Correlation of Pearson Mathematics Makes Sense Grade 4
to
The Curriculum

Number

General Outcome

- Develop number sense

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 4*
1. Represent and describe whole numbers to 10 000, pictorially and symbolically.	Unit 2, Lesson 1, pp. 34–37
2. Compare and order numbers to 10 000.	Unit 2, Lesson 1, pp. 38–41
3. Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3 and 4-digit numerals) by: • using personal strategies for adding and subtracting • estimating sums and differences • solving problems involving addition and subtraction.	Unit 2, Lesson 4, pp. 46–48; Unit 2, Lesson 5, pp. 49, 50; Unit 2, Lesson 6, pp. 51–54; Unit 2, Lesson 7, pp. 55–58; Unit 2, Lesson 8, pp. 59–61; Unit 2, Lesson 9, pp. 62, 63; Unit 2, Lesson 10, pp. 64–67; Unit 2, Lesson 11, pp. 68, 69; Unit 2, Lesson 12, pp. 70, 71; Unit 2, Lesson 13, pp. 73–75; Unit 2, Unit Problem, pp. 78, 79
4. Explain the properties of 0 and 1 for multiplication, and the property of 1 for division.	Unit 3, Lesson 2, pp. 86–89; Unit 3, Lesson 7, pp. 104–106
5. Describing and apply mental mathematics strategies, such as: • skip counting from a known fact • using doubling or halving • using doubling or halving and adding or subtracting one more group • using patterns in the 9s facts • using repeated doubling to determine basic multiplication facts to 9 x 9 and related division facts.	Unit 3, Lesson 1, pp. 82–85; Unit 3, Lesson 3, pp. 90–93; Unit 3, Lesson 4, pp. 94–97; Unit 3, Lesson 5, pp. 98–100; Unit 3, Lesson 7, pp. 104–106; Unit 3, Lesson 8, pp. 107–109; Unit 3, Lesson 9, pp. 110–112; Unit 3, Lesson 10, pp. 113–115; Unit 3, Unit Problem, pp. 118, 119

Specific Outcomes	*Pearson Mathematics Makes Sense 4*
6. Demonstrate an understanding of multiplication (2- or 3-digit by 1-digit) to solve problems by: • using personal strategies for multiplication with and without concrete materials • using arrays to represent multiplication • connecting concrete representations to symbolic representations • estimating products.	Unit 8, Lesson 1, pp. 278–281; Unit 8, Lesson 2, pp. 282–284; Unit 8, Lesson 3, pp. 285–287; Unit 8, Lesson 5, pp. 290–292; Unit 8, Lesson 6, pp. 293, 294; Unit 8, Lesson 7, pp. 295–298; Unit 8, Unit Problem, pp. 314, 315
7. Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by: • using personal strategies for dividing with and without concrete materials • estimating quotients • relating division to multiplication.	Unit 8, Lesson 8, pp. 299–301; Unit 8, Lesson 9, pp. 302–304; Unit 8, Lesson 10, pp. 305–307; Unit 8, Lesson 11, pp. 308–310; Unit 8, Game, p. 311; Unit 8, Unit Problem, pp. 314, 315
8. Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to: • name and record fractions for the parts of a whole or a set • compare and order fractions • model and explain that for different wholes, two identical fractions may not represent the same quantity • provide examples of where fractions are used.	Unit 5, Lesson 1, pp. 174–177; Unit 5, Lesson 2, pp. 178, 179; Unit 5, Lesson 3, pp. 180–182; Unit 5, Lesson 4, pp. 183–185; Unit 5, Lesson 5, pp. 186, 187; Unit 5, Lesson 6, pp. 188, 189; Unit 5, Lesson 7, pp. 190–192; Unit 5, Lesson 8, pp. 193–196; Unit 5, Unit Problem, pp. 218, 219
9. Describe and represent decimals (tenths and hundredths) concretely, pictorially and symbolically.	Unit 5, Lesson 9, pp. 197–199; Unit 5, Lesson 10, pp. 200–202; Unit 5, Lesson 11, pp. 203, 204; Unit 5, Lesson 14, p. 212
10 Relate decimals to fractions (to hundredths).	Unit 5, Lesson 9, pp. 197–199; Unit 5, Lesson 10, pp. 200–202; Unit 5, Lesson 11, pp. 203, 204

Specific Outcomes	*Pearson Mathematics Makes Sense 4*
11. Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by: • using compatible numbers • estimating sums and differences • using mental math strategies to solve problems.	Unit 5, Lesson 12, pp. 205–208; Unit 5, Lesson 13, pp. 209–211; Unit 5, Lesson 14, pp. 212–215; Unit 5, Unit Problem, pp. 218, 219

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 4*
1. Identify and describe patterns found in tables and charts, including a multiplication chart.	Unit 1, Lesson 1, pp. 6–9; Unit 3, Lesson 5, pp. 98, 99
2. Reproduce a pattern shown in a table or chart using concrete materials.	Unit 1, Lesson 3, pp. 14–17
3. Represent and describe patterns and relationships using charts and tables to solve problems.	Unit 1, Lesson 3, pp. 10–13; Unit 1, Unit Problem, pp. 30, 31; Unit 3, Lesson 6, pp. 102, 103; Unit 8, Lesson 4, pp. 288, 289; Unit 8, Lesson 6, pp. 293, 294
4. Identify and explain mathematical relationships using charts and diagrams to solve problems.	Unit 2, Lesson 3, pp. 42–45 Unit 6, Lesson 1, pp. 223–225; Unit 6, Lesson 7, p. 241; Unit 7, Lesson 5, pp. 270, 271

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 4*
5. Express a given problem as an equation in which a symbol is used to represent an unknown number.	Unit 1, Lesson 4, pp. 18–21; Unit 1, Lesson 5, pp. 22–24; Unit 1, Lesson 6, pp. 26, 27
6. Solve one-step equations involving a symbol to represent an unknown number.	Unit 1, Lesson 4, pp. 18–21; Unit 1, Lesson 5, pp. 22–24; Unit 1, Unit Problem, pp. 30, 31

Shape and Space (Measurement)

General Outcome

- Use direct of indirect measurement to solve problems.

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 4*
1. Read and record time using digital and analog clocks, including 24-hour clocks.	Unit 4, Lesson 2, pp. 128–131; Unit 4, Lesson 3, pp. 132–135; Unit 4, Lesson 4, pp. 136–138; Unit 4, Lesson 5, pp. 139–141; Unit 4, Lesson 6, pp. 142–145
2. Read and record calendar dates in a variety of formats.	Unit 4, Lesson 1, pp. 124–127
3. Demonstrate an understanding of area of regular and irregular 2-D shapes by: - recognizing that area is measured in square units - selecting and justifying referents for the units cm^2 or m^2 - estimating area by using referents for cm^2 or m^2 - determining and recording area (cm^2 or m^2) - constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many different rectangles may have the same area.	Unit 4, Lesson 7, pp. 146–149; Unit 4, Lesson 8, pp. 150–152; Unit 4, Lesson 9, pp. 153–155; Unit 4, Lesson 10, pp. 156–158; Unit 4, Lesson 11, pp. 159–161; Unit 4, Lesson 12, pp. 162, 163; Unit 4, Lesson 13, pp. 164, 165; Unit 4, Unit Problem, pp. 168, 169

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 4*
4. Describe and construct rectangular and triangular prisms.	Unit 6, Lesson 1, pp. 222–225; Unit 6, Lesson 2, pp. 226–228; Unit 6, Lesson 3, pp. 229–231; Unit 6, Lesson 4, pp. 232, 233; Unit 6, Unit Problem, pp. 248, 249

Shape and Space (Transformations)

General Outcome

- Describe and analyze position and motion of objects and shapes.

It is expected that students will:

Specific Expectations	*Pearson Mathematics Makes Sense 4*
5. Demonstrate an understanding of line symmetry by: • identifying symmetrical 2-D shapes • creating symmetrical 2-D shapes • drawing one or more lines of symmetry in a 2-D shape.	Unit 6, Lesson 5, pp. 234–236; Unit 6, Lesson 6, pp. 237–240; Unit 6, Lesson 7, pp. 241–244; Unit 6, Unit Problem, pp. 248, 249

Statistics and Probability (Data Analysis)

General Outcomes

- Collect, display and analyze data to solve problems

It is expected that students will:

Specific Outcomes	*Pearson Mathematics Makes Sense 4*
1. Demonstrate an understanding of many-to-one correspondence.	Unit 7, Lesson 1, pp. 254–257; Unit 7, Lesson 2, pp. 258–261; Unit 7, Lesson 3, pp. 262–265; Unit 7, Unit Problem, pp. 274, 275
2. Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions.	Unit 7, Lesson 1, pp. 254–257; Unit 7, Lesson 2, pp. 258–261; Unit 7, Lesson 3, pp. 262–265; Unit 7, Lesson 4, pp. 266–269; Unit 7, Unit Problem, pp. 274, 275