

Curriculum Overview Term 1

Grade 7 Math 2013-14

Each strand is addressed with a major emphasis and strands are interrelated whenever possible to provide a rich variety of math experiences for students.

TERM 1

UNIT 2: N6: Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially and symbolically.

ACHIEVEMENT INDICATORS:

I CAN:

Explain using concrete materials such as integer tiles and diagrams, that the sum of opposite integers is zero.

- Illustrate, using a number line, the results of adding or subtracting negative and positive integers; e.g., a move in one direction followed by an equivalent move in the opposite direction results in no net change in position.
- Add two given integers, using concrete materials or pictorial representations, and record the process symbolically.
 - Subtract two given integers, using concrete materials or pictorial representations, and record the process symbolically.
 - Illustrate the relations between adding integers and subtracting integers.
 - Solve a given problem involving the addition and subtraction of integers.

Unit 1:N1 Determine and explain why a number is divisible by 2, 3, 4, 5, 6, 8, 9 or 10, and why a number cannot be divided by 0.

ACHIEVEMENT INDICATORS:

CAN:

- I can :
- Determine if a given number is divisible by 2, 3, 4, 5, 6, 8, 9 or 10.
 - Determine the factors of a given number using the divisibility rules.
 - Explain, using an example, why numbers cannot be divided by 0.

UNIT 1: PR1: Demonstrate an understanding of oral and written patterns and their equivalent linear relations.

PR1

- Formulate a linear relation to represent the relationship in a given oral or written pattern.
- Provide a context for a given linear relation that represents a pattern.
 - Represent a pattern in the environment, using a linear relation.

UNIT1: PR2: Create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems.

PR2

- Create a table of values for a given linear relation by substituting values for the variable.
- Create a table of values, using a linear relation, and graph the table of values (limited to discrete elements).
 - Sketch the graph from a table of values created for a given linear relation and describe the patterns found in the graph to draw conclusions; e.g., graph the relationship between n and $2n + 3$.
 - Describe the relationship shown on a graph, using everyday language in spoken or written form, to solve problems.
 - Match a given set of linear relations to a given set of graphs.
 - Match a given set of graphs to a given set of linear relations.

UNIT 1: PR4: Explain the difference between an expression and an equation.

UNIT 1: PR5: Evaluate an expression given the value of the variable(s).

ACHIEVEMENT INDICATORS:

I CAN:

- Identify and provide an example of a constant term, a numerical coefficient and a variable in an expression and an equation.
- Explain what a variable is and how it is used in a given expression.
- Provide an example of an expression and an equation, and explain how they are similar and different.
- Substitute a value for an unknown in a given expression and evaluate the expression.

UNIT 3: N2 Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected) to solve problems.

ACHIEVEMENT INDICATORS:

I CAN:

- Solve a given problem involving the addition of two or more decimal numbers.
- Solve a given problem involving the subtraction of decimal numbers.
- Solve a given problem involving the multiplication of decimal numbers.
- Solve a given problem involving the multiplication or division of decimal numbers with 2-digit multipliers or 1-digit divisors (whole numbers or decimals) without the use of technology.
 - Solve a given problem involving the multiplication or division of decimal numbers with more than a 2-digit multiplier or 1-digit divisor (whole number or decimal), with the use of technology.
- Place the decimal in a sum or difference using front-end estimation, e.g., for $4.5 + 0.73 + 256.458$, think $4 + 256$, so the sum is greater than 260.

- Place the decimal in a product using front-end estimation, e.g., for $\$12.33 \times 2.4$, think $\$12 \times 2$, so the product is greater than \$24.
- Place the decimal in a quotient using front-end estimation, e.g., for $51.50 \text{ m} \div 2.1$, think $50 \text{ m} \div 2$, so the quotient is approximately 25 m.
- Check the reasonableness of solutions using estimation.
- Solve a given problem that involves operations on decimals (limited to thousandths) taking into consideration the order of operations.

UNIT 3: N4: Demonstrate an understanding of the relationship between positive repeating decimals and positive fractions, and positive terminating decimals and positive fractions.

ACHIEVEMENT INDICATORS:

Predict the decimal representation of a given fraction using patterns, e.g.,

- Match a given set of fractions to their decimal representations.
- Sort a given set of fractions as repeating or terminating decimals.
- Express a given fraction as a terminating or repeating decimal.
- Express a given repeating decimal as a fraction.
- Express a given terminating decimal as a fraction.
- Provide an example where the decimal representation of a fraction is an approximation of its exact value. (For example, two thirds equals approximately 0.67)

UNIT 3: N7: Compare and order positive fractions, positive decimals (to thousandths) and whole numbers by using:

- benchmarks
- place value
- equivalent fractions and/or decimals.

ACHIEVEMENT INDICATORS:

I CAN:

- Order the numbers of a given set that includes positive fractions, positive decimals and/or whole numbers in ascending or descending order, and verify the result using a variety of strategies.
 - Identify a number that would be between two given numbers in an ordered sequence or on a number line.
 - Identify incorrectly placed numbers in an ordered sequence or on a number line.
 - Position fractions with like and unlike denominators from a given set on a number line and explain strategies used to determine order.
- Order the numbers of a given set by placing them on a number line that contains benchmarks, such as 0 and 1 or 0 and 5.

° Position a given set of positive fractions, including mixed numbers and improper fractions, on a number line and explain strategies used to determine position.

° Position a given set of positive decimals on a number line and explain strategies used to determine position.

MARKING SCHEME

Math Assessment Rubric:

Daily Work- 10%

Mental Math- 10%

Homework/Assignments- 10%

Quizzes- 25%

Tests- 45%