

Instructional Vocabulary

Grade 7 Math

Unit 1: Numerical Understanding: Integers and Positive Rational Numbers

- **Integers** – the set of whole numbers and their opposites
- **Perfect square** – the product of squaring a whole number
- **Positive rational numbers** – the set of numbers that includes whole numbers, positive fractions, and positive decimals
- **Square number** – the product when a number is multiplied by itself
- **Square root** – a factor of a number that, when squared, equals the original number

Unit 2: Numerical Operations: Integers and Positive Rational Numbers

- **Absolute value** – the distance between a number and zero
- **Negative number** – the opposite of a whole number
- **Simplifying an expression** – to find the value of a numeric expression by following the order of operations
- **Zero pair** – a whole number and its opposite whose sum is zero

Unit 3: Proportionality: Similar Figures, Representations and Applications

- **Proportion** – two equivalent ratios
- **Similar figures** – all corresponding angles are congruent and the lengths of the corresponding sides are proportional

Unit 4: Geometry: Coordinate Plane, Graphing Transformations, and Perspectives

- **Coordinate system** – two-dimensional system with a horizontal and vertical axis that intersect at the origin and lie in a plane creating four Quadrants (I, II, III, IV) where an ordered pair (x, y) or (horizontal, vertical) is used to describe the location of a specific point on the plane
- **Front view** – the view of a three-dimensional figure looking from the front
- **Perspectives** – the two-dimensional top, front, and side view of a three-dimensional shape.
- **Reflection** – a transformation frequently described as a flip; congruence is maintained and the orientation is a mirror image
- **Side view** – the view of a three-dimensional figure looking from the side
- **Top view** – the view of a three-dimensional figure looking down from the top
- **Transformation** – a translation, reflection, or combination of the two
- **Translation** – a transformation frequently described as a slide; congruence is maintained, as well as the orientation to the original figure

Unit 5: Algebraic Expressions and Equations

- **Arithmetic sequence** – a sequence of numbers that have a constant rate of change between each pair of consecutive numbers
- **Equation** – a mathematical sentence composed of algebraic expressions set equal to each other

- **Equivalent equations or expressions** – algebraic equations or expressions that yield the same solution or values
- **Expression** – a mathematical representation consisting of symbols, operators, and/or variables to indicate operations to be performed on a group of numbers according to the order of operations
- ***n*th term** – term in a sequence represented by, and found, using an algebraic expression that describes the relationship between the two variables in the problem
- **Variable** – a symbol, usually a letter, used to represent an unknown value

Unit 6: Algebraic Representations and Applications

- **Equal** – has the same value as
- **Equation** – a mathematical sentence composed of algebraic expressions set equal to each other
- **Expression** – a mathematical representation consisting of symbols, operators, and/or variables to indicate operations to be performed on a group of numbers according to the order of operations
- **Representations** – concrete models, tables, graphs, verbal descriptions, and algebraic generalizations of data
- **Solution** – a value of the variable that makes the equation true
- **Solving an equation** – process of finding the value of a variable that makes an equation true
- **Variable** – a symbol, usually a letter, used to represent an unknown value

Unit 7: Geometry and Measurement: Two-dimensional

- **Equal** – has the same value as
- **Equation** – a mathematical sentence composed of algebraic expressions set equal to each other
- **Expression** – a mathematical representation consisting of symbols, operators, and/or variables to indicate operations to be performed on a group of numbers according to the order of operations
- **Representations** – concrete models, tables, graphs, verbal descriptions, and algebraic generalizations of data
- **Solution** – a value of the variable that makes the equation true
- **Solving an equation** – process of finding the value of a variable that makes an equation true
- **Variable** – a symbol, usually a letter, used to represent an unknown value

Unit 8: Measurement: Three-Dimensional

- **Net** – a two-dimensional model or drawing that can be folded into a three-dimensional solid
- **Unit of measure** – the type of unit used to measure different attributes such as length (units), area (square units), and volume (cubic units)
- **Volume** – a measurement of the amount of space occupies by a three-dimensional figure, recorded in cubic units

Unit 9: Statistical Representations and Analysis

- **Mean** – the average of a set of data
- **Measures of central tendency** – statistical representations (mean, median, and mode) used to analyze data in a set
- **Variability** – range, spread of the data

Unit 10: Probability

- **Composite experiment** – an experiment that consists of two or more simple experiments
- **Experimental probability** – number of observed occurrences of the event/total number of trials
- **Independent events** – events where the outcome of one event does not affect the outcome of another
- **Probability** – a ratio between the number of desired outcomes to the total possible outcomes, $0 \leq p \leq 1$
- **Sample space** – the collection of all possible outcomes of an experiment
- **Simple experiment** – an experiment that consists of a single outcome

Unit 11: Making Connections

- **Equation** – a mathematical sentence composed of algebraic expressions set equal to each other
- **Unit of measure** – the type of unit used to measure different attributes such as length (units) and area (square units)

Unit 12: Catering Investigation

- **Equation** – a mathematical sentence composed of algebraic expressions joined by an equal sign
- **Proportion** – two equivalent ratios
- **Solution** – a value of the variable that makes the equation true
- **Variable** – a symbol, usually a letter, used to represent an unknown value