



CAMI Education linked to CAPS: Mathematics

Grade 8 CAPS curriculum		
TERM 1		
TOPIC	CONTENT	CAMI Keys
1.1 Whole numbers	<p>Mental calculations Revise:</p> <ul style="list-style-type: none">• Multiplication of whole numbers to at least 12×12 <p>Ordering and comparing whole numbers Revise prime numbers to at least 100</p> <p>Properties of whole numbers Revise:</p> <ul style="list-style-type: none">• The commutative, associative and distributive properties of whole numbers• 0 in terms of its additive property (identity element for multiplication)• 1 in terms of its multiplicative property (identity element for multiplication)• Recognize the division property of 0, where any number divided by 0 is undefined. <p>Calculations using whole numbers Revise:</p> <ul style="list-style-type: none">• Calculations using all four operations on whole numbers, estimating and using calculators where appropriate <p>Calculation techniques</p> <ul style="list-style-type: none">• Use a range of strategies to perform and check written and mental calculations with whole numbers including:<ul style="list-style-type: none">❖ Estimation❖ Adding, subtracting and multiplying in columns	<p>4.4.1 4.4.2</p> <p>1.7.5.4 1.7.5.6 1.7.5.8</p> <p>1.7.1.7</p>



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	<ul style="list-style-type: none"> ❖ Long division ❖ Rounding off and compensating ❖ Using a calculator <p>Multiples and factors</p> <p>Revise:</p> <ul style="list-style-type: none"> • 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 factorization <p>Solving problems</p> <ul style="list-style-type: none"> • Solve problems involving whole numbers, including: <ul style="list-style-type: none"> ❖ 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: <ul style="list-style-type: none"> ❖ Profit, loss, discount and VAT ❖ Budgets ❖ Accounts ❖ Loans ❖ Simple interest ❖ Hire purchase ❖ Exchange rate 	<p>1.8.1.2</p> <p>1.8.1.4</p> <p>1.8.1.5</p> <p>1.8.1.6</p> <p>1.8.1.7</p> <p>1.8.1.8</p> <p>1.8.2.4</p> <p>1.8.2.5</p> <p>4.7.1.3</p> <p>4.7.2.1</p> <p>4.7.2.2</p> <p>4.7.2.3</p> <p>9.7.2</p> <p>3.8.7.3</p> <p>3.8.7.4</p> <p>2.6.1.1</p> <p>2.6.1.2</p> <p>2.6.1.3</p> <p>2.6.1.4</p> <p>2.6.1.5</p> <p>10.7.1.1</p> <p>10.7.1.2</p> <p>10.6.2.5</p> <p>3.8.4.8</p> <p>3.8.4.9</p>
<p>1.3 Integers</p>	<p>Counting, ordering and comparing integers</p> <p>Revise:</p>	<p>2.2.2.4</p> <p>2.2.2.5</p> <p>2.2.2.6</p>



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	<ul style="list-style-type: none">❖ Counting backwards and forwards in integers for any interval❖ Recognizing, ordering and comparing integers	2.2.2.7 2.2.2.8 2.5.1.1 2.5.1.2 2.5.1.3
	Calculations with integers	2.5.1.4
	<ul style="list-style-type: none">❖ 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 the squares, cubes, square roots and cube roots of integers	2.5.1.5 2.5.1.6 2.5.2.1 2.5.2.2 2.5.2.3 2.5.2.4 2.5.3.1 2.5.3.2 2.5.3.3 2.5.3.4 2.5.3.5
	Properties of integers	
	<ul style="list-style-type: none">• Recognize and use commutative, associative and distributive properties of addition and multiplication for integers• Recognize and use additive and multiplicative inverses for integers	2.2.3.5 2.2.3.7 2.2.3.10 2.2.4.1 2.2.4.2 2.2.4.3 2.2.4.4
	Solving problems	2.2.4.4
	<ul style="list-style-type: none">• Solve problems in contexts involving multiple operations with integers	2.2.5.10 2.2.5.5 2.2.5.6 2.5.5.1 2.5.5.2 2.2.5.7 2.2.5.8 2.2.5.9 2.2.6.1 2.2.6.2 2.2.6.3 2.2.6.4 2.2.6.5 2.2.6.6 3.8.1.10 2.5.4.3



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		2.5.4.4
1.2 Exponents	<p>Mental calculations Revise:</p> <ul style="list-style-type: none"> • Squares to at least 12^2 and their square roots • Cubes to at least 6^3 and their cube roots <p>Comparing and representing numbers in exponential form Revise:</p> <ul style="list-style-type: none"> • 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 <p>Calculations using numbers in exponential form</p> <ul style="list-style-type: none"> • Establish general laws of exponents limited to Natural exponents: <ul style="list-style-type: none"> ❖ $a^m \times a^n = a^{m+n}$ ❖ $a^m \div a^n = a^{m-n}; m > n$ ❖ $(a^m)^n = a^{mn}$ ❖ $(a \times t)^n = a^n \times t^n$ ❖ $a^0 = 1$ • Recognize 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 roots and cube roots of integers • Calculate the squares, cubes, square roots and cube roots of rational numbers 	<p>1.8.5.1 1.8.5.2 1.8.5.3 1.8.5.4 1.8.5.6 1.8.5.7</p> <p>1.8.4.1 4.3.1.1 4.3.1.2 4.3.1.3 4.3.1.4 4.3.1.5 4.3.1.6 4.3.1.7 4.4.2.1 4.4.2.2</p> <p>1.8.3.1 1.8.3.2 1.8.3.3 1.8.3.7 1.8.3.6</p>



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	Solving problems <ul style="list-style-type: none">• Solve problems in contexts involving numbers in exponential form	
2.1 Numeric and geometric patterns	Investigate and extend patterns <ul style="list-style-type: none">• Investigate and extend numeric and geometric patterns looking for relationships between numbers, including patterns:<ul style="list-style-type: none">❖ Represented in physical or diagram form❖ Not limited to sequences involving a constant difference or ratio❖ Of learner's own creation❖ Represented in tables❖ Represented algebraically• Describe and justify the general rules for observed relationships between numbers in own words or in algebraic language	4.1.2.10 4.1.2.8 4.1.2.9 4.1.4.4 4.1.1.8
2.2 Functions and relationships	Input and output values <ul style="list-style-type: none">• Determine input values, output values or rules for patterns and relationships using:<ul style="list-style-type: none">❖ Flow diagrams❖ Tables❖ Formulae❖ Equations Equivalent forms <ul style="list-style-type: none">• Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented:<ul style="list-style-type: none">❖ Verbally❖ In flow diagrams❖ In tables❖ By formulae	3.2.6.4 3.2.6.5 3.2.6.6 4.1.3.5 4.1.3.6 3.2.5.5



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	❖ By equations	
2.3 Algebraic expressions	<p>Algebraic language</p> <ul style="list-style-type: none"> • Revise the following done in Grade 7: <ul style="list-style-type: none"> ❖ Recognize and interpret rules or relationships represented in symbolic form ❖ Identify variables and constants in given formulae and 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 <p>Expand and simplify algebraic expressions Use commutative, associative and distributive laws for rational numbers and laws of exponents to:</p> <ul style="list-style-type: none"> • Add and subtract like terms in algebraic expressions • 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 	<p>3.2.7.1 3.2.7.2 3.2.7.3 3.2.7.4 4.1.2.4 4.1.3.1 4.1.3.2 4.1.3.3 4.1.3.4 4.1.3.7 4.1.3.8 4.1.8.5 4.1.3.4 4.1.8.1 4.1.8.2 4.1.8.3 4.1.8.4 4.1.8.5 4.1.8.6 4.1.8.7 4.1.8.8 4.1.9.1 4.1.9.2 4.1.9.6 4.1.9.7 4.1.10.1 4.1.10.2 4.1.10.4 4.1.10.5 4.4.3.1 4.4.3.2 4.4.3.3 4.6.5.1 4.6.5.2 4.6.6.1 4.6.6.2</p>



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2.4 Algebraic equations	Equations <ul style="list-style-type: none">• Revise the following done in Grade 7:<ul style="list-style-type: none">❖ Set up equations to describe problem situations❖ Analyze and interpret equations that describe a given situation❖ Solve equations by inspection❖ Determine the numerical value of an expression by substitution❖ Identify variables and constants in given equations• Extend solving equations to include:<ul style="list-style-type: none">❖ Using additive and multiplicative inverses❖ Using laws of exponents• Use substitution in equations to generate tables of ordered pairs	3.5.7.2 3.8.1.10 4.2.1.1 4.2.1.2 4.2.2.1 4.2.2.2
TERM 2		
2.3 Algebraic expressions	Algebraic language <ul style="list-style-type: none">• Revise the following done in Grade 7:<ul style="list-style-type: none">❖ Recognize and interpret rules or relationships represented in symbolic form❖ Identify variables and constants in given formulae and 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	3.2.7.1 3.2.7.2 3.2.7.3 3.2.7.4 4.1.2.4 4.1.3.1 4.1.3.2 4.1.3.3 4.1.3.4 4.1.3.7 4.1.3.8 4.1.8.1 4.1.8.2



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	<p>Expand and simplify algebraic expressions Use commutative, associative and distributive laws for rational numbers and laws of exponents to:</p> <ul style="list-style-type: none"> • Add and subtract like terms in algebraic expressions • Multiply integers and monomials by: <ul style="list-style-type: none"> ❖ Monomials ❖ Binomials ❖ Trinomials • Divide the following by integers or monomials: <ul style="list-style-type: none"> ❖ 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 	<p>4.1.8.3 4.1.8.4 4.1.8.5 4.1.8.6 4.1.8.7 4.1.8.8 4.1.9.1 4.1.9.2 4.1.9.6 4.1.9.7 4.1.10.1 4.1.10.2 4.1.10.4 4.1.10.5 4.4.3.1 4.4.3.2 4.4.3.3 4.6.5.1 4.6.5.2 4.6.6.1 4.6.6.2</p>
<p>2.4 Algebraic equations</p>	<p>Equations</p> <ul style="list-style-type: none"> • Revise the following done in Grade 7: <ul style="list-style-type: none"> ❖ Set up equations to describe problem situations ❖ Analyze and interpret equations that describe a given situation ❖ Solve equations by inspection ❖ Determine the numerical value of an expression by substitution ❖ Identify variables and constants in given equations 	<p>3.5.7.2 3.8.1.10 4.2.1.1 4.2.1.2 4.2.2.1 4.2.2.2</p>



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	<ul style="list-style-type: none">• Extend solving equations to include:<ul style="list-style-type: none">❖ Using additive and multiplicative inverses❖ Using laws of exponents• Use substitution in equations to generate tables of ordered pairs	
3.5 Construction of geometric figures	<p>Constructions</p> <ul style="list-style-type: none">• Accurately construct geometric figures appropriately using a compass, ruler and protractor, including:<ul style="list-style-type: none">❖ Bisecting lines and angles❖ Perpendicular lines at a given point of from a given point❖ Triangles❖ Quadrilaterals• Construct angles of 30°, 45° and 60° and their multiples without using a protractor <p>Investigate properties of geometric figures</p> <ul style="list-style-type: none">• By construction, investigate the angles in a triangle, focusing on:<ul style="list-style-type: none">❖ 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• By construction, investigate sides and angles in quadrilaterals, focusing on:<ul style="list-style-type: none">❖ The sum of the interior angles of quadrilaterals❖ The sides and opposite angles of parallelograms	8.1.6.1 8.1.6.2 8.1.6.3 8.1.6.4
3.1 Geometry of	<p>Classifying 2D shapes</p> <ul style="list-style-type: none">• Identify and write clear definitions	



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<p>2D shapes</p>	<p>of triangles in terms of their sides and angles, distinguishing between:</p> <ul style="list-style-type: none"> ❖ Equilateral triangles ❖ Isosceles triangles ❖ Right-angled triangles <ul style="list-style-type: none"> • Identify and write clear definitions of quadrilaterals in terms of their sides and angles, distinguishing between: <ul style="list-style-type: none"> ❖ Parallelogram ❖ Rectangle ❖ Square ❖ Rhombus ❖ Trapezium ❖ Kite <p>Similar and congruent 2D shapes</p> <ul style="list-style-type: none"> • Identify and describe the properties of congruent shapes • Identify and describe the properties of similar shapes <p>Solving problems</p> <ul style="list-style-type: none"> • Solve geometric problems involving unknown sides and angles in triangles and quadrilaterals, using known properties and definitions 	<p>8.3.1.1 8.3.1.2 8.3.1.3 8.3.2.1 8.3.2.2 8.3.3.1 8.3.3.2 8.3.4.1 8.3.4.2 8.4.1.1 8.4.1.2 8.4.2.1 8.4.3.1 8.3.7.1 8.3.5.2</p>
<p>3.3 Geometry of straight lines</p>	<p>Angle relationships Recognize and describe pairs of angles formed by:</p> <ul style="list-style-type: none"> • Perpendicular lines • Intersecting lines • Parallel lines cut by a transversal <p>Solving problems Solve geometric problems using the relationships between pairs of angles described above.</p>	<p>8.2.1.1 8.2.1.2 8.2.2.1 8.2.2.2 8.2.3.1 8.2.3.2 8.2.4.1 8.2.4.2 8.2.5.1 8.2.5.2 8.10.2.4</p>



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TERM 3		
1.4 Common fractions	Calculations using fractions <ul style="list-style-type: none">• Revise:<ul style="list-style-type: none">❖ Addition and subtraction of common fractions, including mixed numbers❖ Finding fractions of whole numbers❖ Multiplication of common fractions, including mixed numbers• Divide whole numbers and common fractions by common fractions• Calculate the squares, cubes, square roots and cube roots of common fractions Calculation techniques <ul style="list-style-type: none">• Revise:<ul style="list-style-type: none">❖ Convert mixed numbers to common fractions in order to perform calculations with them❖ Use knowledge of multiples and factors to write fractions in the simplest form before or after calculations❖ Use knowledge of equivalent fractions to add and subtract common fractions• Use knowledge of reciprocal relationships to divide common fractions Solving problems <p>Solve problems in context involving common fractions and mixed numbers, including grouping, sharing and finding fractions of whole numbers.</p>	4.8.1.1 4.8.1.2 4.8.1.3 4.8.4.1 4.8.4.2 4.8.4.3 4.8.4.4 1.8.3.4 1.8.3.5 2.4.5.1 2.4.5.2 2.4.6.2



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	<p>Percentages</p> <ul style="list-style-type: none"> • Revise: <ul style="list-style-type: none"> ❖ Finding percentages of whole numbers ❖ Calculating the percentages of part of a whole ❖ Calculating percentages increase or decrease • Calculate amounts if given percentage increase or decrease • Solve problems in contexts involving percentages <p>Equivalent forms</p> <p>Revise equivalent forms between:</p> <ul style="list-style-type: none"> • Common fractions (fractions where one denominator is a multiple of the other) • Common fraction and decimal fraction forms of the same number • Common fraction, decimal fraction and percentage forms of the same number 	<p>2.4.6.1</p> <p>2.1.4.10</p>
<p>1.5 Decimal fractions</p>	<p>Ordering and comparing decimal fractions</p> <p>Revise:</p> <ul style="list-style-type: none"> • Ordering, comparing and place value of decimal fractions to at least 3 decimal p places • Rounding off decimal fractions to at least 2 decimal places <p>Calculations with decimal fractions</p> <ul style="list-style-type: none"> • Revise: <ul style="list-style-type: none"> ❖ Addition, subtraction and 	<p>2.3.1.3</p> <p>2.3.1.6</p> <p>2.3.2.3</p> <p>2.3.2.5</p> <p>2.3.3.1</p> <p>2.3.3.2</p> <p>2.3.4.3</p> <p>2.3.4.4</p> <p>2.3.4.8</p> <p>2.3.4.9</p>



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	<p>multiplication of decimal fractions to at least 3 decimal places</p> <ul style="list-style-type: none"> ❖ Division of decimal fractions by whole numbers • Extend multiplication to 'multiplication by decimal fractions' not limited to one decimal place • Extend division to 'division of decimal fractions by decimal fractions' • Calculate the squares, cubes, square roots and cube roots of decimal fractions <p>Calculation techniques</p> <ul style="list-style-type: none"> • 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 <p>Solving problems Solve problems in context involving decimal fractions</p> <p>Equivalent forms Revise equivalent forms between:</p> <ul style="list-style-type: none"> • Common fractions and decimal fraction forms of the same number • Common fraction, decimal fraction and percentage forms of the same number 	<p>2.3.5.6 2.3.6.5 2.3.6.8 2.3.7.1 2.3.7.2 2.3.6.2 2.3.7.5 2.3.9.2 2.3.9.3 2.3.9.6 3.8.5.3 2.3.10</p>
<p>4.3 The theorem of Pythagoras</p>	<p>Develop and use the Theorem of Pythagoras</p> <ul style="list-style-type: none"> • Investigate the relationship between the lengths of the sides of 	<p>7.1.1.1 7.1.1.2 7.1.1.3</p>



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	<p>a right-angled triangle to develop the Theorem of Pythagoras</p> <ul style="list-style-type: none"> • Determine whether a triangle is a right-angled triangle or not if the length of the three sides of the triangle are known • Use the Theorem of Pythagoras to calculate a missing length in a tight-angled triangle, leaving irrational answers in surd form 	<p>7.1.1.4 7.1.1.5 7.1.1.6</p>
<p>4.1 Area and perimeter of 2D shapes</p>	<p>Area and perimeter</p> <ul style="list-style-type: none"> • Use appropriate formulae to calculate perimeter and area of: <ul style="list-style-type: none"> ❖ Squares ❖ Rectangles ❖ Triangles ❖ 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 the area of a circle in calculations <p>Calculations and solving problems</p> <ul style="list-style-type: none"> • Solve problems, with or without a calculator, involving perimeter and area of polygons and circles • Calculate to at least 2 decimal places • Use and describe the meaning of the irrational number Pi(π) in calculations involving circles • Use and convert between appropriate SI units including: 	<p>9.3.2.7 9.3.3.2 9.3.3.4 9.3.4.1 9.3.4.2 9.3.4.3 9.3.4.4 9.3.4.5 9.3.4.6 9.3.5.1 9.3.5.2</p> <p>9.1.3.8</p>



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	$mm^2 \leftrightarrow cm^2 \leftrightarrow m^2 \leftrightarrow km^2$	
4.2 Surface area and volume of 3D objects	<p>Surface area and volume</p> <ul style="list-style-type: none"> Use appropriate formulae to calculate the surface area, volume and capacity of: <ul style="list-style-type: none"> ❖ Cubes ❖ Rectangular prisms ❖ Triangular prisms Describe the interrelationship between surface area and volume of the objects mentioned above <p>Calculations and solving problems</p> <ul style="list-style-type: none"> Solve problems, with or without a calculator, involving surface area, volume and capacity Use and convert between appropriate SI units, including: <p style="text-align: center;">$mm^2 \leftrightarrow cm^2 \leftrightarrow m^2 \leftrightarrow km^2$</p> <p style="text-align: center;">$mm^3 \leftrightarrow cm^3 \leftrightarrow m^3$</p> <p style="text-align: center;">$ml(cm^3) \leftrightarrow l \leftrightarrow kl$</p>	9.5.2.1 9.5.2.2 9.5.2.3 9.1.3.9 9.4.1
5.1 Collect, organize and summarize data	<p>Collect data</p> <ul style="list-style-type: none"> 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 	



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	<p>Organize and summarize data</p> <ul style="list-style-type: none"> • Organize (including grouping where appropriate) and record data using <ul style="list-style-type: none"> ❖ Tally marks ❖ Tables ❖ Stem-and-leaf displays • Group data into intervals • Summarize data using measures of central tendency, including: <ul style="list-style-type: none"> ❖ Mean ❖ Median ❖ Mode • Summarize data using measures of dispersion, including: <ul style="list-style-type: none"> ❖ Range ❖ Extremes 	<p>10.1.5.1</p> <p>10.3.1.3</p> <p>10.3.1.4</p>
<p>5.2 Represent data</p>	<p>Represent data</p> <ul style="list-style-type: none"> • Draw a variety of graphs by hand / technology to display and interpret data including: <ul style="list-style-type: none"> ❖ Bar graphs and double bar graphs ❖ Histograms with given and own intervals ❖ Pie charts ❖ Broken-line graphs 	<p>10.1.4.2</p> <p>10.1.3.1</p> <p>10.3.2.2</p> <p>10.3.2.3</p> <p>10.3.2.4</p> <p>10.1.2.6</p>
<p>5.3 Interpret, analyze and report data</p>	<p>Interpret data</p> <ul style="list-style-type: none"> • Critically read and interpret data represented in: <ul style="list-style-type: none"> ❖ Words ❖ Bar graphs ❖ Double bar graphs ❖ Pie charts ❖ Histograms ❖ Broken-lime graphs <p>Analyze data</p> <ul style="list-style-type: none"> • Critically analyze data by 	<p>10.3.2.2</p> <p>10.3.2.3</p> <p>10.3.2.4</p>



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	<p>answering questions related to:</p> <ul style="list-style-type: none"> ❖ Data categories, including data intervals ❖ Data sources and contexts ❖ Central tendencies – mean, median and mode ❖ Scales used on graphs ❖ Samples and populations ❖ Dispersion of data ❖ Error and bias in the data <p>Report data</p> <ul style="list-style-type: none"> • Summarize data in short paragraphs that include <ul style="list-style-type: none"> ❖ Drawing conclusions about the data ❖ 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) ❖ The role of extremes in the data 	
TERM 4		
<p>2.2 Functions and relationships</p>	<p>Input and output values</p> <ul style="list-style-type: none"> • Determine input values, output values or rules for patterns and relationships using: <ul style="list-style-type: none"> ❖ Flow diagrams ❖ Tables ❖ Formulae ❖ Equations <p>Equivalent forms</p> <ul style="list-style-type: none"> • Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: <ul style="list-style-type: none"> ❖ Verbally 	<p>3.2.6.4 3.2.6.5 3.2.6.6 4.1.3.5</p>



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	<ul style="list-style-type: none">❖ In flow diagrams❖ In tables❖ By formulae❖ By equations	
2.4 Algebraic equations	Equations <ul style="list-style-type: none">• Revise the following done in Grade 7:<ul style="list-style-type: none">❖ Set up equations to describe problem situations❖ Analyze and interpret equations that describe a given situation❖ Solve equations by inspection❖ Determine the numerical value of an expression by substitution❖ Identify variables and constants in given formulae or equations• Extend solving equations to include:<ul style="list-style-type: none">❖ Using additive and multiplicative inverses❖ Using laws of exponents• Use substitution in equations to generate tables of ordered pairs	3.5.7.2 3.8.1.10 4.2.1.1 4.2.1.2 4.2.2.1 4.2.2.2
2.5 Graphs	Interpreting graphs <ul style="list-style-type: none">• Revise the following done in Grade 7:<ul style="list-style-type: none">❖ Analyze and interpret global graphs of problem situations, with a special focus on the following trends and features:<ul style="list-style-type: none">- Linear or non-linear- Constant, increasing or decreasing• Extend the focus on features of graphs to include:<ul style="list-style-type: none">❖ Maximum or minimum❖ Discrete or continuous	



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	<p>Drawing graphs</p> <ul style="list-style-type: none">• Draw global graphs from given descriptions of a problem situation, identifying features listed above• Use table of ordered pairs to plot points and draw graphs on the Cartesian Plane	<p>6.1.1 6.1.2.1 6.1.2.2 6.1.2.3 6.1.5 6.1.6</p>
<p>3.4 Transformation Geometry</p>	<p>Transformations</p> <ul style="list-style-type: none">• Recognize, describe and perform transformations with points on a coordinate plane, focusing on:<ul style="list-style-type: none">❖ Reflecting a point in the Y-axis or X-axis❖ Translating a point within and across quadrants• Recognize, describe and perform transformations with triangles on a co-ordinate plane, focusing on the co-ordinates of the vertices when:<ul style="list-style-type: none">❖ Reflecting a triangle in the X-axis or Y-axis❖ Translating a triangle around the origin <p>Enlargements and reductions Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures</p>	<p>8.10.2.4 8.10.4.1 8.10.4.2</p>
<p>3.2 Geometry of 3D objects</p>	<p>Classifying 3D objects</p> <ul style="list-style-type: none">• Describe, name and compare the 5 Platonic solids in terms of the shape and number of faces, the number of vertices and the number of edges <p>Building 3D models</p> <ul style="list-style-type: none">• Revise using nets to make models of geometric solids, including:<ul style="list-style-type: none">❖ Cubes	<p>Class activity</p>



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	<ul style="list-style-type: none">❖ Prisms❖ Pyramids	
5.4 Probability	Probability <ul style="list-style-type: none">• Consider a simple situation (with equally likely outcomes) that can be described using probability and:<ul style="list-style-type: none">❖ List all the possible outcomes❖ Determine the probability of each possible outcomes 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	10.2.7 10.2.4

