| **JSS 1 – Term 1** | | | | | |
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| **Week** | **Theme** | **Topic** | **LP No.** | **Lesson Title** | **Learning outcomes**  *Pupils will be able to:* |
| 1 | Number and Numeration | count from any number in multiples of a given number, including whole numbers, and powers of 10  identify, read, write, compare and order whole numbers, up to 100,000,000 in numerals and in words, and locate them on a number line |  | Numbers up to 1,000 | Identify, compare and order numbers up to 1,000  Locate numbers up to 1,000 on a number line |
|  | Numbers up to 100,000 | Identify, compare and order numbers up to 100,000  Locate numbers up to 100,000 on a number line |
|  | Numbers up to 100,000,000 | Identify, compare and numbers up to 100,000,000  Locate numbers up to 100,000,000 on a number line |
|  | Counting patterns | Count in multiples of a given number |
|  | Counting by powers of 10 | Identify powers of ten  Count by powers of ten |
| 2 | Number and Numeration | use the concept and vocabulary of factors, multiples, prime and composite numbers (review);  find prime factors of whole numbers | M-07-001 | Concept and Vocabulary of Factors | Identify factors of given numbers. |
| M-07-002 | Multiples of Whole Numbers | Identify multiples of given numbers |
|  | Prime and Composite Numbers | Identify the difference between prime and composite numbers. |
|  | Prime Factors of Whole Numbers up to 20 | Find prime factors of whole numbers between 0 and 20. |
| M-07-003 | Prime Factors of Whole Numbers Greater than 20 | Find prime factors of given numbers between 20 and 50. |
| 3 | Number and Numeration | find highest common factor HCF, lowest common multiple LCM (review)  find squares and cubes by prime factorization | M-07-004 | Common Factors | Identify common factors of given numbers. |
| M-07-005 | Highest Common Factors (HCF) | Identify highest common (H.C.F) of given numbers. |
| M-07-006 | Common Multiples | Identify common multiples of given numbers. |
| M-07-007 | Lowest Common Multiples (LCM). | Identify lowest common multiples of given numbers. |
| M-07-008 | Squares of Whole Numbers | Find squares of whole numbers up to 10. |
| 4 | Number and Numeration | INDEX NOTATION  investigate index notation for positive whole numbers;  find and use the rules for multiplying and dividing powers of a number | M-07-009 | Cubes of Whole Numbers | Find cubes of whole numbers up to 10. |
| M-07-010 | Higher Powers of Whole Numbers | Find higher powers (greater than 3) of whole numbers |
| M-07-011 | Multiplying two Indices | Simplify multiplication of two indices less than 10. |
| M-07-012 | Dividing two Indices | Simplify division of two indices less than 10. |
| M-07-013 | Multiplication and Division of Indices | Simplify multiplication and division of indices less than 10. |
| 5 | Number and Numeration | FRACTIONS  identify, read and write fractions;  compare and order fractions in numerals and in words, and locate them on a number line | M-07-014 | Introduction to Fractions | Recognize and name fractional parts of a whole. |
|  | Fractions with the Same Denominator. | Compare and order fractions with the same denominator. |
| M-07-015 | Fractions with Different Denominators. | Compare and order fractions with different denominators. |
|  | Fractions on a Number Line | Locate fractions on a number line. |
| M-07-016 | Adding Fractions with the Same Denominator. | Add fractions with the same denominator. |
| 6 | Number and Numeration | review equivalent fractions and use to compare and order fractions, and to reduce fractions to their lowest terms; | M-07-017 | Adding Fractions with Different Denominators | Add fractions with different denominators. |
| M-07-018 | Subtracting Fractions with the Same Denominators | Subtract Fractions with the same denominators. |
| M-07-019 | Subtracting Fractions with different Denominators | Subtract Fractions with different denominators. |
| M-07-020 | Multiplication of Fractions | Multiply two or more fractions. |
| M-07-021 | Division of Fractions | Divide two fractions. |
| 7 | Everyday Arithmetic | apply *everyday arithmetic* to calculate with fractions (see list) |  | Story problems on addition of fractions | Solve story problems on addition of fractions. |
|  | Story problems on subtraction of fractions. | Solve story problems on subtraction of fractions. |
|  | Story problems on multiplication of fractions. | Solve story problems on multiplication of fractions. |
|  | Story problems on division of fractions. | Solve story problems on division of fractions. |
| M-07-022 | Story problems on the basic operations on fractions. | Solve story problems on addition, subtraction, multiplication and division of fractions. |
| 8 | Number and Numeration | DECIMALS  identify, read and write decimals;  compare and order decimals in numerals and in words, and locate them on a number line;  identify and calculate equivalences between fractions and decimals | M-07-023 | Place value for decimals. | Identify, read and write decimals. |
|  | Decimals in figures and words. | Write decimals in figures and words. |
|  | Decimals on the number line. | Locate given decimals on a number line  Compare and order decimals |
| M-07-024 | Decimals to fractions | Express decimals as fractions |
| M-07-025 | Fractions to decimals | Express fractions as decimals |
| 9 | Number and Numeration | round whole numbers and  decimals to a required degree of accuracy including number of decimal places;  multiply and divide whole numbers and decimals by powers of 10 | M-07-026 | Rounding off decimal numbers to whole numbers. | Round decimal numbers to the nearest whole number |
| M-07-027 | Rounding off decimal numbers to stated decimal places. | Round decimal numbers to a given number of decimal places |
| M-07-028 | Rounding off whole numbers and decimals to the nearest 10, 100 and 1000 | Round whole numbers and decimals to the nearest 10, 100 and 1000 |
| M-07-029 | Multiplying whole numbers and decimals by powers of 10 | Multiply whole numbers and decimals by powers of 10 |
| M-07-030 | Dividing whole numbers and decimals by powers of 10 | Divide whole numbers and decimals by powers of 10 |
| 10 | Everyday Arithmetic | apply *everyday arithmetic* to calculate with whole numbers and decimals (see list) | M-07-031 | Review of the four operations with whole numbers | Add, subtract, multiply and divide whole numbers |
| M-07-032 | Review of the four operations with decimals | Add, subtract, multiply and divide decimals |
| M-07-033 | Order of operations | Carry out calculations using the correct order of operations (BODMAS) |
| M-07-034 | Estimation | Round numbers to find rough estimates before calculating  Check answers by calculating |
| M-07-035 | Story problems with whole numbers and decimals | Estimate answers to story problems with whole numbers and decimals before solving  Solve story problems with whole numbers and decimals  Give answers to specified degree of accuracy |
| 11 | Number and Numeration | PERCENTAGES  Introduce percent (as parts of  100).  identify and calculate equivalences between fractions, decimals and percentages | M-07-036 | Percentages | Introduce percentages as parts of 100 |
| M-07-037 | Percentages to fractions and decimals | Express percentages as fractions and decimals |
| M-07-038 | Fractions and decimals to percentages | Express fractions and decimals as percentages |
| M-07-039 | Identifying the percentage of a given quantity | Calculate the given percentage of a given quantity |
| M-07-040 | Expressing one quantity as a percentage of another | Calculate one quantity as a percentage of another |
| 12 | Everyday Arithmetic | solve problems with percentages   * calculate the percentage of a quantity * express one quantity as a percentage of another   solve multi-step story problems with percentages | M-07-041 | Percentage increase | Calculate the percentage increase, given two numbers |
| M-07-042 | Percentage decrease | Calculate the percentage decrease, given two numbers |
| M-07-043 | Applying percentage increase and decrease | Calculate a number given the percentage increase or decrease upon a given number |
| M-07-044 | Applying percentages to problems with money | Solve problems with percentages involving money |
| M-07-045 | Story problems with percentages | Solve story problems with percentages |
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| **JSS 1 – Term 2** | | | | | |
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| **Week** | **Theme** | **Topic** | **LP No.** | **Lesson Title** | **Learning outcomes**  *Pupils will be able to:* |
| 1 | Number and Numeration | RATIO  extend the definition of ratio to percentages and decimals comparing two or more quantities | M-07-046 | Introduction to ratio | Identify that ratio compares two quantities by division  Use ratio language to compare quantities of things in their surroundings |
| M-07-047 | Ratio of a whole | Identify that ratio can compare part of something to the whole  Use ratio language to compare parts to the whole in their surroundings |
| M-07-048 | Ratios and fractions | Express ratios as fractions |
| M-07-049 | Ratios and percentages | Identify that a percent is a ratio that compares a number to 100  Express ratios as percentages |
| M-07-050 | Ratios and decimals | Express ratios as decimals |
| 2 | Number and Numeration | solve problems involving ratio and express answers in lowest terms | M-07-051 | Simplification of Ratios | Identify equivalent ratios  Simplify a ratio to its lowest terms |
| M-07-052 | Ratio problems with two terms | Share a given quantity among a given ratio with two terms (*m*:*n*) |
| M-07-053 | Ratio problems with three or more terms | Share quantities among given ratios with three or more terms (*m*:*n*:*p*) |
| M-07-054 | Relating Ratio to measurement | Solve ratio problems involving measurement |
| M-07-055 | Ratio story problems | Solve story problems involving ratios |
| 3 | Number and Numeration | INTEGERS  investigate everyday situations that use integers (positive and negative whole numbers and zero);  compare and order integers, and locate them on a number line  use addition and subtraction facts for integers  use multiplication and division facts for integers | M-07-056 | Introduction to Integers | Recognize and count positive and negative integers, and zero |
| M-07-057 | Positive and Negative Integers | Locate positive and negative integers on a number line |
| M-07-058 | Comparing integers | Compare and order positive and negative integers |
| M-07-059 | Addition of integers using a number line | Add any two positive or negative integers using a number line |
| M-07-060 | Addition of integers | Apply rules for adding integers to any two positive or negative integers |
| 4 | Number and Numeration | INTEGERS CONT.  use multiplication and division facts for integers | M-07-061 | Subtraction of integers | Subtract any two positive or negative integers |
| M-07-062 | Multiplication of integers using a number line | Multiply positive and negative integers using a number line |
| M-07-063 | Multiplication of integers | Apply rules for multiplying integers to multiply any two positive or negative integers |
| M-07-064 | Division of Integers | Divide any two positive or negative integers |
| M-07-065 | Problem solving on integers | Solve story problems involving positive and negative integers  Apply the correct order of operations (BODMAS) to problems involving positive and negative integers |
| 5 | Everyday Arithmetic | EVERYDAY ARITHMETIC  apply *everyday arithmetic* to calculate with whole numbers and percent, including simple wage and tax calculations (see list) | M-07-066 | Simple proportion | Solve simple proportion problems |
| M-07-067 | Simple interest | Solve problems involving simple interest |
| M-07-068 | Discount | Calculate discount on a given sum of money |
| M-07-069 | Commission | Calculate commission on a given sum of money |
| M-07-070 | Tax | Calculate tax on a given sum of money |
| 6 | Measurement and Estimation | MEASUREMENT  investigate the meaning of mass and volume  convert between different units (within the same system) of measurement for length, area, mass and volume / capacity  apply everyday arithmetic to calculate with measurements (see list) | M-07-071 | Units of measurement | Identify the units of measurement for length, mass, and volume  Compare mass and volume |
| M-07-072 | Conversion of length | Convert between units of length within the same system |
| M-07-073 | Conversion of mass | Convert between units of mass within the same system |
| M-07-074 | Conversion of volume | Convert between units of volume within the same system |
| M-07-075 | Review of plane shapes | Identify and label the parts of rectangles, squares and triangles |
| 7 | Measurement and Estimation | PERIMETER and AREA  Identify and label the parts of rectangles, squares, and triangles  recall and use the formulas for perimeter and area of squares, rectangles and triangles;  solve multi-step story problems involving perimeter and area of parallelograms and triangles | M-07-076 | Perimeter | Find the perimeter of rectangles, triangles and squares |
| M-07-077 | Area of rectangles and squares | Calculate the area of rectangles and squares using the formulae |
| M-07-078 | Area of triangles | Calculate the area of triangles using the formula |
| M-07-079 | Perimeter story problems | Solve story problems involving the perimeter of plane shapes |
| M-07-080 | Area story problems | Solve story problems involving the area of plane shapes |
| 8 | Measurement and Estimation | label the parts of a circle and identify that the diameter is twice the radius  use the formulas for circumference and area of circles;  solve multi-step story problems involving circumference and area of circles | M-07-081 | Circles | Identify and label the parts of circle  Identify that the diameter is twice the radius |
| M-07-082 | Circumference of circles | Calculate the circumference of a circle using the formula |
| M-07-083 | Area of circles | Calculate the area of a circle using the formula |
| M-07-084 | Problem solving with circles | Solve multi-step problems involving circle measurements, including radius, diameter, circumference, and area |
| M-07-085 | Circle story problems | Solve story problems involving the circumference and area of circles |
| 9 | Measurement and Estimation | VOLUME  Investigate the concept of volume of solids  use the formula for volume of rectangular prisms (cubes and cuboids);  solve multi-step story problems involving volume | M-07-086 | Volume of solids | Identify the general formula for volume of prisms and cylinders as cross-section multiplied by height  Identify and interpret measurements for volume (units cubed) |
| M-07-087 | Volume of cubes | Calculate the volume of a cube using the formula |
| M-07-088 | Volume of cuboids | Calculate the volume of a cuboid (rectangular prism) using the formula |
| M-07-089 | Problem solving with volume | Solve multi-step problems involving length, area, and volume measurements |
| M-07-090 | Volume story problems | Solve story problems involving the volume of cubes and cuboids |
| 10 | Geometry | ANGLES  Introduce types of angles (acute, obtuse, right) and basic angle measurement/understanding of degrees; find unknown angles in composite figures involving triangles, squares and rectangles (review) | M-07-091 | Introduction to angles | Identify and compare types of angles (acute, obtuse, right angle)  Identify degrees as angle measurement |
| M-07-092 | Measurement of angles | Estimate the measure of a given angle  Measure given angles (acute, obtuse, right angle) using a protractor |
| M-07-093 | Finding unknown angles in rectangles and squares | Identify that each angle of a rectangle or square measures 90°  Find unknown angles in rectangles and squares |
| M-07-094 | Finding unknown angles in triangles | Identify that the sum of the angles of a triangle is 180°  Find unknown angles in triangles |
| M-07-095 | Finding unknown angles in composite shapes | Identify unknown angles in composite shapes involving rectangles, squares, and triangles |
| 11 | Geometry | Identify and solve problems with supplementary and complementary angles; investigate angles formed by parallel and intersecting lines, and use results to find unknown angles | M-07-096 | Introduction to supplementary and complementary angles | Identify and compare complementary and supplementary angles |
| M-07-097 | Complementary angles | Find an unknown angle given two complementary angles |
| M-07-098 | Supplementary angles | Find an unknown angle given two supplementary angles |
| M-07-099 | Intersecting lines | Identify that intersecting lines make supplementary angles  Find unknown angles formed by two intersecting lines |
| M-07-100 | Transversal of parallel lines | Identify angles that are supplementary and angles that are equal when a transversal cuts two parallel lines  Find unknown angles formed by parallel lines and a transversal line |
| 12 | Geometry | CONSTRUCTION  use drawing tools to construct triangles and circles  use drawing tools to construct parallel and perpendicular lines | M-07-101 | Construction of circles | Use a pair of compasses to construct a circle with a given radius |
| M-07-102 | Construction of triangles | Use a pair of compasses to construct a triangle given the lengths of its 3 sides |
| M-07-103 | Construction of parallel lines | Use a pair of compasses to construct parallel lines |
| M-07-104 | Construction of perpendicular lines | Use a pair of compasses to construct perpendicular lines |
| M-07-105 | Construction Practice | Construct circles, triangles, and parallel and perpendicular lines |
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| **JSS 1 – Term 3** | | | | | |
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| **Week** | **Theme** | **Topic** | **LP No.** | **Lesson Title** | **Learning outcomes**  *Pupils will be able to:* |
| 1 | Algebra | ALGEBRA  3 days  identify, describe and complete simple arithmetic patterns;  determine the rule in the number pattern and use it to predict for unknown values  2 days  use letters as variables to represent numbers and identify their values; | M-07-106 | Identifying number patterns | Identify and describe an arithmetic pattern from a list of numbers |
| M-07-107 | Rules in number patterns | Identify the rule in a given arithmetic pattern  Create a basic arithmetic pattern given a rule |
| M-07-108 | Completing number patterns | Provide the next terms of a number pattern  Provide missing terms of a number pattern |
| M-07-109 | Variables | Identify variables as unknown values  Identify the variable in a given equation and find its value |
| M-07-110 | Solving for a variable | Find the value of a variable in simple algebraic expressions involving addition and subtraction |
| 2 | Algebra | identify coefficients and variables (for example, 2x) a number multiplied by an unknown value  identify and understand how to combine like terms  simplify simple algebraic expressions | M-07-111 | Coefficients | Identify the coefficient in an expression as a number multiplied by a variable, or unknown value |
| M-07-112 | Solving for a variable with a coefficient | Find the value of a variable in simple algebraic expressions involving multiplication |
| M-07-113 | Like terms | Identify like terms as those with the same variable and power |
| M-07-114 | Combining like terms | Group and combine like terms in a given algebraic expression |
| M-07-115 | Simplifying algebraic expressions | Simplify simple algebraic expressions |
| 3 | Algebra | Factorise simple algebraic expressions  construct and solve simple linear equations in one variable | M-07-116 | Multiplying algebraic expressions | Multiply a constant by an algebraic expression |
| M-07-117 | Dividing algebraic expressions | Divide algebraic expressions |
| M-07-118 | Factorization | Identify common factors in an algebraic expression  Divide common factors from an algebraic expression |
| M-07-119 | Introduction to linear equations | Identify and solve linear equations in one variable |
| M-07-120 | Solving linear equations | Solve linear equations in one variable |
| 4 | Algebra | read, write and plot co-ordinates in all four quadrants of the Cartesian plane  relate the x- and y-axis to variables in equations, identify that we use the Cartesian plane to graph equations (no need to do graphing now) | M-07-121 | Introduction to the Cartesian plane | Draw a Cartesian plane  Identify the *x*- and *y*-axes and label them with positive and negative values  Identify that this *x* and *y* are often variables in linear equations, and the Cartesian plane is used to graph equations |
| M-07-122 | Identifying points on the Cartesian plane | Identify points in each quadrant of a Cartesian plane and write them in the form |
| M-07-123 | Plotting points in the first quadrant of the Cartesian plane | Plot given points in the first quadrant of the Cartesian plane |
| M-07-124 | Plotting points in all quadrants of the Cartesian plane | Plot given points in any quadrant of the Cartesian plane |
| M-07-125 | Practice with the Cartesian plane | Draw or identify any given point on the Cartesian plane |
| 5 | Statistics | STATISTICS  collect, organise and display discrete and continuous data using pictograms, lists, tables, bar charts and line graphs | M-07-126 | Data collection | Collect data from class members and display it with tally marks and pictograms |
| M-07-127 | Lists and tables | Organise and display collected data in a list and a table |
| M-07-128 | Creating bar charts | Display collected data in a bar chart |
| M-07-129 | Interpreting bar charts | Make comparisons and draw conclusions from bar charts |
| M-07-130 | Creating line graphs | Display collected data in a line graph |
| 6 | Statistics | extract and interpret discrete and continuous data using pictograms, lists, tables, bar charts and line graphs;  extract and interpret discrete data from pie charts;  solve multi-step story problems involving data | M-07-131 | Interpreting line graphs | Make comparisons and draw conclusions from line graphs |
| M-07-132 | Pie chart | Interpret information from a pie chart |
| M-07-133 | Comparing graphs and charts | Identify that bar charts and line graphs are used to compare different amounts and pie charts are used to compare parts of the whole  Create an appropriate chart for a set of data |
| M-07-134 | Community survey: collecting data | Collect information about the community and organize it in a table |
| M-07-135 | Community survey: displaying data | Create graphs and charts to display information about the community |
| 7 | Statistics | calculate the mode, median, mean and range of a given set of discrete and continuous data (review), presented in various formats (list, chart) | M-07-136 | Mean and median | Calculate the mean and median of a list of data generated by the class  Interpret mean and median |
| M-07-137 | Mode and range | Calculate the mode and range of a list of data generated by the class  Interpret mode and range |
| M-07-138 | Statistical calculations from a list | Calculate the mean, median, mode, and range of data from a list |
| M-07-139 | Statistical calculations from a bar chart | Calculate the mean, median, mode, and range of data from a bar chart |
| M-07-140 | Statistics story problems | Solve story problems involving mean, median, mode, and range |
| 8 | Probability | PROBABILITY  use the language of probability to state the chance of events occurring in everyday life;  demonstrate an understanding of probability, including conducting simple probability experiments | M-07-141 | Introduction to probability | Identify that probability describes the chance of something happening  Discuss the probability of an event happening in words |
| M-07-142 | Probability experiments | Conduct simple probability experiments  Use probability terms such as ‘experiment,’ ‘outcome’ and ‘event’ |
| M-07-143 | Certain and uncertain probability | Identify that a probability of 1 means that an event is certain, and a probability of 0 means that an event is impossible |
| M-07-144 | Likely and unlikely events | Compare how likely different events are and rank them from unlikely to likely |
| M-07-145 | The language of probability | Use probability vocabulary in everyday statements |
| 9 | Probability | solve simple problems involving the probability of a single event | M-07-146 | Expressing probability as a fraction | Express the probability of an event happening as a fraction |
| M-07-147 | Probability fraction problems | Solve simple probability problems with fractions |
| M-07-148 | Probability as a percent | Interpret probability statements involving percent |
| M-07-149 | Solving probability story problems | Solve story problems involving the probability of an event happening |
| M-07-150 | Writing probability story problems | Write story problems involving the probability of an event happening |
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