## CONTENT DISTRIBUTION

## SUBJECT: MATHEMATICS

Class: Primary 5
Number of period per week: 8 periods

## Term 1

UNIT 1: Reading, writing, comparing and calculating whole numbers up to 1000000 ( 32 periods )
Key unit Competence: Read, write, compare and make calculations on whole numbers up to 1 000000.

| Week | Content | Number of Periods |
| :---: | :---: | :---: |
| 1 | Introductory activity 1 | 1 |
|  | Reading and writing numbers up to $1,000,000$ in words | 1 |
|  | Forming and reading numbers by the use of number cards | 1 |
|  | Reading and writing numbers up to 1,000,000 in figures | 1 |
|  | Place Values of whole Numbers up to 7 digits | 1 |
|  | Comparing Numbers using <, > or = | 2 |
|  | Addition of 3 or more whole numbers of 7 digits without carrying | 1 |
| 2 | Using a local abacus to add whole numbers | 1 |
|  | Addition of 3 or more whole numbers of 7 digits with carrying | 1 |
|  | Solve real life problems involving addition of numbers | 1 |
|  | Subtraction of 2 numbers of 7 digits without borrowing | 1 |
|  | Subtraction of 2 numbers of 7 digits with borrowing | 1 |
|  | Solve real life problems involving subtraction | 1 |
|  | Multiplying whole numbers by a 3 digits number | 2 |
| 3 | Product of a 3 digit number by 5 and quick multiplication by 5 | 2 |
|  | Product of a 3 digit number by 90 and quick multiplication by 9 | 1 |
|  | Product of a 3 digit number by 11 and quick multiplication by 11 | 1 |
|  | Product of a 3 digit number by 19 and quick multiplication by 19 | 1 |
|  | Product of a 3 digit number by 25 and quick multiplication by 25 | 1 |
|  | Product of a 3 digit number by 49 and quick multiplication by 49 | 1 |
|  | Product of a 3 digit number by 99 and quick multiplication by 99 | 1 |
| 4 | Solve real life problems involving multiplication | 1 |
|  | Division without a remainder of a 3 digits number by a 2 digit number | 2 |
|  | Division by a 2 digit number with a Remainder | 2 |
|  | Solve real life problems involving addition, subtraction, multiplication or division of whole numbers | 2 |
|  | End unit assessment | 1 |
| UNIT 2: Addition and subtraction of integers (16 periods) |  |  |
| Key Unit Competence: Solve problems related to comparing, ordering, and finding the distance between negative and positive integers |  |  |
| Week | Content | Number of Periods |
| 5-6 | Introductory activity 2 | 1 |
|  | Location of positive and negative numbers on a number line | 1 |


|  | Comparing integers using a number line and symbols <, > or = | 2 |
| :---: | :---: | :---: |
|  | Ordering integers using a number line and symbols < or > | 1 |
|  | Addition of integers: Using a counters and a number line | 1 |
|  | Addition of integers by calculations | 2 |
|  | Subtraction of integers: using counters and a number line | 1 |
|  | Subtraction of integers: without using counters and a number line (calculations) | 2 |
|  | Additive inverses (opposite) of numbers | 2 |
|  | Solve problems involving addition and subtraction of integers. | 2 |
|  | End unit assessment | 1 |
| UNIT 3: Prime factorization and divisibility tests (16 periods) |  |  |
| Key unit Competence: Prime factorize, show the rule of divisibility tests less than 13, find the Lowest Common Multiple (LCM) and the Greatest Common Factor (GCF) of whole numbers |  |  |
| Week | Content | Number of Periods |
| 7 | Introductory activity 3 | 1 |
|  | Prime factorization of numbers and its uniqueness | 1 |
|  | Using indices as short form for repeated factors | 1 |
|  | Calculation of the Lowest Common Multiple (LCM) | 1 |
|  | Calculation of Greatest Common Factors (GCF) | 1 |
|  | Divisibility test for 2 | 1 |
|  | Divisibility test for 3 | 1 |
|  | Divisibility test for 4 | 1 |
| 8 | Divisibility test for 5 | 1 |
|  | Divisibility test for 6 | 1 |
|  | Divisibility test for 8 | 1 |
|  | Divisibility Test for 9 | 1 |
|  | Divisibility Test for 10 | 1 |
|  | Divisibility test for 11 | 1 |
|  | Divisibility test for 12 | 1 |
|  | End unit assessment | 1 |
| UNIT 4: Equivalent fractions and operations (24 periods) |  |  |
| Key unit Competence: Add, subtract and find equivalent fractions |  |  |
| Week | Content | Number of Periods |
| 9 | Introductory activity 4 | 1 |
|  | Exploring and comparing fractions using models |  |
|  | Illustration of equivalence of fractions using models | 1 |
|  | Concept of equivalent fractions using models. | 1 |
|  | Determination of equivalent fractions | 1 |
|  | Calculation of equivalent fractions | 1 |
|  | Addition of fractions with different denominators using models or circle set fractions | 1 |


|  | Subtraction of fractions with different denominators using models or circle set fractions | 1 |
| :---: | :---: | :---: |
| 10-11 | Addition of fractions with different denominators using equivalent fractions | 1 |
|  | Subtraction of fractions with different denominators using equivalent fractions | 1 |
|  | Addition of fractions with different denominators using LCM | 2 |
|  | Subtraction of fractions with different denominators using LCM | 2 |
|  | Addition of more fractions with different denominators | 1 |
|  | Subtraction of more fractions with different denominators | 1 |
|  | Addition of mixed numbers and fractions with different denominators | 1 |
|  | Subtraction of mixed numbers and fractions with different denominators | 1 |
|  | Solving Word problems involving addition of fractions | 2 |
|  | Solving Word problems involving subtraction of fractions | 2 |
|  | End unit assessment | 2 |
| UNIT 5: Multiplication and division of decimals ( $\mathbf{8 / 2 4}$ periods) |  |  |
| Key Unit Competence: Multiply, divide and compare decimal numbers up to 3 decimal place |  |  |
| Week | Content | Number of Periods |
| 12 | Introductory activity 5 | 1 |
|  | Illustration of the concept of decimal fractions through examples | 1 |
|  | Place value of decimals | 2 |
|  | Comparing and ordering decimal numbers using number cards | 2 |
|  | Conversion of fractions to decimals | 2 |
| 13 | EXAMS |  |

## TERM 2:

UNIT 5: Multiplication and division of decimals ( $\mathbf{1 6} / 24$ periods
Key Unit Competence: Multiply, divide and compare decimal numbers up to 3 decimal places

| Week | Content | Number of <br> Periods |
| :--- | :--- | :--- |
| $2-3$ | Conversion of decimals to fractions | 2 |
|  | Matching fractions to decimals | 2 |
|  | Multiplication of decimal fractions | 2 |
|  | Division of decimal fractions | 2 |
|  | Division of decimal fractions | 2 |
|  | Mixed operations for multiplication and division | 2 |
|  | Problems involving multiplication of decimals | 2 |
|  | Problems involving multiplication and division of decimals | 1 |
|  | End unit assessment | 1 |

UNIT 6: Application of direct proportions ( 16 periods)
Key Unit Competence: Apply direct proportions in a practical context

| Week | Content | Number of Periods |
| :---: | :---: | :---: |
| 4-5 | Introduction activity 6 | 1 |
|  | Concept of direct proportion | 2 |
|  | Ratios and direct proportion | 2 |
|  | Constant of proportionality and the application of direct proportion in real life | 2 |
|  | scale drawing and direct proportion | 3 |
|  | Problems involving ratios | 2 |
|  | Problems involving direct proportion | 2 |
|  | End unit assessment | 2 |
| UNIT 7: Solving problems involving measurements of length, capacity and mass ( 8 periods) |  |  |
| Key Unit Competence: Solve problems involving measurements of length, capacity, mass and calculating number of intervals |  |  |
| Week | Content | Number of Periods |
| 6 | Introductory activity 7 | 1 |
|  | Revision on problems on length, capacity and mass | 1 |
|  | Number of intervals (fixed distance) between objects on an open line | 2 |
|  | Finding the number of intervals on a closed line | 2 |
|  | Interpreting decimal representations up to 3 decimal places | 1 |
|  | End unit assessment | 1 |
| UNIT 8: Solving problems involving time intervals (24 Periods) |  |  |
| Key Unit Competence: Solve real life problems that involve finding time intervals and conversion of units |  |  |
| Week | Content | Number of Periods |
| 7 | Introductory activity 8 | 2 |
|  | Converting hours into minutes | 2 |
|  | Converting minutes into hours | 2 |
|  | Converting hours into seconds | 2 |
| 8-9 | Changing days into hours | 3 |
|  | Changing hours into days | 3 |
|  | Finding time intervals or time taken by an event: Using clock face, watch and calendar | 5 |
|  | Real life problems that involve addition and Subtraction of time | 4 |
|  | End unit assessment | 1 |
| UNIT 9: Money and its financial applications (24 Periods) |  |  |
| Key Unit Competence: Explain money and its financial applications |  |  |
| Week | Content | Number of Periods |


| $10-11$ | Introductory activity | 1 |
| :--- | :--- | :--- |
|  | Uses and role of money in our lives | 2 |
|  | Sources of money | 2 |
|  | Budgeting | 2 |
|  | Setting priorities | 1 |
|  | Establishing a budget of what comes in and what goes out <br> and setting priorities of a family | 2 |
|  | Ways of transferring money: ATM, cheques, cash, money transfer, and <br> using a mobile phone | 3 |
|  | Saving (protecting) money | 3 |
| 12 | Borrowing money (borrowing is not free). | 3 |
|  | Different currencies and converting currencies | 3 |
|  | End unit assessment | 2 |
| 13 | Exams |  |

TERM 3
UNIT 10: Sequences that include whole numbers, fractions and decimals (24 periods)
Key Unit Competence: Write sequences of whole numbers, fractions and decimals

| Week | Content | Number of Periods |
| :---: | :---: | :---: |
| 1 | Introductory activity 10 | 1 |
|  | Ordering whole numbers according to their size in increasing order | 1 |
|  | Ordering whole numbers according to their size in decreasing order | 2 |
|  | Introduction to simple sequences | 1 |
|  | Simple sequences that include fractions | 2 |
|  | Forming different number patterns by using charts/flash cards, number cards or fraction cards | 1 |
| 2 | Simple sequences that include decimals | 2 |
|  | Sequence with constant differences | 3 |
|  | Sequences with constant ratios | 3 |
| 3 | Sequences with regularly changing differences | 3 |
|  | Sequences where the difference is geometric | 3 |
|  | End unit assessment | 2 |

## UNIT 11: Drawing and constructing of angles (24 Periods)

Key Unit Competence: Draw and construct different angles

| Week | Content | Number of <br> Periods |
| :--- | :--- | :--- |
| 4 | Introductory activity 11 | 1 |
|  | Construction of different angles with a protractor | 1 |
|  | Bisection of angles (Using folding) | 1 |
|  | Bisecting angles using a pair of compasses and a ruler | 1 |
|  | Constructing $90^{\circ}, 45^{\circ}$ and $22.5^{\circ}$ angles | 1 |
|  | Constructing $60^{\circ}, 30^{\circ}$ and $15^{\circ}$ angles | 1 |
|  | Constructing angles $120^{\circ}$ and $150^{\circ}$ angles | 2 |
| $5-6$ | Identify different lines and angles formed on real objects | 2 |


|  | Perpendicular lines | 1 |
| :---: | :---: | :---: |
|  | Parallel lines, intersecting lines and transversals | 2 |
|  | Properties related to angles formed by intersecting lines | 2 |
|  | Angle properties of parallel lines: Corresponding angles, | 2 |
|  | Angle properties of parallel lines: Alternate angles | 2 |
|  | Angle properties of parallel lines: Co-interior angles, | 2 |
|  | Sum of Angles of a triangle | 2 |
|  | End unit assessment | 1 |
| UNIT 12: Interpreting and constructing scale drawings (8 Periods) |  |  |
| Key Unit Competence: Interpret and construct scale drawings |  |  |
| Week | Content | Number of Periods |
| 7 | Introductory activity 12 | 1 |
|  | Concept of scale drawing through examples of actual distances/sizes and the distance/size on a map | 1 |
|  | Finding scale: Establishing the scale of a real object to be drawn on a sheet of paper | 1 |
|  | Construction of scale drawings | 1 |
|  | Finding actual distance | 1 |
|  | Finding the drawing length | 1 |
|  | Real life problems involving scale drawings | 1 |
|  | End unit assessment | 1 |
| UNIT 13: Calculating circumference of a circle and volume of cuboids and cubes (16 Periods) |  |  |
| Key Unit Competence: Calculate circumference of a circle and volume of cuboids and cubes |  |  |
| Week | Content | Number of Periods |
| 8 | Introductory activity 13 | 1 |
|  | Circumference of circular objects | 1 |
|  | Finding the number pi ( $\pi$ ) | 2 |
|  | Cubes and cuboids and their properties | 2 |
|  | Nets of cubes and cuboids | 2 |
| 9 | Calculating the volume of cubes and cuboids | 2 |
|  | Finding the area of a face of a cuboid | 2 |
|  | Finding one dimension of a cuboid | 1 |
|  | Find the height of a cuboid given its volume and base area | 2 |
|  | End unit assessment | 1 |
| UNIT 14: Statistics (24 periods) |  |  |
| Key Unit Competence: Collect data, represent and interpret it in order to answer a question or explore a hypothesis |  |  |
| Week | Content | Number of Periods |
| 10-11 | Introductory activity | 2 |
|  | Definition and examples of quantitative data | 3 |
|  | Definition and examples of Discrete data | 2 |


|  | Definition and examples of Continuous data | 2 |
| :---: | :---: | :---: |
|  | Record data using tally and tables | 3 |
|  | Representing data using bar charts | 3 |
|  | Interpreting bar charts to draw a conclusion | 1 |
| 12 | Representing data using line graphs | 3 |
|  | Interpreting line graphs to draw a conclusion | 3 |
|  | End unit assessment | 2 |
| UNIT 15: Probability (8 periods) |  |  |
| Key Unit Competence: Conduct experiments to decide how likely something is to happen |  |  |
| Week | Content | Number of Periods |
| 13 | Introductory activity | 1 |
|  | Representing the outcomes of a die tossed many times | 1 |
|  | Vocabulary of chance: experiment, outcomes, equal chance, certain, impossible, equally likely, less likely, likely, more likely. | 1 |
|  | Event and related concepts: certain event, impossible event, uncertain event | 2 |
|  | Conducting experiments, predict the outcomes and decide how likely something is to happen (use less likely or more likely). | 2 |
|  | End unit assessment | 1 |
| 14 | Exams |  |

