

NUMBER	
General Outcome <i>Develop number sense.</i>	
7.N.1. 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. [C, R]	
7.N.2. Demonstrate an understanding of the addition, subtraction, multiplication, and division of decimals to solve problems (for more than 1-digit divisors or 2-digit multipliers, technology could be used). [ME, PS, T]	
7.N.3. Solve problems involving percents from 1% to 100%. [C, CN, ME, PS, R, T]	
7.N.4. Demonstrate an understanding of the relationship between repeating decimals and fractions, and terminating decimals and fractions. [C, CN, R, T]	
7.N.5. Demonstrate an understanding of adding and subtracting positive fractions and mixed numbers, with like and unlike denominators, concretely, pictorially, and symbolically (limited to positive sums and differences). [C, CN, ME, PS, R, V]	
7.N.6. Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially, and symbolically. [C, CN, PS, R, V]	

7.N.7. Compare and order fractions, decimals (to thousandths), and integers by using <ul style="list-style-type: none"> ■ benchmarks ■ place value ■ equivalent fractions and/or decimals [CN, R, V]

PATTERNS AND RELATIONS

General Outcome
Use patterns to describe the world and solve problems.

7.PR.1. Demonstrate an understanding of oral and written patterns and their corresponding relations. [C, CN, R]
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7.PR.2. Construct a table of values from a relation, graph the table of values, and analyze the graph to draw conclusions and solve problems. [C, CN, R, V]
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General Outcome
Represent algebraic expressions in multiple ways.

7.PR.3. Demonstrate an understanding of preservation of equality by <ul style="list-style-type: none"> ■ modeling preservation of equality, concretely, pictorially, and symbolically ■ applying preservation of equality to solve equations [C, CN, PS, R, V]
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7.PR.4. Explain the difference between an expression and an equation. [C, CN]
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7.PR.5. Evaluate an expression given the value of the variable(s). [CN, R]

7.PR.6. Model and solve problems that can be represented by one-step linear equations of the form $x + a = b$, concretely, pictorially, and symbolically, where a and b are integers. [CN, PS, R, V]
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7.PR.7. Model and solve problems that can be represented by linear equations of the form <ul style="list-style-type: none"> ■ $ax + b = c$ ■ $ax = b$ ■ $\frac{x}{a} = b, a \neq 0$ concretely, pictorially, and symbolically, where $a, b,$ and c are whole numbers. [CN, PS, R, V]

SHAPE AND SPACE

General Outcome
Use direct or indirect measurement to solve problems.

7.SS.1. Demonstrate an understanding of circles by <ul style="list-style-type: none"> ■ describing the relationships among radius, diameter, and circumference of circles ■ relating circumference to pi (π) ■ determining the sum of the central angles ■ constructing circles with a given radius or diameter ■ solving problems involving the radii, diameters, and circumferences of circles [C, CN, R, V]
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7.SS.2. Develop and apply a formula for determining the area of <ul style="list-style-type: none"> ■ triangles ■ parallelograms ■ circles [CN, PS, R, V]

General Outcome
Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

7.SS.3. Perform geometric constructions, including <ul style="list-style-type: none"> ■ perpendicular line segments ■ parallel line segments ■ perpendicular bisectors ■ angle bisectors [CN, R, V]

General Outcome
Describe and analyze position and motion of objects and shapes.

7.SS.4. Identify and plot points in the four quadrants of a Cartesian plane using ordered pairs. [C, CN, V]
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7.SS.5. Perform and describe transformations of a 2-D shape in all four-quadrants of a Cartesian plane (limited to integral vertices). [C, CN, PS, T, V]

STATISTICS AND PROBABILITY

General Outcome
Collect, display, and analyze data to solve problems.

7.SP.1. Demonstrate an understanding of central tendency and range by <ul style="list-style-type: none"> ■ determining the measures of central tendency (mean, median, mode) and range ■ determining the most appropriate measures of central tendency to report findings [C, PS, R, T]

7.SP.2. Determine the effect on the mean, median, and mode when an outlier is included in a data set. [C, CN, PS, R]

7.SP.3. Construct, label, and interpret circle graphs to solve problems. [C, CN, PS, R, T, V]
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General Outcome
Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

7.SP.4. Express probabilities as ratios, fractions, and percents. [C, CN, R, T, V]

7.SP.5. Identify the sample space (where the combined sample space has 36 or fewer elements) for a probability experiment involving two independent events. [C, ME, PS]
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7.S.6. Conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table, or another graphic organizer) and experimental probability of two independent events. [C, PS, R, T]
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