**ENGLISH MATHEMATICS \_2021 WEEKLY TEACHING PLAN \_ GRADE 6**

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| **TERM 1** | **Week 1**  **3 days** | **Week 2**  **5 days** | **Week 3**  **5 days** | **Week 4**  **5 days**: | **Week 5**  **5 days** | **Week 6**  **5 days** | **Week 7**  **5 days** | | **Week 8**  **5 days** | **Week 9**  **4 days** | | **Week 10**  **3 days** |
| **Hours per week** | **3 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | | **6 hrs.** | **5 hrs.** | | **3 hrs.** |
| **Hours per topic** | **3 hrs.** | **6 hrs.** | **12 hrs.** | | **12 hrs.** | | **2 hrs** | **12 hrs.** | | | **6 hrs.** | |
| **Topics, concepts and skills** | **REVISION OF GRADE 5 WEEK** | **WHOLE NUMBERS:**  **Counting, ordering, comparing, representing and place value**  **(6 – 9 digit numbers)**   * Order, compare and represent numbers up to at least 9-digit numbers * Represent prime numbers to at least 100 * Recognize the place value of digits in whole numbers to at least 9-digit numbers * Round off to the nearest 5, 10, 100 and 1 000 | **ADDITION AND SUBTRACTION:**  **Number range for calculations**   * Addition and subtraction of whole numbers with at least 5-digit and 6-digit numbers   **Calculation techniques**   * Using a range of techniques to perform and check written and mental calculations with whole numbers including: * estimation * adding, subtracting in columns * building up and breaking down numbers * rounding off and compensating * using a number line * using addition and subtraction as inverse operations * using a calculator   **Properties of whole numbers**   * Recognize and use the commutative; associative; distributive properties of whole numbers * 0 in terms of its additive property   **Solving problems**   * Solve problems involving whole numbers and decimal fractions, including: * financial contexts * mmeasurement contexts | | **WHOLE NUMBERS:**  **Multiplication**  **Number range for calculations**   * Multiplication of at least whole **4-digit by 3-digit numbers** * Multiple operations on whole numbers with or without brackets   **Calculation techniques include**   * Using a range of techniques to perform and check written and mental calculations with whole numbers including: * estimation * multiplying in columns * building up and breaking down numbers * doubling and halving * using multiplication and division as inverse operations * using a calculator   **Number range for multiples and factors**   * Multiples of 2-digit and 3-digit numbers * Factors of 2-digit and 3-digit whole numbers * Prime factors of numbers to at least 100   **Properties of whole numbers**   * Recognize and use the commutative; associative; distributive properties of whole numbers * 1 in terms of its multiplicative property   **Solving problems**     * Solve problems involving whole numbers and decimal fractions, including: * financial contexts * measurement contexts * Solve problems involving whole numbers, including: * comparing two or more quantities of the same kind (ratio) * comparing two quantities of different kinds (rate) | | **FORMAL ASSESSMENT TASK**  **ASSIGNMENT**  Counting, ordering, comparing, representing and place value  Addition and subtraction  Multiplication | **WHOLE NUMBERS:**  **Division**  **Number range for calculations**   * Division of at least whole 4**-digit by 3-digit numbers** * Multiple operations on whole numbers with or without brackets   **Calculation techniques**   * Using a range of techniques to perform and check written and mental calculations with whole numbers including: * estimation * between multiplication and division * long division * building up and breaking down numbers * doubling and halving * using multiplication and division as inverse operations * using a calculator   **Number range for multiples and factors**     * Multiples of 2-digit and 3-digit numbers * Factors of 2-digit and 3-digit whole numbers * Prime factors of numbers up to at least 100   **Properties of whole numbers**   * Recognize and use the commutative; associative; distributive properties of whole numbers * 1 in terms of its multiplicative property     **Solving problems**   * Solve problems involving whole numbers and decimal fractions, including: * financial contexts * measurement contexts * Solve problems involving whole numbers, including: * comparing two or more quantities of the same kind (ratio) * ccomparing two quantities of different kinds (rate)   grouping and equal sharing with remainders | | | **FORMAL ASSESSMENT TASK**  **TEST**  All topics | |
| **Prerequisite skill or pre-knowledge** |  | * Counting, ordering, comparing, representing and place value of   (4 – 6 digit numbers)   * Represent odd and even numbers to at least 1 000. | * Addition and Subtraction of 5-digit numbers * Properties of operations with whole numbers | | * Multiplication of 3-digit by 2-digit numbers * Prime numbers * Multiples of 2-digits whole numbers to at least 100 * Factors of 2-digit whole numbers to at least 100 * Properties of operations with whole numbers | |  | * Division of 3-digit by 2-digit numbers * Multiples of 2-digits whole numbers to at least 100 * Factors of 2-digit whole numbers to at least 100 * Properties of operations with whole numbers | | |  | |

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| **TERM 2** | **Week 1**  **4 days** | **Week 2**  **5 days** | | **Week 3**  **3 days** | **Week 4**  **5 days** | | **Week 5**  **5 days** | | **Week 6**  **5 days** | **Week 7**  **5 days** | | **Week 8**  **5 days** | **Week 9**  **5 days** | **Week 10**  **4 days** | **Week 11**  **5 days** |
| **Hours per week** | **5 hrs.** | **6 hrs.** | | **3 hrs.** | **6 hrs.** | | **6 hrs.** | | **6 hrs.** | **6 hrs.** | | **6 hrs.** | **6 hrs.** | **5 hrs.** | **6 hrs.** |
| **Hours per topic** | **6 hrs** | | **9 hrs** | | | **6 hrs** | | **15 hrs** | | | **2 hrs.** | **12 hrs** | | **5 hrs.** | **6 hrs.** |
| **Topics, concepts and skills** | **NUMBER SENTENCES**   * Write number sentences to describe problem situations * Solve and complete number sentences by: * inspection * trial and improvement * Check solutions by substitution | | **NUMERIC PATTERNS**  **Investigate and extend patterns**   * Investigate and extend numeric patterns looking for relationships or rules of patterns: * sequences involving a constant difference or ratio * of learner’s own creation * represented in tables * Describe observed relationships or rules in learner’s own words   **Input and output values**   * Determine input values, output values and rules for the patterns and relationships using: * flow diagrams * tables   **Equivalent forms**   * Determine equivalence of different descriptions of the same relationship or rule presented: * verbally * in a flow diagram * by a number sentence | | | **GEOMETRIC PATTERNS**  **Investigate and extend patterns**   * Investigate and extend numeric patterns looking for relationships or rules of patterns: * represented in physical or diagram form * sequences involving a constant difference or ratio * of learner’s own creation * Describe observed relationships or rules in learner’s own words   **Input and output values**   * Determine input values, output values and rules for the patterns and relationships using: * flow diagrams * tables   **Equivalent forms**   * Determine equivalence of different descriptions of the same relationship or rule presented: * verbally * in a flow diagram * by a number sentence | | **COMMON FRACTIONS**  **Describing and ordering fractions:**   * Compare and order common fractions, including specifically tenths and hundredths   **Calculations with fractions:**   * Addition and subtraction of common fractions in which one denominator is a multiple of another * Addition and subtraction of mixed numbers * Fractions of whole numbers   **Solving problems**   * Solve problems in contexts involving common fractions, including grouping and sharing   **Percentages**   * Find percentages of whole numbers   **Equivalent forms:**   * Recognize and use equivalent forms of common fractions with 1-digit or 2-digit denominators (fractions in which one denominator is a multiple of another) * Recognize equivalence between common fraction, decimal fraction and percentage forms of the same number | | | **FORMAL ASSESSMENT TASK**  **INVESTIGATION**   * Numeric and Geometric Patterns * Common Fractions | **DECIMAL FRACTIONS**  **Recognizing, ordering and place value of decimal fractions**   * Count forwards and backwards in decimal fractions to at least two decimal places * Compare and order decimal fractions to at least two decimal places * Place value of digits to at least two decimal places   **Calculations with decimal fractions**   * Addition and subtraction of decimal fractions of at least two decimal places * Multiply decimal fractions by 10 and 100   **Solving problems**   * Solve problems in context involving decimal fractions   **Equivalent forms:**   * Recognize equivalence between common fraction and decimal fraction forms of the same number * Recognize equivalence between common fraction, decimal fraction and percentage forms of the same number | | **REVISION** | **FORMAL ASSESSMENT TASK**  **TEST**  All Term 1 and Term 2 topics |
| **Prerequisite skill or pre-knowledge** | Number sentences at the level of grade 5 | | * Investigate and extend patterns * Describe patterns in own words * Describe general rules observed in patterns * Determine input and output values | | | * Investigate and extend patterns * Describe patterns in own words | | * Whole numbers * Equal sharing * Fractions of whole numbers * Equivalence | | |  | * Common fractions * Percentages * Compare and order tenths and hundredths * Fractions of whole numbers * Equivalence | |  |  |

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| **TERM 3** | **Week 1**  **4 days** | **Week 2**  **5 days** | | **Week 3**  **5 days** | **Week 4**  **5 days** | | **Week 5**  **4 days** | **Week 6**  **5 days** | **Week 7**  **5 days** | **Week 8**  **5 days** | | **Week 9**  **5 days** | **Week 10**  **5 days** | **Week 11**  **4 days** |
| **Hours per week** | **5 hrs.** | **6 hrs.** | | **6 hrs.** | **6 hrs.** | | **5 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | | **6 hrs.** | **6 hrs.** | **5 hrs.** |
| **Hours per topic** | **6 hrs** | | **12 hrs** | | | **6 hrs.** | | **6 hrs** | **9 hrs** | | | **6 hrs.** |  | **5 hrs.** |
| **Topics, concepts and skills** | **LENGTH**  **Practical measuring**   * Estimate and practically measure 2‑D shapes and 3-D objects using measuring instruments such as: * rulers * metre sticks * tape measures * trundle wheels * Record, compare and order lengths of shapes and objects in millimetres (mm), centimetres (cm), metres (m), kilometres (km)   **Calculations and problem-solving**   * Solve problems in contexts involving length * Convert between   millimetres (mm),  centimetres (cm),  metres (m) and  kilometres (km) to  include fraction and decimal forms (to 2 decimal places) | | **PROPERTIES OF 2-D SHAPES**  **Range of shapes**   * Regular and irregular polygons * triangles, squares, rectangles, parallelograms, other quadrilaterals, pentagons, hexagons, heptagons, octagons * Similarities and differences between rectangles and parallelograms   **Features of shapes**   * Describe, sort and compare 2-D shapes in terms of * number of sides * length of sides * size of angles * acute * right * obtuse * straight * reflex * revolution   **Further activities**   * Draw 2-D shapes on grid paper * Draw circles, patterns in circles and patterns with circles using a pair of compasses   **Angles**   * Recognize and name the following angles in 2-D shapes: * acute * right * obtuse * straight * reflex * revolution | | | **TRANSFORMATIONS**  **Describe patterns**  Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns   * in nature * from modern everyday life * from our cultural heritage   **Enlargement and reductions**   * Draw enlargement and reductions of 2-D shapes to compare size and shape of * triangles * quadrilaterals | | **PROPERTIES OF 3-D OBJECTS**  **Range of objects**   * Recognize, visualize and name 3-D objects in the environment and geometric settings, focusing on: * rectangular prisms * cubes * tetrahedrons * pyramids * similarities and differences between tetrahedrons   and other pyramids  **Characteristics of objects**   * Describe, sort and compare 3-D objects in terms of: * number and shape of faces * number of vertices * number of edges   **Further activities**   * Make 3-D models using: * drinking straws, toothpicks etc. * nets | **AREA, PERIMETER AND VOLUME**  **Perimeter**   * Measure perimeter using rulers or measuring tapes   **Measurement of area**   * Continue to find areas of regular and irregular   shapes by counting squares on grids   * Develop rules for calculating the areas of squares and rectangles   **Measurement of volume**   * Continue to find volume/capacity of objects by packing or filling them * Develop an understanding of why the volume of   rectangular prisms is given by length multiplied by  width multiplied by height  **Investigate:**   * Relationship between perimeter and area of   rectangles and squares.   * Relationship between surface area and volume of rectangular prisms | | | **CAPACITY AND VOLUME**  **Practical Measuring**     * Estimate and practically measure 3-D objects using measuring instruments such as: * measuring spoons * measuring cups, * measuring jugs * Record, compare and order capacity and volume of 3D objects in millilitres (ml), litres (l) and kilolitres (*kl*)   **Calculations and problem‑ solving**   * Solve problems in contexts involving capacity/volume * Convert between kilolitres, litres and millilitres to   include fraction and decimal forms (to 2 decimal places) | **REVISION** | **FORMAL ASSESSMENT TASK**  **TEST**  All topics |
| **Prerequisite skill or pre-knowledge** | * Estimating, measuring, recording, comparing and ordering length * Use Measuring instruments: * Units of length: * Solve problems in contexts * Conversions limited to whole numbers and common fractions | | * Similarities and differences between squares and   rectangles   * Recognize and describe angles in 2-D shapes: * right angles * angles smaller than right angles * angles greater than right angles * Describe, sort and compare 2-D shapes in terms of * straight and curved sides * number of sides * lengths of sides * angles in shapes, limited to right angles, angles smaller than right angles and angles greater than right angles | | | * 2D shapes * Symmetry | | * Similarities and differences between cubes and rectangular prisms * Describe, sort and compare 3-D objects in terms of: * shape of faces * number of faces * flat and curved surfaces |  | |  | |  |  |

**N.B. BY THE END OF TERM 3, LEARNERS SHOULD HAVE COMPLETED A PROJECT AND A TEST. SEE NOTES ON PROJECT FROM ABRIDGED SECTION 4 OF CAPS.**

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| **TERM 4** | **Week 1**  **4 days** | **Week 2**  **5 days** | | | **Week 3**  **5 days** | **Week 4**  **5 days**: | **Week 5**  **5 days** | **Week 6**  **5 days** | **Week 7**  **5 days** | **Week 8**  **5 days** | **Week 9**  **5 days** | **Week 10**  **3 days** |
| **Hours per week** | **5 hrs.** | **6 hrs.** | | | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **6 hrs.** | **3 hrs.** |
| **Hours per topic** | **6 hrs.** | | | **6 hrs.** | | **12 hrs.** | | **12 hrs.** | |  | **6 hrs** | **3 hrs.** |
| **Topics, concepts and skills** | **MASS**  **Practical measuring**   * Estimate and practically measure 3-D objects using measuring instruments such as: * bathroom scales (analogue and digital); * kitchen scales (analogue and digital) * balances * Record, compare and order mass of objects in grams (g) and kilograms (kg).   **Calculations and problem-solving**   * Solve problems in contexts involving mass * Convert between grams and kilograms to include fraction and decimal forms (to 2 decimal places) | | | **TIME**  **Reading time and time instruments**   * Read, tell and write time in 12-hour and 24-hour formats on both analogue and digital instruments in: * hours * minutes * seconds * Instruments include clocks, watches and stopwatches   **Reading calendars**  **Calculations and problem-solving related to time**   * Solve problems in contexts involving time * Read time zone maps and calculating time differences based on time zones * Calculation of time intervals where time is given in: * seconds and/or minutes; * minutes and/or hours * hours and /or days * days and/or weeks and/or months * years and/or decades * centuries, decades and years | | **DATA HANDLING**  **Collecting and organising data**  **Collect data**   * Use tally marks and tables for recording * Use simple questionnaires (yes/no type response) * Order data from smallest group to largest group   **N.B PROVIDE LEARNERS WITH DATA TO SAVE TIME**  **Representing data**   * Draw a variety of graphs to display and interpret data including: * pictographs with many-to-one representations * bar graphs and double bar graphs   **Analysing, interpreting and reporting data**   * Critically read and interpret data represented in: * words * pictographs * bar graphs * double bar graphs * pie charts * Analyse data by answering questions related to: * data categories, including data intervals * data sources and contexts * central tendencies – (mode and median) * Summarise data verbally and in short written paragraphs that include * drawing conclusions about the data * making predictions based on the data | | **USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT**  **Solving problems**   * Solve problems in contexts involving whole numbers and fractions, including: * financial contexts * measurement contexts * fractions, including grouping and equal sharing * comparing two or more quantities of the same kind (ratio) * comparing two quantities of different kinds (rate) | | **REVISION** | **FORMAL ASSESSMENT TASK**  **TEST**  All Term 3 and Term 4 topics | |
| **Prerequisite skill or pre-knowledge** | * Estimating, measuring, recording, comparing and ordering mass * Use Measuring instruments * Units of mass * Solve problems in contexts * Conversions limited to whole numbers and common fractions | | * Calculation of the number of days between any two dates within the same or consecutive years * Calculation of time intervals where time is given in minutes or hours only | | | * Number sentences * All operations with whole numbers, common fractions and decimal fractions | |  | |  |  | |