**SCHEME OF WORK OF MATHEMATICS**

**THE CITY OF KIGALI**

**DISTRICT : GASABO**

**ACADEMIC YEAR: 2022-2023**

**SUBJECT: MATHEMATICS**

**CLASS: PRIMARY FOUR (P4)**

**TEACHER'S NAME: ……………………………………………………… SCHOOL……………………………………………………….. SECTOR……………………………………………..**

**NUMBER OF PERIODS PER WEEK: 8 PERIODS**

**FIRST TERM**

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| **DATES AND WEEKS** | **UNIT TITLE** | **LESSON TITLE** | **LEARNING OBJECTIVES** | **METHODS AND TECHNIQUES** | **RESOURCES** | **OBSERVATION** |
| **WEEK 1**  **26-30/09/2022**  **WEEK 2**  **03-07/10/2022**  **WEEK 3**  **10-14/10/2022**  **WEEK 4**  **17-21/10/2022**  **WEEK 5**  **24-28/10/2022**  **WEEK 6**  **31/10-04/11/2022** | **UNIT 1**  Mathematical operations on whole numbers up to 100000 | **LESSON 1:**  Reading and writing in words ( 3 periods)  **LESSON 2:**  Reading and writing in figures  Place value of numbers up to five digits  Comparing numbers using <,>,= (3)  **LESSON 3:**  Addition of 2 or more whole numbers , with or without carrying, whose sum does not exceed 100000(1 period)  Addition of 2 or more whole numbers , with or without carrying, whose sum does not exceed 100000(3 period)  **LESSON 4:**  Subtraction of whole numbers between 0 and 100,000 with or without borrowing (4)  LESSON 5:  Multiplication whole numbers by two digit numbers (5)  **LESSON 6:**  Product of a 2 digit numbers by 10, 100,1000, 10,000 (2)  **LESSON 7:**  Multiply numbers using quick multiplication ( 2 period)  **LESSON 8**:  Divide by single digit number ( 5 period)  **LESSON 9:**  Solve mathematical problems involving addition, subtraction, multiplication or division of numbers (7 period )  **LESSON 10:**  Summative evaluation ( 1 period) | **KNOWLEDGE AND UNDERSTANDING**   * name all place values through to 100000, in spoken and written form * Identify the place values in written numerals. * Read written numerals correctly in English * Explain the process of addition of 2 numbers of 5 digits with or without carrying * Explain the process of subtraction 2 numbers of 5 digits or more with or without borrowing * Explain process of multiplication of 2 numbers or more with or without carrying * Explain the process of division of 2 digit numbers with or without remainders * Explain the process of solving mathematical word problems involving 4 operations on 2 or more numbers of 2 digits or more.   **SKILLS**   * Use place value to compare numbers of any size * Correctly translate between written numerals and spoken English * Apply comparison of numbers in daily life. * Carry out addition and subtraction of 2 or more whole numbers. * Carry out multiplication of 2 or more whole numbers whose product does not exceed 100,000 * Solve daily life mathematical problems involving addition , subtraction, multiplication or division   ATTITUDES AND VALUES   * Developing personal confidence in the use of numbers * Appreciate the importance of addition, subtraction, multiplication and division in daily life. * Appreciate the importance of working out numbers quickly and accurately   **KEY UNIT COMPETENCE** :  To be able to classify animals into their main groups based on external features | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan school (page:5-25) |  |
| UNIT 2:  Positive and negative integers. | **LESSON 1:**  The meaning of negative and positive numbers in contexts like temperature, buying and selling , etc ( 2 period)  **LESSON 2:**  Location of positive and negative numbers on a number line.( 2)  **LESSON 3**:  Comparison / ordering of negative and positive numbers using a number line ( 2 period)  **LESSON 4:**  Solving problems involving integers, including computing distance between integers:  -if two numbers are on the same side of zero ,the distance between them is the difference of their magnitudes (1)  **LESSON 5:**  Solving problems involving integers, including computing distance between integers:   * If two numbers are on opposite sides of zero, the distance between them is the sum of their magnitudes (1)   **LESSON 6:**  Summative evaluation ( 1 period) | **KNOWLEDGE AND UNDERSTANDING**   * Locate positive and negative numbers on the number line * Explain that when two numbers are placed on the number line , the number to the right is greater than the number to the left,   **SKILLS**   * Locate positive and negative numbers on the number line * Apply knowledge of position on a number line to determine which of two number is greater * Compute distance between integers.   **ATTITUDES AND VALUES**   * Appreciate the importance of using positive and negative numbers in practical contexts.   **KEY UNIT COMPETENCE** :  To be able to solve problems related to comparing, ordering, and finding the distance between negative and positive integers | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools  (page:30-37) |  |
| UNIT 3  Classify numbers by their properties | **LESSON 1:**  Odd, even, square numbers, square root, prime numbers, multiples of numbers, factors of numbers( period 1)  LESSON 2:  Squares and exact square roots (1)  **LESSON 3:**  Problems involving square roots (1)  **LESSON 4:**   * Calculating the LCM (1)   **LESSON 5:**  Summative evaluation ( 1 period) | **KNOWLEDGE AND UNDERSTANDING**   * Explain the meaning of odd, even, square numbers, square root, prime numbers, factors of numbers. * List numbers in each family and explain the properties of different families of numbers * State the method/steps for calculating the lowest common multiple (LCM )   **SKILLS**   * Classify numbers as odd, even, square numbers, prime numbers, multiples of a given number * Calculate the LCM of two numbers * Calculate the square of a number and find the square root of a square number ≤ 100   **ATTITUDES AND VALUES**   * Appreciate the importance of using square and square roots * Being cooperative and displaying a team work spirit * Demonstrate creativity in problem solving * Being attentive   **KEY UNIT COMPETENCE** :  Be able to classify numbers flexibly, seeing them as belonging to various families | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools.(Page 38-45) |  |
| UNIT 4  Fractions of same denominator | **LESSON 1:**  The meaning of fractions( 2 PERIOD) | **KNOWLEDGE AND UNDERSTANDING**   * Read and write fractions * Explain the meaning of numerator and denominator in the size of a fraction * Explain and show how adding or subtracting same denominator fractions is like adding any other unit: meters, grams * Explain how to multiply fractions by whole numbers and by fractions. * Explain how divide fractions by whole numbers and by fractions * Explain the process of solving problems involving addition, subtraction, multiplication, and division of fractions   **SKILLS**   * Compare two fractions with the same denominator * Add and subtract fractions that have the same denominator * Apply the knowledge of fractions to solve mathematical problems that involve operation of fractions   **ATTITUDES AND VALUES**   * Appreciate the importance of accuracy out operations on fractions * Develop personal confidence in carrying out operations on fractions * Develop the spirit of sharing   **KEY UNIT COMPETENCE**  Explain the meaning of fractions, add and subtract same –denominator fractions multiply and divide fractions accurately. | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools (page46-63) |  |

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| **WEEK 7**  **07-11/11/2022**  **WEEK 8**  **14-18/11/2022**  **WEEK 9**  **21-25/11/2022**  **WEEK 10**  **28/11-02/12/2022**  **WEEK 11**  **05-09/12/2022**  **WEEK 12**  **12-16/12/2022**  **WEEK 13**  **19-23/12/2022**  ***SECOND***  **WEEK 1**  **09-13/01/2023**  **WEEK 2**  **16-20/01/2023**  **WEEK 3**  **23-27/01/2023**  **WEEK 4**  **30/01-03/02/2023**  **WEEK 5**  **06-10/02/2023**  **WEEK 6**  **13-17/02/2023**  **WEEK 7**  **20-24/02/2023**  **WEEK 8**  **27/02-03/03/2023**  **WEEK 9**  **06-10/03/2023**  **WEEK 10**  **13-17/03/2023**  **WEEK 11**  **20-24/03/2023**  **WEEK 12**  **27-31/03/2023**  ***THIRD***    **WEEK 1**  **17-21/04/2023**  **WEEK 2**  **24-28/04/2023** | :  UNIT 5  Decimal fractions/ numbers  REVISION  EXAMS  CORRECTION  ***TERM***  CORRECTION | **LESSON 2:**  Read , write , and compare fractions with the same denominator, including mixed fractions ( 2 period)  **LESSON 3:**  Addition of fraction with the same denominator (1)  **LESSON 4:**  Subtraction of fraction with the same denominator (1)  **LESSON 5:**  Problems involving addition and subtraction of fraction ( 3 period)\_  Problems involving addition and subtraction of fraction ( 1 period  **LESSON 6:**  Multiplication of fraction by whole numbers. ( 2period)  **LESSON 7**  Multiplication of fraction by fractions, conceptually ( not an arbitrary rule) ( 2 period )  **LESSON 8:**  Division of fractions by a whole number ( 2 period )  Division of fractions by a whole number ( 2 period )  **LESSON 9**:  Problems involving multiplication and division of fractions  Problems involving multiplication and division of fractions  **LESSON 10**:  Summative evaluation ( 1 period)  **LESSON 1:**  The conce:3 of decimal fractions through ‘’zooming in’’ on the number line( period 2)  **LESSON: 2**  Place value of decimals up to 2 decimal places (1)  **LESSON :3**  Comparing decimal numbers ( period 1)  **LESSON: 4**  Addition of decimal fractions ( 1)  Addition of decimal fractions ( 1)  **LESSON :5**  Subtraction of decimal fractions ( period 2)  **LESSON :6**  Problems involving addition and subtraction of decimals( period 4)  **LESSON: 7**  Summative evaluation ( 1 period)  OF FIRST TERM | **KNOWLEDGE AND UNDERSTANDING**   * Explain the concept of decimal numbers using place values up to 2 decimal places * Correctly read and write decimal numbers in figures and in words * Identify the place values in written decimals   **SKILLS**   * Compare 2 or more decimal numbers using <.>, = * Correctly translate between decimals and spoken English * Carry out addition or subtraction of decimal numbers up to 2 2 decimal places * Apply decimal concept in solving daily life math problems   **ATTITUDES AND VALUES**   * Develop personal confidence in the use of decimal numbers * Appreciate the importance of decimal fractions in comparing and sharing   **KEY UNIT COMPETENCE**:  Add, subtract and compare decimal numbers using place values of decimals up to 2 decimal places  EXAMINATION | Maths game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions |  |  |
| UNIT 6  Length measurements | **LESSON:1**  Estimate different small distances ( period 1)  **LESSON: 2**  Measure the length and perimeter of various objects in different unit ( 3 period)  **LESSON: 3**  Reading and writing measurements of length : km; dam, m, dm ,cm ,mm (1)  **LESSON :4**  Addition and subtraction of length measurement of whole and decimal numbers up to 2 decimal place in meaningful contexts( 1):  Addition and subtraction of length measurement of whole and decimal numbers up to 2 decimal place in meaningful contexts( 3):  **LESSON: 5**  Conversion of length measurements with application problems in meaningful contexts ( 4)  **LESSON: 6**  Summative evaluation ( 1 period) | **KNOWLEDGE AND UNDERSTANDING**   * Build on knowledge and understanding of measurement of length * State different units of length measurements * Explain the relationship between the units of length measurements * Explain the perimeter of a shape as the distance around it   **SKILLS**   * Appropriately estimate length and provide a justification * Select and use appropriate instruments /tools/materials to measure lengths, using and interpreting scales correctly * Read and write units of length measurements * Accurately convert length measurements between different units * Apply the knowledge of addition or subtraction and multiplication by whole number in solving mathematical problems involving length measurements.   **ATTITUDES AND VALUES**   * Appreciate the importance of metric measures in daily life * Recognize the importance of using measuring tools correctly.   **KEY UNIT COMPETENCE**:  Convert between units of length and apply them in solving mathematical problems related to daily life situations, including perimeters | Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandans schools( page 74-89)  Evaluation and written test of open and closed questions | Meter, decameter, ruler, rope, sticks, charts |
| UNIT 7  Capacity measurements | **LESSON:1**  Estimation of the capacity of difference object(1)  **LESSON: 2**  Measuring different capacities in liters (1)  LESSON 3:  Read and write measurement of capacity from hl to ml (1)  **LESSON :4**  Subtraction and addition of capacity measurement of whole and decimal numbers up to 2 decimal places in meaningful contexts(1)  **LESSON: 5**  Conversation of capacity measurements, with application problems in meaning full contexts (2)  **LESSON: 6**  Summative evaluation (1) | **KNOWLEDGE AND UNDERSTANDING**   * Distinguish the capacity of different liquid containers through observation * State the different units of capacity measurements * Explain the relationship between units of capacity measurements * Show the process of solving mathematical problems involving capacity measurement   **SKILLS**   * Estimate the capacity of a liquid container through observation * Select and use an appropriate tool/ material to measure the capacity of different liquid containers * Correctly read and write units of capacity measurements * Accurately convert different capacity measurements * Apply the knowledge of addition or subtraction and multiplication by a whole number in solving mathematical problems involving capacity measurements   **ATTITUDES AND VALUES**   * Show an ability to properly us arrange of materials to measure different liquids in daily life * Be honest and trustworthy when measuring different capacities * Show respect to one another when working in groups   **KEY UNIT COMPETENCE:**  Convert between units of capacity and apply them in solving mathematical problems related to daily life situations | Evaluation  procedures: written: general test of open and closed questions | Maths game, demonstration, group work, individual work , brain storming , question and answer method | bottles of different capacities, bucket, charts( wit conversation table, worked examples on capacity measurements) textbooks |
| UNIT 8  Mass measurement | **LESSON :1**  Estimating mass of different things  Measuring different s object ( 1 period )  **LESSON :2**  Units of mass measurements  Reading and writing measurements of mass from tone to milligram(1)  **LESSON: 3**  Addition and subtraction of mass measurements of whole and decimal numbers( 2)  **LESSON: 4**  Conversion of mass measurement, with application problems in meaningful contexts (2)  **LESSON: 5**  Summative evaluation (1) | **KNOWLEDGE AND UNDERSTANDING**   * Distinguish the mass of different containers through observation * State the different units of mass measurements * Explain the relationship between units of mass measurements * Show the process of solving mathematical problems involving mass measurement   **SKILLS**   * Estimate the mass of a container through observation * Select and use an appropriate tool/ material to measure the mass of different l containers * Correctly read and write units of mass measurements * Accurately convert different mass measurements * Apply the knowledge of addition or subtraction and multiplication by a whole number in solving mathematical problems involving mass measurements   **ATTITUDES AND VALUES**   * Show an ability to properly us arrange of materials to measure different mass in daily life * Be honest and trustworthy when measuring different mass * Show respect to one another when working in groups * Appreciate the importance mass measurement in daily life situation   **KEY UNIT COMPETENCE**:  Convert between units of mass and apply them in solving | Evaluation  procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools page(100-106)  Math’s game, demonstration, group work, individual work , brain storming , question and answer method | Different scales( beam balance baby scale) ,… conversion table , textbooks |
| UNIT 9  Area and land measurement | **LESSON: 1**  Concept of unit of area /land measurement(2)  **LESSON :2**  Reading and writing measurements of area /land (1)  **LESSON3:**Relationship between area and land measurements(2)  **LESSON: 4**  Understand area as the space enclosed by a boundary (1)  Understand area as the space enclosed by a boundary (1)  **LESSON :5**  Conversion of area and land measurements (2)  **LESSON: 6**  Area of a rectangle including a square (3)  **LESSON :7**  Area of a rectangle piece of land ( 2D shapes ) ( 1)  Area of a rectangle piece of land ( 2D shapes ) ( 1)  **LESSON: 8**  Addition and subtraction of area /land measurement of whole and decimal numbers up to 2 decimal places in meaningful contexts (4)  **LESSON:9**  Summative evaluation(1) | **KNOWLEDGE AND UNDERSTANDING**   * Explain the concept of square units * State the unit of area measurements * Establish the relationship between the unit of area measurements * List the unit of area and land measurements in ascending and descending order * Correctly read and write units of area measurements * Explain the process of adding and subtracting area measurements * Understand the concept of land units * State the unit of land * Establish the relationship between the unit of land and area measurements * Correctly read and write units of land measurement * Explain the process of adding , subtracting or converting land measurement.   **SKILL**   * Practically differentiate the measurements of area from the measurement of length * Convert ,add, subtract or compare area or land measurement * Solve mathematical problems related to finding the surface area of different shapes and plots of land * Calculate the area as a space enclosed by a boundary without using the formula   **ATTITUDES AND VALUES**   * Appreciate the importance of measurement of area and land in daily life * Show how to properly use different area and land measurement in daily life situation   **KEY UNIT COMPETENCE:**  To be able to understand area as the 2D space enclosed by a boundary, and use square and land units in solving mathematics problems | Evaluation  procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools page (107-115)  Ruler, tape measure, rope, sticks, squared paper , manila cards , charts, textbooks |  |
| UNIT 10  Time  REVISION +  EXAMINATION  CORRECTION    ***TERM***  CORRECTION  UNIT 11  Money and its financial application | **LESSON: 1**  Reading and telling accurately using a calendar, digital and clock face. ( 1 period)  **LESSON: 2**  Write the time using ante meridiem to mean before noon (AM) and post meridiem to mean after noon (PM) (2)  **LESSON :3**  Conversion of time seconds into minutes, minutes into hours and vice versa. ( 3 period)  **LESSON :4**  Solve problems involving time, minutes and hours , dates and hours . (2)  Solve problems involving time: minutes and hours , dates and hours . (1)  **LESSON :5** Summative evaluation  OF SECOND  **LESSON; 1**  Rwandan currency denomination and changing them: coins and notes(1)  **LESSON; 2**  Simple budgeting :   * Sources of money * Uses of money * Planning according to needs and wants ( 3)   **LESSON: 3**  Problems involving buying and selling:   * Cost price * Selling price * Profit/ loss ( 1 period)   Problems involving buying and selling:   * Cost price * Selling price * Profit/ loss ( 2 period)   **LESSON: 4**  Sommative evaluation | **KNOWLEDGE AND UNDERSTANDING**   * Recognize different unit of time * Explain the process of solving mathematical problems involving time * Explain the meaning of am and pm   **SKILLLS**   * Read and tell the time accurately * Apply acquired knowledge to convert between units of time * Correctly write units of time   **ATTITUDES AND VALUES**   * Appreciate value of time management in daily situations   **KEY UNIT COMPETENCE**:  To be able to tell, write and convert time appropriately  TERM EXAMS  **KNOWLEDGE AND** **UNDERSTANDING**   * Recognize and identify the various denominations of Rwandan currencies * State different ways of using money to meet the needs of families. * Explain the process of simple budgeting based on priorities   **SKILLS**   * Classify needs and wants * Carry out calculation in simple business transactions * Solve problems involving buying and selling   ATTITUDES AND VALUES   * Appreciate the importance of money in daily life situations * Show concern of using money honestly   **KEY UNIT COMPETENCE**:  To be able to understand money and its financial application | Primary learner’s mathematics for Rwandan schools page( 128-135)  procedures: written: general test of open and closed questions | Real money, pictures and drawings of Rwandan currencies, empty tins, soap, boxes and pens to build a classroom shop. |  |

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| **WEEK 3**  **01-05/05/2023**  **WEEK 4**  **08-12/05/2023** |  |  |  |  |  |  |
| UNIT 12  Number patterns | **LESSON: 1**  Arrange whole numbers in decreasing and increasing order(2)  **LESSON: 2**  Arithmetic progression ( 2 period)  Arithmetic progression ( 2 period  **LESSON :3**  Geometric progression ( 4)  **LESSON :4**  Summative evaluation(1) | **KNOWLEDGE AND UNDERSTANDING**   * Explain how to order whole numbers according to their size in increasing and decreasing order * Explain the meaning of arithmetic and geometric progression   **SKILLS**   * Determine the clue or pattern for a given arithmetic progression/geometric progression * Differentiate between arithmetic progression and geometric progression * Arrange whole numbers in different orders.   **ATTITUDES AND VALUES**   * Appreciate the importance of orderliness in daily life * Appreciate the sprite of hard work and self confidence   **KEY UNIT COMPETENCE:**  To be able to describe and generate number patterns following a rule | Primary learner’s mathematics for Rwandan schools page (136-140)  Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Manila cards , scissors and markers to prepare charts |  |
| UNIT 13  Filling in missing numbers | **LESSON: 1**  Solve simple missing number problems involving addition a( 5 period)  **LESSON: 2**  Solve simple missing numbers problems involving subtraction( 2)  Solve simple missing numbers problems involving subtraction( 3)  **LESSON: 3**  Solve simple missing numbers problems involving addition and subtraction(3)  **LESSON: 4**  Summative evaluation ( 1) | **KNOWLEDGE AND** **UNDERSTANDING**   * Know how to solve simple missing number problems involving addition and subtraction   **SKILLS**   * Use relationship between numbers to solve missing number problems * Create missing number problems   **ATTITUDES AND VALUES**   * Appreciate the importance of inverse operations when solving missing number problems and checking answers   **KEY UNIT COMPETENCE**  To be able to solve missing number problems involving addition and subtraction | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools  Page (141-144)  Manila cards, masking tape, scissors and markers. |  |
| **WEEK 5**  **15-19/05/2023**  **WEEK 6**  **22-26/05/2023** | UNIT 14  Types of lines and angles | **LESSON :1**  Types of lines and measuring line segments using a ruler (2)  **LESSON: 2**  Types of angles , acute ,obtuse, right, straight, complementary, supplementary and reflex angles( 3 period)  **LESSON :3**  Measuring angles using protractor (2)  **LESSON: 4**  Summative evaluation (1) | **KNOWLEDGE AND** **UNDERSTANDING**   * State different types of lines * Identify and choose appropriate geometrical instruments * Recognize types of angles ;   Acute, obtuse, right, straight, complementary, supplementary and reflex angles   * Establish the difference between different angles based on their properties   **SKILLS**   * Draw straight lines * Measure line segment using a ruler * Measure with precision different angles using a protractor * Draw lines and measure different angles using appropriate geometrical instruments * Differentiate types of angles based on their properties   **ATITUDES AND VALUES**   * Appreciate the importance of lines and angles in daily activities * Be confident and accurate when measuring   **KEY UNIT COMPETENCE**  Learners should be able to identify types of lines and angles and use a protractor to measure angles | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools  Page(145-156)  Protractor, manila cards and markers, ruler |  |
| **WEEK 7**  **29/05-02/06/2023** | UNIT 15  2D shapes and properties | **LESSON :1**  Naming triangles on the bases of edge lengths( equilateral, isosceles, scalene) and greatest angle ( ACUTE, RIGHT, OBTUSE( (6 PERIOD)  Naming triangles on the bases of edge lengths( equilateral, isosceles, scalene) and greatest angle ( ACUTE, RIGHT, OBTUSE( (1 PERIOD  **LESSON: 2**  Use of properties, sides ( equal, parallel) , angles ,diagonals( equal, bisect ,perpendicular), lines of symmetry to distinguish special quadrilaterals( square, rectangle , rhombus ,parallelogram, trapezium, kite) ( 6period)  Use of properties, sides ( equal, parallel) , angles ,diagonals( equal, bisect ,perpendicular), lines of symmetry to distinguish special quadrilaterals( square, rectangle , rhombus ,parallelogram, trapezium, kite) ( 1period)  **LESSON :3**  Summative evaluation(1) | **KNOWLEDGE AND UNDERSTANDING**   * Name triangles and quadrilaterals * Understand a line of symmetry as a fold that produces matching halves * Understand order of rotation as the number of times a shape fits into itself * State the geometric properties that can be used to distinguish shapes.   **SKILLLS**   * Select appropriate geometrical instruments to construct triangles , rectangles ( including squares) parallelograms , trapezia and rhombi and examine their properties * Distinguish different 2D shapes using their properties * Identify triangles and special quadrilaterals in everyday situations * Determine the symmetrical properties of 2D shapes   **ATTITUDES AND VALUES**   * Appreciate the use of properties to distinguish shapes * Recognize that special quadrilaterals are subset of all quadrilaterals   **KEY UNIT COMPETENCE**  To be able to use geometric properties, including symmetry , to sort shapes | Math game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools  Page (145-156)  A ruler, protractor, variety of paper/ card shapes for sorting and exploring symmetry , and computers for sorting special quadrilaterals |  |
| **WEEK 8**  **05-09/06/2023** | UNIT 16  Area of 2D shapes | **LESSON: 1**  Area of a triangle ( 2)  **LESSON :2**  Area of a quadrilateral ( 3 period)  Area of a quadrilateral ( 4 period)  **LESSON :3** Area of shapes that can be related to rectangle ( 3)  Area of shapes that can be related to rectangle ( 2)  **LESSON: 4**  Summative evaluation(1) | **KNOWLEDGE AND UNDERSTANDING**   * Explain area as the space enclosed by a perimeter * Distinguish the area and perimeter * Select the correct unit to use   **SKILLS**   * Practically determine the area of triangle and quadrilaterals by relating them to the area of rectangles * Solve problems involving determination of the area of different 2D shapes   **ATTITUDES AND VALUES**   * Appreciate that the relationship between area and perimeter is simple.   **KEY UNIT COMPETENCE**  To use rectangles to determine the area of triangles and special quadrilaterals | Maths game, demonstration, group work, individual work , brain storming , question and answer method  Evaluation procedures: written: general test of open and closed questions | Primary learner’s mathematics for Rwandan schools  Page (146-175)  Ruler, paper shapes, squared paper ,scissors , and glue |  |
| **WEEK 9**  **12-16/06/2023** | UNIT 17  Elementary statistics | **LESSON: 1**  Data collection using tables(2)  **LESSON : 2**  Quantitative and qualitative data ( 2)  **LESSON : 3**  Interpreting and extracting information from tables and bar graphs ( 2)  **LESSON :4**  Representing information using tables and bar graphs ( 2)  **LESSON: 5**  Summative evaluation (1) | **KNOWLEDGE AND UNDERSTANDING**   * Explain how data are collected using tables * Differentiate between quantitative and qualitative data * Explain the process of interpreting and extracting information from tables * Describe how to represent information using tables and bar graphs   **SKILLS**   * Analyze and describe the possible ways data is collected * Apply the knowledge acquired to distinguish between quantitative and qualitative data * Solve mathematical problems involving interpretation and extraction of information from tables in daily life * Explain different ways of representing data * Solve mathematical problems involving representation of data in daily life   **ATTITDES AND VALUES**   * Appreciate the importance of data collection in daily life situations * Appreciate the importance of interpreting and extracting information from tables * Appreciate the importance of statistics tables and bar graphs in daily life situations   **KEY UNIT COMPETENCE**  To be able to collect, represent and interpret data | Primary learner’s mathematics for Rwandan schools  Page(176-182)  Maths game, demonstration, group work, individual work , brain storming , question and answer method  observation  Evaluation procedures: written: general test of open and closed questions | Manila paper, scissors, tape measure, rulers, glue, masking tapes, and weighing machines. |  |

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| **WEEK 10**  **19-23/07/2023** | UNIT 18  Introduction to probability | **LESSON: 1**  Play games of chance , and decide whether or not they are fair( 2 period)  **LESSON :2**  Summative evaluation  General revision | **KNOWLEDGE AND UNDERSTANDING**   * Know and explain that games have rules and may or may not be fair   **SKILLS**   * TO take turns when playing games of chance involving coins, dice, and cards * To decide whether or not a game is fair   **ATTITUDE AND VALUES**   * Appreciate the importance of following rules and taking turns when playing games   **KEY UNIT COMPETENCE**  Play games of chance and decide whether or not they are fair | Primary learner’s mathematics for Rwandan schools  Page (138-185)  Math game, demonstration, group work, individual work , brain storming , question and answer method  observation  Evaluation procedures: written: general test of open and closed questions | Various games, coins, dice, and cards |  |

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| **WEEK 11**  **26-30/06/2023** | **GENERAL REVISION** |
| **WEEK 12**  **03-07/07/2023** | **EXAMINATION** |
| **WEEK 13**  **10-14/07/2023** | **CORRECTION** |
| **WEEK 14**  **17-19/07/2023** | **PNLE** |