** • Recognize and interpret rules or relationships represented in symbolic form • Identify variables and constants in given formulae and/or equations • Recognize and identify conventions for writing algebraic expressions • Identify and classify like and unlike terms in algebraic expressions • Recognize and identify coefficients and exponents in algebraic expressions **Expand and simplify algebraic expressions** Use commutative, associative and distributive laws for rational numbers and laws of exponents to:		**ALGEBRAIC EQUATIONS** **Equations** • Set up equations to describe problem situations • Analyse and interpret equations that describe a given situation • Solve equations by inspection • Determine the numerical value of an equation by substitution. • Identify variables and constants in given formulae or equations • Use substitution in equations to generate tables of ordered pairs • Extend solving equations to include: — using additive and multiplicative inverses — using laws of exponents		**FUNCTIONS AND RELATIONSHIPS** Input and output values • Revise: determine input values, output values or rules for patterns and relationships using: — Flow diagrams — Tables — Formulae • Extend: determine input values, output values or rules for patterns and relationships using equations **Equivalent forms** • Revise: determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: — Verbally	**GRAPHS** **Interpreting graphs** • Analyse and interpret global graphs of problem situations, with a special focus on the following trends and features: — linear or non-linear — constant, increasing or decreasing • Extend the focus on features of graphs to include: — maximum or minimum — discrete or continuous **Drawing graphs** • Draw global graphs from given descriptions of a problem situation, identifying features listed above	REVISION FORMAL ASSESSMENT TASK **TEST** All Term 1 & 2 topics	

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		• $a^0 = 1$ • Recognise and use the appropriate laws of operations using numbers involving exponents and square and cube roots • Perform calculations involving all four operations with numbers that involve squares, cubes, square and cube roots of integers • Calculate the squares, cubes, square and cube roots of rational numbers **Solving problems** • Solve problems in contexts involving numbers in exponential form	• add and subtract like terms in algebraic expressions • multiply integers and monomials by: — monomials — binomials — trinomials • divide the following by integers or monomials: — Monomials — Binomials — trinomials • simplify algebraic expressions involving the above operations • Determine the squares, cubes, square roots and cube roots of single algebraic terms or like algebraic terms Determine the numerical value of algebraic expressions by substitution		— In flow diagrams — In tables — By formulae — By number sentences • Extend: determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented by equations	Use tables or ordered pairs to plot points and draw graphs on the Cartesian plane	
PREREQUISITE SKILL OR PRE-KNOWLEDGE		• Compare and represent whole numbers in exponential form: $a^b = a \times a \times a \times \ldots$ for b number of factors • Recognise and use the appropriate laws of operations with numbers involving exponents and square and cube roots	• Recognise and interpret rules or relationships represented in symbolic form Identify variables and constants in given formulae and/or equations	• Write number sentences to describe problem situations • Analyse and interpret number sentences that describe a given situation • Solve and complete number sentences by	• Determine input values, output values or rules for patterns and relationships using flow diagrams, tables and formulae	• Set up equations to describe problem situations	

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		• Perform calculations involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots • Solve problems in contexts involving numbers in exponential form		nspection, trial and improvement • Determine the numerical value of an expression by substitution Identify variables and constants in given formulae or equations	Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented verbally, in flow diagrams, in tables by formulae and by number sentences		

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2026 ANNUAL TEACHING PLANS: ENGLISH MATHEMATICS: GRADE 8 (TERM 3)

TERM 3		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
HOURS PER TOPIC		11,5			9		9		12		
TOPICS, CONCEPTS AND SKILLS	FORMAL ASSESSMENT TASK PROJECT Note: The project must cover a combination of topics from Term 1 to 3 and must be completed before the end of Term 3	**DATA HANDLING** **Collect data** • Pose questions relating to social, economic, and environmental issues • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations, and suggest appropriate samples for investigation • Design and use simple questionnaires to answer questions with multiple choice responses **Organize and summarize data** • Organize (including grouping where appropriate) and record data using — tally marks — tables — stem-and-leaf displays • Group data into intervals • Summarize data using measures of central tendency, including: — mean		**GEOMETRY OF STRAIGHT LINES** **Angle relationships** • Recognise and describe pairs of angles formed by: — Perpendicular lines — Intersecting lines — parallel lines cut by a transversal **Solving problems** • Solve geometric problems using the relationships between pairs of angles described above		**GEOMETRY OF 2D SHAPES** **Classifying 2D shapes** • Identify and write clear definitions of triangles in terms of their sides and angles, distinguishing between: — equilateral triangles — isosceles triangles — right-angled triangles **Constructions** **PROVIDE LEARNERS WITH ACCURATELY CONSTRUCTED FIGURES TO INVESTIGATE THE PROPERTIES OF TRIANGLES** Investigating properties of geometric figures • Investigate the angles in a triangle, focusing on: — The sum of the interior angles of triangles — The size of angles in an equilateral triangle — The sides and base angles of an isosceles triangle		REVISION FORMAL ASSESSMENT TASK TEST All Term 3 topics		

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		— median — mode • Summarize data using measures of dispersion, including: — range — -extremes **PROBABILITY** • Consider a simple situation (with equally likely • outcomes) that can be described using probability and: — list all the possible outcomes — determine the probability of each possible outcome using the definition of probability — predict with reasons the relative frequency of the possible outcomes for a series of trials based on probability compare relative frequency with probability and explain possible differences		**Classifying 2D shapes** • Identify and write clear definitions of quadrilaterals in terms of their sides and angles, distinguishing between: — parallelogram — rectangle — square — rhombus — trapezium — kite **Constructions** **PROVIDE LEARNERS WITH ACCURATELY CONSTRUCTED FIGURES TO INVESTIGATE THE PROPERTIES OF QUADRILATERALS** Investigating properties of geometric figures • Investigate sides and angles in quadrilaterals, focusing on: — The sum of the interior angles of quadrilaterals — The sides and opposite angles of parallelograms **Solving problems** • Solve geometric problems involving unknown sides and angles in triangles and	

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				quadrilaterals, using known properties and definitions **Similar and congruent 2D shapes** • Identify and describe the properties of congruent shapes • Identify and describe the properties of similar shapes **Solving problems** Solve geometric problems involving unknown sides and angles in triangles and quadrilaterals, using known properties and definitions.	
PREREQUISITE SKILL OR PRE-KNOWLEDGE		• Critically read and interpret data represented in: words — bar graphs — double bar graphs — pie charts — histograms • Critically analyse data by answering questions related to: — data categories, including data intervals — data sources and contexts — central tendencies (mean, mode, median) — scales used on graphs • Summarize data in short paragraphs that include drawing conclusions about the data	• Definitions of: — Line segment — Ray — Straight lines — Parallel lines Perpendicular lines	• Describe, sort, name and compare triangles according to their sides and angles, focusing on: — Equilateral triangles — Isosceles triangles — Right-angled triangles • Describe, sort, name and compare quadrilaterals in terms of: — Length of sides — Parallel and perpendicular sides — Size of angles (right-angles or not) • Describe and name parts of a circle	

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		making predictions based on the data • identifying sources of error and bias in the data • choosing appropriate summary statistics for the data (mean, median, mode) • Perform simple experiments where the possible outcomes are equally likely and: — list the possible outcomes based on — the conditions of the activity — determine the probability of each possible outcome using the definition of probability		• Recognise and describe similar and congruent figures by comparing: — Shape — Size	

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TERM 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
HOURS PER TOPIC	9		4,5		8		4,5			
TOPICS, CONCEPTS AND SKILLS	**THEOREM OF PYTHAGORAS** **Develop and use the Theorem of Pythagoras** • Investigate the relationship between the lengths of the sides of a right-angled triangle to develop the Theorem of Pythagoras • Determine whether a triangle is right-angled triangle or not if the lengths of the three sides of the triangle is known • Use the Theorem of Pythagoras to calculate the missing length in a right-angled triangle, leaving irrational answers in surd form		**TRANSFORMATION GEOMETRY** **Transformations** • Recognize, describe and perform transformations with points, line segments and simple geometric figures on a co-ordinate plane, focusing on: — reflection in the x-axis or y- axis — translation within and across quadrants — reflection in the line $y = x$ — rotation around a given point • Identify what the transformation of a point is, if given the co-ordinates of its image **Enlargements and reductions** • Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures Investigate the co-ordinates of the vertices of figures that have been		**AREA AND PERIMETER OF 2-D SHAPES** **Area and perimeter** • Use appropriate formulae to calculate perimeter and area of: circles • Calculate the areas of polygons, to at least 2 decimal places, by decomposing them into rectangles and/or triangles • Use and describe the relationship between the radius, diameter and circumference of a circle in calculations • Use and describe the relationship between the radius and area of a circle in calculations **Calculations and solving problems** • Solve problems, with or without a calculator, involving perimeter and area of polygons and circles to at least 2 decimal places • Use and describe the meaning of the irrational number Pi (π) in calculations involving circles		**SURFACE AREA AND VOLUME OF 3-D OBJECTS** Surface area and volume • Revise: Use appropriate formulae to calculate the surface area, volume and capacity of: — cubes — rectangular prisms • Describe the interrelationship between surface area and volume of the objects mentioned above • Extend: Use appropriate formulae to calculate the surface area, volume and capacity of triangular prisms **Calculations and solving problems** • Solve problems, with or without a calculator involving surface area, volume and capacity • Use and convert between appropriate SI units, including: — mm2 ↔ cm2 ↔ m2 ↔ km2 — mm3 ↔ *cm*3 ↔ *m*3		**REVISION** **FORMAL ASSESSMENT TASK** **TEST: Term 1-4 topics**	

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		enlarged or reduced by a given scale factor	• Use and convert between appropriate SI units, including: $mm^2 \leftrightarrow cm^2 \leftrightarrow m^2 \leftrightarrow km^2$	— *ml* (*cm*3) ↔ *l* ↔ *kl*	
PREREQUISITE SKILL OR PRE-KNOWLEDGE	• Recognize, describe and perform translations, reflections and rotations with geometric figures and shapes on squared paper • Identify and draw lines of symmetry in geometric figures Enlargements and reductions • Draw enlargements and reductions of geometric figures on squared paper and compare them in terms of shape and size	Area and perimeter • Calculate the perimeter of regular and irregular polygons • Use appropriate formulae to calculate perimeter and area of: — squares — rectangles — triangles **Calculations and solving problems** • Solve problems involving perimeter and area of polygons • Calculate to at least 1 decimal place • Use and convert between appropriate SI units, including: — *mm2* ↔ *cm2* — $cm^2 \leftrightarrow m^2$	Iidentify and describe right angled triangles Squares and square roots of whole numbers	Surface area and volume • Use appropriate formulae to calculate the surface area, volume and capacity of: — *cubes* — *rectangular* prisms • Describe the interrelationship between surface area and volume of the objects mentioned above **Calculations and solving problems** • Solve problems involving surface area, volume and capacity • Use and convert between appropriate SI units, including: — $mm^2 \leftrightarrow cm^2$ — $cm^2 \leftrightarrow m^2$ — $mm^3 \leftrightarrow cm^3$ — $cm^3 \leftrightarrow m^3$ • Use equivalence between units when solving problems: — *1 cm3* ↔ *1 ml* — *1* m^3 ↔ *1 kl*	