Correlation of Pearson Mathematics Makes Sense Grade 7

to

The Curriculum

Number

General Outcomes

- Develop number sense

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
1. Determine and explain why a number is divisible by 2, 3, 4, 5, 6,8 or 10, and why a number cannot be divided by 0.	Unit 1, Lesson 1.1, pp. 6–9; Unit 1, Lesson 1.2, pp. 10–13
2. 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.	Unit 3, Lesson 3.3, pp. 96–99; Unit 3, Lesson 3.4, pp. 100–103; Unit 3, Lesson 3.5, pp. 104–107; Unit 3, Lesson 3.6, pp. 108, 109; Unit 3, Unit Problem, pp. 124, 125
3. Solve problems involving percents from 1% to 100%.	Unit 3, Lesson 3.7, pp. 111–113; Unit 3, Lesson 3.8, pp. 114–116; Unit 3, Unit Problem, pp. 124, 125
4. Demonstrate an understanding of the relationship between positive repeating decimals and positive fractions, and positive terminating decimals and positive fractions.	Unit 3, Lesson 3.1, pp. 86–90
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).	Unit 5, Lesson 5.1, pp. 178–180; Unit 5, Lesson 5.2, pp. 181–185; Unit 5, Lesson 5.3, pp. 186–189; Unit 5, Lesson 5.4, pp. 191–194; Unit 5, Lesson 5.5, pp. 195–198; Unit 5, Lesson 5.6, pp. 199–203; Unit 5, Lesson 5.7, pp. 204–208; Unit 5, Unit Problem, pp. 216, 217

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
6. Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially and symbolically.	Unit 2, Lesson 2.1, pp. 52–55; Unit 2, Lesson 2.2, pp. 56–59; Unit 2, Lesson 2.3, pp. 60–64; Unit 2, Lesson 2.4, pp. 66–70; Unit 2, Lesson 2.5, pp. 71–75; Unit 2, Unit Problem, pp. 82, 83
7. Compare and order positive fractions, positive decimals (to thousandths) and whole numbers by using: • benchmarks • place value • equivalent fractions and/or decimals.	Unit 3, Lesson 3.2, pp. 91–95

Patterns and Relations (Patterns)

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

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
1. Demonstrate an understanding of oral and written patterns and their equivalent linear relations.	Unit 1, Lesson 1.3, pp. 16–19; Unit 1, Lesson 1.4, pp. 21–24; Unit 1, Unit Problem, pp. 48, 49
2. Create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems.	Unit 1, Lesson 1.5, pp. 25–28; Unit 1, Lesson 1.6, pp. 30–34; Unit 1, Unit Problem, pp. 48, 49

Patterns and Relations (Variables and Equations)

General Outcome:
- Represent algebraic expressions in multiple ways.

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
3. Demonstrate an understanding of preservation of equality of: - modeling preservation of equality, concretely, pictorially and symbolically - applying preservation of equality to solve equations	Unit 6, Lesson 6.2, pp. 226–230; Unit 6, Lesson 6.3, pp. 231–235; Unit 6, Lesson 6.4, pp. 237–239; Unit 6, Lesson 6.5, pp. 240–244; Unit 6, Unit Problem, pp. 252, 253
4. Explain the difference between an expression and an equation.	Unit 1, Lesson 1.7, pp. 35–37; Unit 6, Lesson 6.1, pp. 220–224; Unit 6, Unit Problem, pp. 252, 253
5. Evaluate an expression given the value of the variable(s).	Unit 1, Lesson 1.3, pp. 16–19; Unit 1, Lesson 1.4, pp. 21–24; Unit 1, Unit Problem, pp. 48, 49; Unit 6, Unit Problem, pp. 252, 253
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.	Unit 6, Lesson 6.3, pp. 231–235; Unit 6, Lesson 6.4, pp. 237–239; Unit 6, Lesson 6.5, pp. 240–244

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
7. Model and solve problems that can be represented by linear equations of the form: • $ax + b = c$ • $ax = b$ • $\dfrac{x}{a} = b, a \neq 0$	Unit 1, Lesson 1.8, pp. 38–42; Unit 1, Unit Problem, pp. 48, 49; Unit 6, Lesson 6.1, pp. 220–224; Unit 6, Lesson 6.2, pp. 226–230; Unit 6, Lesson 6.4, pp. 237–239; Unit 6, Lesson 6.5, pp. 240–244; Unit 6, Unit Problem, pp. 252, 253

Shape and Space (Measurement)

General Outcome:
- Use direct or indirect measurement to solve problems.

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
1. Demonstrate an understanding of circles by: - describing the relationships among radius, diameter and circumference of circles - relating circumference to pi - 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.	Unit 4, Lesson 4.1, pp. 130–132; Unit 4, Lesson 4.2, pp. 133–137; Unit 4, Unit Problem, pp. 172, 173
2. Develop and apply a formula for determining the area of: - triangles - parallelograms - circles.	Unit 4, Lesson 4.3, pp. 139–142; Unit 4, Lesson 4.4, pp. 143–147; Unit 4, Lesson 4.5, pp. 148–152; Unit 4, Game, p. 153; Unit 4, Unit Problem, pp. 172, 173

Shape and Space (3-D Objects and 2-D shapes)

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

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
3. Perform geometric constructions, including: - perpendicular line segments - parallel line segments - perpendicular bisectors - angle bisectors	Unit 8, Lesson 8.1, pp. 300–302; Unit 8, Lesson 8.2, pp. 303–305; Unit 8, Lesson 8.3, pp. 306–309; Unit 8, Lesson 8.4, pp. 310–313; Unit 8, Unit Problem, pp. 338, 339

Shape and Space (Transformations)

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

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
4. Identify and plot points in the four quadrants of a Cartesian place using integral ordered pairs.	Unit 8, Lesson 8.5, pp. 315–319; Unit 8, Lesson 8.6, pp. 320–324; Unit 8, Lesson 8.7, pp. 325–329; Unit 8, Unit Problem, pp. 338, 339
5. Perform and describe transformations (translations, rotations or reflections) of a 2-D shape in all four quadrants of a Cartesian plane (limited to integral number vertices).	Unit 8, Lesson 8.6, pp. 320–324; Unit 8, Lesson 8.7, pp. 325–329; Unit 8, Technology Lesson, pp. 330, 331; Unit 8, Unit Problem, pp. 338, 339

Statistics and Probability (Data Analysis)

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

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
1. Demonstrate an understanding of central tendency and range by: • determining the measures of central tendency (mean, median, mode) and range • determining the most appropriate measures of central tendency to report findings.	Unit 7, Lesson 7.1, pp. 258–261; Unit 7, Lesson 7.2, pp. 262–266; Unit 7, Lesson 7.4, pp. 271–275; Unit 7, Technology Lesson, pp. 276, 277; Unit 7, Unit Problem, pp. 296, 297
2. Determine the effect on the man, median and mode when an outlier is included in a data set.	Unit 7, Lesson 7.3, pp. 267–270; Unit 7, Technology Lesson, pp. 276, 277
3. Construct, label and interpret circle graphs to solve problems.	Unit 4, Lesson 4.6, pp. 156–160; Unit 4, Lesson 4.7, pp. 161–164; Unit 4, Technology Lesson, pp. 165, 166

Statistic and Probability (Chance and Uncertainty)

General Outcome:
- Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 7*
4. Express probabilities as ratios, fractions and percents.	Unit 7, Lesson 7.5, pp. 279–283; Unit 7, Game, p. 289; Unit 7, Unit Problem, pp. 296, 297
5. Identify the sample space (where the combined sample space has 36 or fewer elements) for a probability experiment involving two independent events.	Unit 7, Lesson 7.6, pp. 284–288; Unit 7, Game, p. 289; Unit 7, Unit Problem, pp. 296, 297
6. Conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table or another graphic organize) and experimental probability of two independent events.	Unit 7, Lesson 7.6, pp. 284–288; Unit 7, Unit Problem, pp. 296, 297