**2024 SMART MINDS MATHEMATICS GRADE 8 RECORDS OF WORK - TERM 1**

**SCHOOL: ………………………………………………………………….………………..**

**NAME OF THE TEACHER: ………………………………………………………………**

**GRADE:** 8

**LEARNING AREA**: MATHEMATICS

**TERM:** 1

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| **WEEK**  | **STRAND** | **WORK COVERED** | **REFLECTION** | **SIGN** |
| 1 | Numbers | Integers; Classification of integers1. Define integers.
2. Identify positive natural numbers and negative natural numbers.
3. Classify integers into positive natural numbers and negative natural numbers.
4. Appreciate the use of integers.
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|  | Numbers | Integers; Representing integers on a number line1. Define a number line
2. Draw and represent integers on a number line
3. Have fun and enjoy generating integer’s numbers lines in their classroom.
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|  | Numbers | Integers; Operations of integers1. Explain how to solve problems involving addition and subtraction of integers on a number line.
2. Illustrate and solve problems involving four basic operations on integers
3. Enjoy performing the four basic operations on integers using the number line
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|  | Numbers | Integers; Operations of integers: Combined operations involving addition and subtraction using a number line1. Work out problems involving combined operations on integers in the correct order.
2. Perform operations on integers on correct order.
3. Enjoy working out problems involving combined operations on integers in the correct order
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|  | Numbers | Fractions; Combined operations on fractions1. Identify and write fractions in figures (proper and improper)
2. Add and subtract fractions
3. Show how to add and subtract fractions
4. Appreciate the use of fractions.
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| 2 | Numbers | Fractions; Combined operations involving multiplication and division1. Outline types of fractions.
2. Perform multiplication and division of fractions.
3. Appreciate the role of fractions in our day to day activities.
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|  | Numbers | Fractions; Order of operations on fractions1. Name fractions correctly
2. Convert an improper fraction to a mixed number and vice versa.
3. Carry out combined operations on fractions on the correct order
4. Enjoy converting fractions.
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|  | Numbers | Fractions; Operations on fractions in real life situations1. State types of fractions
2. Solve world problems involving fractions in real life situations
3. Promote the use of fractions in real life situations.
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|  | Numbers | Decimals; Converting fractions to decimals1. Define decimals
2. Convert fractions into decimals.
3. Practice converting fractions to decimals
4. Have a desire to learn more about decimals.
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|  | Numbers | Decimals; Non-recurring and recurring decimals1. Identify and write recurring decimals.
2. Convert fractions to decimals and classify them into a non-recurring and recurring decimals.
3. Promote use of decimals in real life situations.
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| 3 | Numbers | Decimals; Non-recurring and recurring decimals1. Indicate the recurring digits
2. Convert recurring decimals into fractions.
3. Discuss and classify non-recurring and recurring decimals
4. Promote use of decimals in real life situations.
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|  | Numbers | Decimals; Converting recurring decimals to fractions1. Identify recurring decimals
2. Convert recurring decimals to fractions.
3. Practice converting the recurring decimals to fractions
4. Appreciate the use of decimals.
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|  | Numbers | Decimals; Rounding off decimal numbers1. Identify factors to consider when rounding off numbers.
2. Round off decimal numbers to one and two decimal place.
3. Appreciate rounding off decimal numbers to one decimal place.
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|  | Numbers | Decimals; Rounding off decimal numbers1. Round off decimal numbers to a given number of decimal places.
2. Solve problems involving rounding off numbers.
3. Appreciate rounding off decimal numbers to a given numbers of decimal places.
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|  | Numbers | Decimal; Significant figures1. Explain the meaning of significant figures.
2. Write decimal numbers to a given number of significant figures.
3. Appreciate the use of significant numbers in their day to day lives.
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| 4 | Numbers | Decimal; Significant figures1. Express different numbers to the required significant figures.
2. Write decimals and whole numbers to given significant figures
3. Appreciate the use of significant numbers in real life situations.
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|  | Numbers | Decimal; Standard form1. Explain the meaning of standard form.
2. Solve and write numbers in standard form.
3. Enjoy writing numbers in standard forms.
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|  | Numbers | Decimal; Standard form1. Write numbers in standard form in learning materials such as cards or charts.
2. Write numbers in standard form and apply in real life situations
3. Appreciate the use of standard form.
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|  | Numbers | Decimal; Standard form1. Write decimal numbers in standard form
2. Correct errors caused by failure to manipulate decimal point correctly
3. Appreciate the importance of writing numbers in standard form.
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|  | Numbers | Decimals; Combined operations on decimals1. Carry out combined operations in the correct order.
2. Play games of operations of decimals using it or other materials
3. Apply the knowledge of decimals to real life situations
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| 5 | Numbers | Decimals; Combined operations on decimals1. Use digital devices and open the link: <https://tinyurl.com/2m3bjmzc>
2. Play the game with other learners.
3. Appreciate the use of decimals in real life situations.
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|  | Numbers; Squares and Square roots | Squares of numbers from tables1. Define the term square
2. Find squares of numbers from the multiplication table.
3. Enjoy using the multiplication table.
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|  | Numbers; Squares and Square roots | Squares of numbers from tables1. Identify squares of numbers greater than 9.999 from tables.
2. Work out square of numbers less than 1 from tables.
3. Appreciate the use of a multiplication table.
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|  | Numbers; Squares and Square roots | Squares of numbers from tables1. Work out the squares of numbers from tables in different situations.
2. Memorize squares of numbers.
3. Appreciate the use of mathematical table.
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|  | Numbers; Squares and Square roots | Square roots of numbers from tables1. Read the square root table
2. Read square roots of numbers 1< A <10 from mathematical tables
3. Enjoy finding square roots of numbers using tables.
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| 6 | Numbers; Squares and Square roots | Square roots of numbers from tables1. Identify the point where the row and the column meet.
2. Get the Square roots of numbers less than one and greater than 100 form their mathematical tables
3. Enjoy finding square roots of numbers using tables.
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|  | Numbers; Squares and Square roots | Square root of numbers greater than 9.99 from tables.1. Draw number card using the square root table.
2. Work out the square root of numbers greater than 99.99 from the table.
3. Appreciate the use of square root tables.
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|  | Numbers; Squares and Square roots | Square roots of numbers less than 1 from tables1. Identify square root of numbers less than 1 from tables.
2. Work out the square root of each number less than 1.
3. Have a desire to learn more about square roots.
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|  | Numbers; Squares and Square roots | Squares of numbers using a calculator1. Work out squares of numbers using a calculator.
2. Play a game of reciting odd numbers between 1 and 50. Find their squares using a calculator.
3. Appreciate the use of a calculator.
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|  | Numbers; Squares and Square roots | Square roots of numbers using a calculator1. Work out square root of numbers using a calculator.
2. Play a game of reciting odd numbers between 50 and 100. Find their square root using a calculator.
3. Enjoy finding squares and square roots of numbers using a calculator.
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| 7 | Rates, Ratio, Proportions and Percentages | Rates, Ratio, Proportions and Percentages: Rates1. Explain the meaning of rate.
2. Work out the rate of different units of measure.
3. Identify rates in different situations.
4. Appreciate the importance of rates.
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|  | Rates, Ratio, Proportions and Percentages | Ratio; Expressing fractions as ratios1. Explain the meaning of ratio
2. Express fractions as ratio
3. Have a desire to learn more about ratio
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|  | Rates, Ratio, Proportions and Percentages | Comparing ratio1. Outline the procedure of working out LCM
2. Compare different ratios of different items.
3. Determine which ratio is greater than the other by expressing them in the form n: 1
4. Appreciate different ratios of different items.
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|  | Rates, Ratio, Proportions and Percentages | Dividing a quantity in a given ratio1. State the formula of dividing a quantity in a given ratio
2. Divide a quantity in any given ratio.
3. Promote equality among themselves
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|  | Rates, Ratio, Proportions and Percentages | Ratios in different situations1. Identify different ratios in different situations, for example, 5: 7
2. Work out ratios in different situations.
3. Appreciate ratios in different situations.
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| 8 |  | **HALF TERM BREAK** |  |  |
| 9 | Rates, Ratio, Proportions and Percentages | Increasing quantities using ratios1. State the formula of increasing quantities using ratios.
2. Work out tasks that involve increasing quantities using ratios
3. Appreciate the importance of ratios.
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|  | Rates, Ratio, Proportions and Percentages | Decreasing quantities using ratios1. State the formula of decreasing quantities using ratios.
2. Work out tasks that involve decrease quantities using ratios
3. Appreciate the importance of ratios in their day to day lives.
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|  | Rates, Ratio, Proportions and Percentages | Percentages1. Discuss the meaning of %
2. Write percentage as a fraction.
3. Work out different percentages.
4. Appreciate the use of percentages.
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|  | Rates, Ratio, Proportions and Percentages | Percentage increase1. State the formula of working out percentage increase.
2. Calculate the percentage increase of different commodities and items.
3. Promote the use of percentage in their day to day activities.
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|  | Rates, Ratio, Proportions and Percentages | Percentage decrease1. State the formula of working out percentage decrease.
2. Calculate the percentage decrease of different commodities and items.
3. Promote the use of percentage in their day to day activities.
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| 10 | Rates, Ratio, Proportions and Percentages | Proportions1. Explain the meaning of proportions.
2. Work out different proportions of different ratios.
3. Have a desire to learn more about proportions.
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|  | Rates, Ratio, Proportions and Percentages | Direct proportions1. Identify direct proportions in real life situations.
2. Role play shopping activities to show and determine direct relationships and can use any other activities.
3. Promote use of proportions in real life.
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|  | Rates, Ratio, Proportions and Percentages | Indirect proportion1. Identify direct and indirect proportions in real life situations
2. Use hourglass to show and determine indirect relationships and can use any other activities
3. Promote use of proportions in real life.
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|  | Algebra | Algebraic expressions; Like and unlike terms in algebraic expressions1. Define like terms and unlike terms used in algebraic expressions.
2. Simplify algebraic expressions.
3. Have a desire to learn more about algebraic expression.
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|  | Algebra | Factorisation of algebraic expressions1. State the procedure of factorisation of algebraic expressions.
2. Factorise different algebraic expressions.
3. Enjoy using algebraic expressions in real life.
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| 11 | Algebra | Simplication of algebraic fractions1. Simplify algebraic fractions in different situations.
2. Use IT to work out exercises and activities in algebra or drag and drop activities of grouping similar terms to simplify algebraic expression.
3. Enjoy using algebraic fractions in real life.
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|  | Algebra | Evaluating algebraic expressions by substituting numerical values1. Evaluate algebraic expressions by substituting numerical values in different situations.
2. Discuss how to substitute the given numerical values to work out a given algebraic expression
3. Appreciate the importance of algebraic expressions.
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|  | Algebra | Linear equations; Forming linear equations in two unknowns1. Form linear equations in two unknowns in real life situations
2. Role play activities such as shopping on two different items in the shop to form linear equations in two unknowns.
3. Recognize use of linear equations in real life.
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|  | Algebra | Solving linear equations in two unknowns by the substitution method1. Solve linear equations in two unknowns by Substitution method in real life situations.
2. Discuss and use substitution method to find the solutions of simultaneous equations in two unknowns.
3. Appreciate the use of linear equations.
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|  | Algebra | Solving linear equations in two unknowns by the elimination method.1. Solve linear equations in two unknowns by elimination method in real life situations.
2. Apply linear equations in two unknowns in real life situations.
3. Use IT devices to work out linear learning and for enjoyment.
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| 12-13 |  | **END OF TERM ONE EXAMINATION** |  |  |