Correlation of Pearson Mathematics Makes Sense Grade 8

to

The Curriculum

Number

General Outcome:

- Develop number sense.

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 8*
1. Demonstrate an understanding of perfect square and square root, concretely, pictorially and symbolically (limited to whole numbers).	Unit 1, Lesson 1.1, pp. 6–10; Unit 1, Lesson 1.2, pp. 11–16; Unit 1, Lesson 1.3, pp. 17–21; Unit 1, Lesson 1.5, pp. 31–36; Unit 1, Lesson 1.7, pp. 46–51; Unit 1, Unit Problem, pp. 60, 61
2. Determine the approximate square root of numbers that are not perfect squares (limited to whole numbers).	Unit 1, Lesson 1.4, pp. 22–27; Unit 1, Game, p. 28; Unit 1, Technology Lesson, p. 29; Unit 1, Lesson 1.5, pp. 31–36; Unit 1, Lesson 1.7, pp. 46–51
3. Demonstrate an understanding of percents greater than or equal to 0%.	Unit 5, Lesson 5.1, pp. 234–241; Unit 5, Lesson 5.2, pp. 242–247; Unit 5, Lesson 5.3, pp. 248–255; Unit 5, Lesson 5.4, pp. 256–262
4. Demonstrate an understanding of ratio and rate.	Unit 5, Lesson 5.5, pp. 264–268; Unit 5, Lesson 5.6, pp. 269–275; Unit 5, Game, p. 278; Unit 5, Lesson 5.7, pp. 279–286; Unit 5, Lesson 5.8, pp. 287–293; Unit 5, Lesson 5.9, pp. 294–299; Unit 5, Lesson 5.10, pp. 300–306; Unit 5, Unit Problem, pp. 314, 315

Specific Outcomes	*Pearson Mathematics Makes Sense 8*
5. Solve problems that involve rates, ratios and proportional reasoning.	Unit 5, Lesson 5.5, pp. 264–268; Unit 5, Lesson 5.6, pp. 269–275; Unit 5, Lesson 5.7, pp. 279–286; Unit 5, Lesson 5.8, pp. 287–293; Unit 5, Lesson 5.9, pp. 294–299; Unit 5, Lesson 5.10, pp. 300–306; Unit 5, Unit Problem, pp. 314, 315
6. Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially and symbolically.	Unit 3, Lesson 3.1, pp. 104–109; Unit 3, Lesson 3.2, pp. 110–114; Unit 3, Lesson 3.3, pp. 115–120; Unit 3, Lesson 3.4, pp. 121–126; Unit 3, Game, p. 127; Unit 3, Lesson 3.5, pp. 129–134; Unit 3, Lesson 3.6, pp. 135–140; Unit 3, Lesson 3.7, pp. 141–146; Unit 3, Lesson 3.8, pp. 147–152; Unit 3, Lesson 3.9, pp. 153–155; Unit 3, Unit Problem, pp. 164, 165
7. Demonstrate an understanding of multiplication and division of integers, concretely, pictorially and symbolically.	Unit 2, Lesson 2.1, pp. 64–69; Unit 2, Lesson 2.2, pp. 70–75; Unit 2, Game, p. 76; Unit 2, Lesson 2.3, pp. 77–82; Unit 2, Lesson 2.4, pp. 84–89; Unit 2, Lesson 2.5, pp. 90–93; Unit 2, Unit Problem, pp. 100, 101

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 8*
1. Graph and analyze two-variable linear relations.	Unit 6, Lesson 6.6, pp. 351–358; Unit 6, Lesson 6.7, pp. 359–365; Unit 6, Technology Lesson, pp. 366, 367; Unit 6, Unit Problem, pp. 376, 377

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 8*
2. Model and solve problems using linear equations of the form: - $ax = b$ - $\frac{x}{a} = b, a \neq 0$ - $ax + b = c$ - $\frac{x}{a} + b = c \ \ a \neq 0$ - $a(x + b) = c$ concretely, pictorially and symbolically, where a, b and c are integers.	Unit 6, Lesson 6.1, pp. 318–326; Unit 6, Lesson 6.2, pp. 327–332; Unit 6, Lesson 6.3, pp. 333–337; Unit 6, Lesson 6.4, pp. 338–343; Unit 6, Lesson 6.5, pp. 344–348; Unit 6, Game, p. 349; Unit 6, Unit Problem, pp. 376, 377

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 8*
1. Develop and apply the Pythagorean theorem to solve problems.	Unit 1, Lesson 1.5, pp. 31–36; Unit 1, Technology Lesson, pp. 37, 38; Unit 1, Lesson 1.6, pp. 39–45; Unit 1, Lesson 1.7, pp. 46–51; Unit 1, Unit Problem, pp. 60, 61
2. Draw and construct nets for 3-D objects.	Unit 4, Lesson 4.1, pp. 170–176; Unit 4, Lesson 4.2, pp. 177–182; Unit 4, Lesson 4.3, pp. 183–187; Unit 4, Lesson 4.4, pp. 188–193; Unit 4, Lesson 4.7, pp. 209–214
3. Determine the surface area of: - right rectangular prisms - right triangular prisms - right cylinders to solve problems.	Unit 4, Lesson 4.3, pp. 183–187; Unit 4, Lesson 4.4, pp. 188–193; Unit 4, Lesson 4.7, pp. 209–214; Unit 4, Unit Problem, pp. 228, 229
4. Develop and apply formulas for determining the volume of right prisms and right cylinders.	Unit 4, Lesson 4.5, pp. 195–200; Unit 4, Game, p. 201; Unit 4, Lesson 4.6, pp. 202–208; Unit 4, Lesson 4.8, pp. 215–219; Unit 4, Unit Problem, pp. 228, 229

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 8*
5. Draw and interpret top, front and side views of 3-D objects composed of right rectangular prisms.	Unit 8, Lesson 8.1, pp. 434–439; Unit 8, Technology Lesson, p. 440; Unit 8, Lesson 8.2, pp. 441–446; Unit 8, Lesson 8.3, pp. 447–453; Unit 8, Technology Lesson, p. 454

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 8*
6. Demonstrate an understanding of tessellation by: • explaining the properties of shapes that make tessellating possible • creating tessellations • identifying tessellations in the environment.	Unit 8, Lesson 8.4, pp. 456–461; Unit 8, Lesson 8.5, pp. 462–469; Unit 8, Game, p. 470; Unit 8, Lesson 8.6, pp. 471–478; Unit 8, Technology Lesson, p. 479; Unit 8, Unit Problem, pp. 488, 489

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 8*
1. Critique ways in which data is presented.	Unit 7, Lesson 7.1, pp. 382–390; Unit 7, Technology Lesson, pp. 391–393; Unit 7, Lesson 7.2, pp. 394–402; Unit 7, Technology Lesson, pp. 403–405; Unit 7, Unit Problem, pp. 430, 431

Statistics 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 8*
2. Solve problems involving the probability of independent events.	Unit 7, Lesson 7.3, pp. 407–413; Unit 7, Game, p. 416; Unit 7, Lesson 7.4, pp. 417–422; Unit 7, Technology Lesson, p. 423; Unit 7, Unit Problem, pp. 430, 431