

**ENGLISH MATHEMATICS \_2021 WEEKLY TEACHING PLAN \_ GRADE 8**

<b>TERM 1</b>	<b>Week 1 3 days</b>	<b>Week 2 5 days</b>	<b>Week 3 5 days</b>	<b>Week 4 5 days</b>	<b>Week 5 5 days</b>	<b>Week 6 5 days</b>	<b>Week 7 5 days</b>	<b>Week 8 5 days</b>	<b>Week 9 4 days</b>	<b>Week 10 3 days</b>		
<b>Hours per week</b>	2.5 hrs	4.5 hrs	4.5 hrs	4.5 hrs	4.5 hrs	4.5 hrs	4.5 hrs	4.5 hrs	3.5 hrs	3 hrs		
<b>Hours per topic</b>	2.5 hrs.	9 hrs.		9 hrs.		9 hrs.		2 hrs	2.5 hrs	1.5 hrs.	2 hrs	3 hrs.
<b>Topic, concepts, skills and values</b>	<b>REVISION OF GRADE 7 WORK</b>	<b>WHOLE NUMBERS</b>		<b>INTEGERS</b>		<b>COMMON FRACTIONS</b>		<b>INFORMAL ASSESMENT TASK</b>	<b>DECIMAL FRACTIONS</b>		<b>FORMAL ASSESMENT TASK</b>	
		<p><b>Calculations using whole numbers</b>  <b>Revise:</b></p> <ul style="list-style-type: none"> <li>Calculations using all four operations on whole numbers, estimating and using calculators where appropriate</li> </ul> <p><b>Calculation techniques</b></p> <ul style="list-style-type: none"> <li>Use a range of strategies to perform and check written and mental calculations with whole numbers including:                             <ul style="list-style-type: none"> <li>Estimation</li> <li>Adding, subtracting and multiplying in columns</li> <li>Long division</li> <li>Rounding off and compensating</li> <li>Using a calculator</li> </ul> </li> </ul> <p><b>Multiples and factors</b>  <b>Revise:</b></p> <ul style="list-style-type: none"> <li>Prime factors of numbers to at least 3-digit whole numbers</li> <li>LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation</li> </ul> <p><b>Solving problems</b>  <b>Revise:</b></p> <ul style="list-style-type: none"> <li>Solve problems involving whole numbers, including:                             <ul style="list-style-type: none"> <li>Comparing two or more quantities of the same kind (ratio)</li> <li>Comparing two quantities of different kinds (rate)</li> <li>Sharing in a given ratio where the whole is given</li> </ul> </li> <li>Extend to increasing or decreasing of a number in a given ratio</li> <li>Solve problems that involve</li> </ul>		<p><b>Calculations with integers</b></p> <ul style="list-style-type: none"> <li><b>Revise</b> addition and subtraction with integers</li> <li>Multiply and divide with integers</li> <li>Perform calculations involving all four operations with integers</li> <li>Perform calculations involving all four operations with numbers that involve squares, cubes, square roots and cube roots of integers</li> </ul>		<p><b>Calculations with fractions</b></p> <ul style="list-style-type: none"> <li>Divide whole numbers and common fractions by common fractions</li> <li>Calculate the squares, cubes, square roots and cube roots of common fractions</li> <li>Calculate amounts if given percentage increase or decrease</li> <li>Calculations and solving problems</li> </ul> <p><b>Calculation techniques</b></p> <ul style="list-style-type: none"> <li>Use knowledge of reciprocal relationships to divide common fractions</li> </ul> <p><b>Percentage</b></p> <ul style="list-style-type: none"> <li>Calculate amounts if given percentage increase or decrease</li> </ul> <p><b>Solving problems</b></p> <ul style="list-style-type: none"> <li>Solve problems in contexts involving common fractions and mixed numbers, including grouping, sharing and finding fractions of whole numbers</li> <li>Solve problems in contexts involving percentages</li> <li></li> </ul>		<p><b>Class test</b></p> <ul style="list-style-type: none"> <li>Whole numbers</li> <li>Integers</li> <li>Common fractions</li> </ul>	<p><b>Calculations with decimal fractions</b></p> <ul style="list-style-type: none"> <li>Multiplication of decimal fractions by decimal fractions not limited to one decimal place</li> <li>Division of decimal fractions by decimal fractions</li> <li>Calculate the squares, cubes, square roots and cube roots of decimal fractions</li> </ul> <p><b>Calculation techniques</b></p> <ul style="list-style-type: none"> <li>Use knowledge of place value to estimate the number of decimal places in the result before performing calculations</li> <li>Use rounding off and a calculator to check results where appropriate</li> </ul>		<p><b>TEST</b> All topics</p>	

		whole numbers, percentages and decimal fractions in financial contexts such as:					
<b>Prerequisite skill/pre-knowledge</b>		<ul style="list-style-type: none"> <li>• Multiplication of whole numbers to at least <math>12 \times 12</math></li> <li>• Order and compare prime numbers to at least 100</li> <li>• Calculations using all four operations on whole numbers, estimating and using calculators where appropriate</li> <li>• Prime factors of numbers to at least 3-digit whole numbers</li> <li>• LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation</li> <li>• Solve problems involving whole numbers, including: <ul style="list-style-type: none"> <li>- Comparing two or more quantities of the same kind (ratio)</li> <li>- Comparing two quantities of different kinds (rate)</li> <li>- Sharing in a given ratio where the whole is given</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Count forwards and backwards in integers for any interval</li> <li>• Recognise, order and compare integers</li> <li>• Add and subtract with integers</li> <li>• Recognise and use commutative and associative properties of addition and multiplication for integers</li> <li>• Solve problems in contexts involving addition and subtraction of integers</li> </ul>	<ul style="list-style-type: none"> <li>• Addition and subtraction to fractions where one denominator is not a multiple of the other</li> <li>• Multiplication of common fractions, including mixed numbers, not limited to fractions where one denominator is a multiple of another</li> <li>• Converting mixed numbers to common fractions</li> <li>• Use knowledge of multiples and factors to write fractions in the simplest form before or after calculations</li> <li>• Use knowledge of equivalent fractions to add and subtract common fractions in order to perform calculations with them</li> <li>• Calculate the percentage of part of a whole</li> <li>• Calculate percentage increase or decrease of whole numbers</li> </ul>		<ul style="list-style-type: none"> <li>• Count forwards and backwards in decimals</li> <li>• Compare and order decimal fractions</li> <li>• Rounding off decimal fractions</li> <li>• Addition and subtraction of decimal fractions of at least three decimal places</li> <li>• Multiplication of decimal fractions by whole numbers and decimals</li> <li>• Division of decimal fractions by whole numbers</li> <li>• Use knowledge of Place value to estimate the number of decimal places in the result before performing calculations</li> <li>• Use rounding off and a calculator to check results where appropriate</li> </ul>	

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<p><b>Prerequisite skill/ pre-knowledge</b></p>	<ul style="list-style-type: none"> <li>Count forwards and backwards in decimals</li> <li>Compare and order decimal fractions</li> <li>Rounding off decimal fractions</li> <li>Addition and subtraction of decimal fractions of at least three decimal places</li> <li>Multiplication of decimal fractions by whole numbers and decimals</li> <li>Division of decimal fractions by whole numbers</li> <li>Use knowledge of Place value to estimate the number of decimal places in the result before performing calculations</li> <li>Use rounding off and a calculator to check results where appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Compare and represent whole numbers in exponential form: <math>a^b = a \times a \times a \times \dots</math> for <math>b</math> number of factors</li> <li>Recognise and use the appropriate laws of operations with numbers involving exponents and square and cube roots</li> <li>Perform calculations involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots</li> <li>Solve problems in contexts involving numbers in exponential form</li> </ul>	<ul style="list-style-type: none"> <li>Investigate and extend numeric and geometric patterns looking for relationships between numbers, including patterns: <ul style="list-style-type: none"> <li>represented in physical or diagram form</li> <li>not limited to sequences involving a constant difference or ratio</li> <li>of learner's own creation</li> <li>represented in tables</li> </ul> </li> <li>Describe and justify the general rules for observed relationships between numbers in own words</li> </ul>	<ul style="list-style-type: none"> <li>Determine input values, output values or rules for patterns and relationships using: <ul style="list-style-type: none"> <li>flow diagrams</li> <li>tables</li> <li>formulae</li> </ul> </li> <li>Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: <ul style="list-style-type: none"> <li>verbally</li> <li>in flow diagrams</li> <li>in tables</li> <li>by formulae</li> <li>by number sentences</li> </ul> </li> </ul>	<p>-</p>	<ul style="list-style-type: none"> <li>Recognize and interpret rules or relationships represented in symbolic form</li> <li>Identify variables and constants in given formulae and/or equations</li> </ul>	
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