**[C]** Communication **[PS]** Problem Solving **[CN]** Connections **[R]** Reasoning

**[ME]** Mental Mathematics **[V]** Visualization and Estimation **[T]** Technology

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| **Number Strand** | |
| **Student Learning Outcome** | **Math Makes Sense** |
| **N6.1** Demonstrate understanding of place value including:   * greater than one million * less than one thousandth * solving situational questions using technology.   [C, CN, R, PS, T] | Unit 2, Lesson 1, pp. 46–50  Unit 2, Lesson 2, pp. 51–54  Unit Problem, pp. 84, 85  Unit 2, Lesson 3, pp. 55–58  Unit 3, Lesson 1, pp. 88–91 |
| **N6.2** Demonstrate understanding of factors and multiples (concretely, pictorially, and symbolically) including:   * determining factors and multiples of numbers less than 100 * relating factors and multiples to multiplication and division * determining and relating prime and composite numbers * solving situational questions.   [C, CN, ME, PS, R] | Unit 2, Lesson 3, pp. 55–58  Unit 2, Lesson 4, pp. 59–62  Unit 2, Lesson 5, pp. 63–66  Unit 2, Game, p. 67  Unit 2, Lesson 6, pp. 68-69 |
| **N6.3** Demonstrate understanding of the order of operations on whole numbers (excluding exponents) with and without technology. | Unit 2, Lesson 7, pp. 70–73 |
| **N6.4** Extend understanding of multiplication and division to decimals (1-digit whole number multipliers and 1-digit natural number divisors).  [C, CN, ME, PS, R] | Unit 3, Lesson 2, pp. 92–94  Unit 3, Lesson 3, pp. 95–98  Unit 3, Lesson 4, pp. 99–102  Unit 3, Lesson 5, pp. 103–107  Unit 3, Lesson 6, pp. 108–111  Unit 3, Lesson 7, pp. 112–114  Unit 3, Game, p. 115  Unit 3, Lesson 8, pp. 116, 117  Unit 3, Unit Problem, pp. 120, 121 |
| **N6.5.** Demonstrate understanding of percent (limited to whole numbers to 100) concretely, pictorially, and symbolically.  [C, CN, PS, R, V] | Unit 5, Lesson 7, pp. 186–189  Unit 5, Lesson 8, pp. 190–193  Unit 5, Unit Problem, pp. 196, 197 |
| **N6.6** Demonstrate understanding of integers, concretely, pictorially, and symbolically.  [C, CN, R, V] | Unit 2, Lesson 8, pp. 74–77  Unit 2, Lesson 9, pp. 78–81  Unit 2, Unit Problem, pp. 84, 85 |
| **N6.7** Extend understanding of fractions to improper fractions and mixed numbers.  [CN, ME, R, V] | Unit 5, Lesson 1, pp. 162–165  Unit 5, Lesson 2, pp. 166–169  Unit 5, Game, p. 170  Unit 5, Lesson 3, pp. 171–175  Unit 5, Lesson 6, pp. 184, 185  Unit 5, Unit Problem, pp. 196, 197 |
| **N6.8** Demonstrate an understanding of ratio, concretely, pictorially, and symbolically.  [C, CN, PS, R, V] | Unit 5, Lesson 4, pp. 176–179;  Unit 5, Lesson 5, pp. 180–183;  Unit 5, Lesson 6, pp. 184, 185;  Unit 5, Unit Problem, pp. 196, 197 |

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| **Patterns and Relation Strand** | |
| **Student Learning Outcome** | **Math Makes Sense** |
| **P6.1** Extend understanding of patterns and relationships in tables of values and graphs.  [C, CN, PS, R] | Unit 1, Lesson 1, pp. 6–10  Unit 1, Lesson 2, pp. 11–15  Unit 1, Lesson 3, pp. 16, 17  Unit 1, Game, p. 18  Unit 1, Lesson 4, pp. 19–23  Unit Problem, pp. 42, 43 |
| **P6.2** Extend understanding of preservation of equality concretely, pictorially, physically, and symbolically.  [C, CN, R] | Unit 1, Lesson 8, pp. 36–39  Unit Problem, p. 180 |
| **P6.3** Extend understanding of patterns and relationships by using expressions and equations involving variables.  [C, CN, R] | Unit 1, Lesson 4, pp. 19–23  Unit 1, Lesson 7, pp. 33–35  Unit 1, Unit Problem, pp. 42, 43  Unit 6, Lesson 7, pp. 226–230  Unit 6, Lesson 8, pp. 231–234 |

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| **Shape and Space Strand** | |
| **Student Learning Outcome** | **Math Makes Sense** |
| **SS6.1** Demonstrate understanding of angles including:   * identifying examples * classifying angles * estimating the measure * determining angle measures in degrees * drawing angles * applying angle relationships in triangles and quadrilaterals.   [C, CN, ME, PS, R, V | Unit 4, Lesson 1, pp. 126–129  Unit 4, Lesson 2, pp. 130–132  Unit 4, Lesson 3, pp. 133–138  Unit 4, Lesson 4, pp. 139–142  Unit 4, Game, p. 143  Unit 4, Lesson 5, pp. 144, 145  Unit 4, Lesson 6, pp. 146–149  Unit 4, Lesson 7, pp. 150–153  Unit 4, Unit Problem, pp. 156, 157 |
| **SS6.2** Extend and apply understanding of perimeter of polygons, area of rectangles, and volume of right rectangular prisms (concretely, pictorially, and symbolically) including:   * relating area to volume * comparing perimeter and area * comparing area and volume * generalizing strategies and formulae * analyzing the effect of orientation * solving situational questions.   [CN, PS, R, V] | Unit 6, Lesson 7, pp. 226–230  Unit 6, Lesson 8, pp. 231–234  Unit 6, Lesson 9, pp. 235–238  Unit 6, Game, p. 239  Unit 6, Unit Problem, pp. 242, 243 |
| **SS6.3** Demonstrate understanding of regular and irregular polygons including:   * classifying types of triangles * comparing side lengths * comparing angle measures * differentiating between regular and irregular polygons * analyzing for congruence.   [C, CN, R, V] | Unit 6, Lesson 1, pp. 200–204  Unit 6, Lesson 2, pp. 205–208  Unit 6, Lesson 3, pp. 209–213  Unit 6, Lesson 4, pp. 214–218  Unit 6, Lesson 5, pp. 219–223  Unit 6, Lesson 6, pp. 224, 225  Unit 6, Unit Problem, pp. 242, 243 |
| **SS6.4** Demonstrate understanding of the first quadrant of the Cartesian plane and ordered pairs with whole number coordinates.  [C,CN, V] | Unit 1, Lesson 5, pp. 24–28  Unit 1, Unit Problem, pp. 42, 43  Unit 8, Lesson 1, pp. 290–294  Unit 8, Lesson 2, pp. 295–300  Unit 8, Technology Lesson, pp. 301, 302  Unit 8, Game, p. 321 |
| **SS6.5** Demonstrate understanding of single and combination transformations of 2-D shapes (with and without the use of technology) including:   * identifying * describing * analyzing * performing.   [C, CN, R, T, V] | Unit 8, Lesson 3, pp. 303–307  Unit 8, Lesson 4, pp. 308–312  Unit 8, Lesson 5, pp. 313–317  Unit 8, Lesson 6, pp. 318, 319  Unit 8, Technology Lesson, p. 320  Unit 8, Game, p. 321  Unit 8, Unit Problem, pp. 324, 325 |

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| **Statistics and Probability Strand** | |
| **Student Learning Outcome** | **Math Makes Sense** |
| **SP6.1** Extend understanding of data analysis to include:   * line graphs * graphs of discrete data * data collection through questionnaires, experiments, databases, and electronic media * interpolation and extrapolation.   [C, CN, PS, R, V, T] | Unit 7, Lesson 1, pp. 248–251  Unit 7, Lesson 2, pp. 255–258  Unit 7, Lesson 3, pp. 259–262  Unit 7, Lesson 4, pp. 263–266  Unit 7, Lesson 5, pp. 267–270  Unit 7, Technology Lesson, pp. 252–254  Unit Problem, pp. 286, 287 |
| **SP6.2** Demonstrate understanding of probability by:   * determining sample space * differentiating between experimental and theoretical probability * determining the theoretical probability * determining the experimental probability * comparing experimental and theoretical probabilities.   [C, PS, R, T] | Unit 7, Lesson 6, pp. 271–275  Unit 7, Lesson 7, pp. 276–279  Unit 7, Lesson 8, pp. 282, 283  Unit 7, Technology Lesson, p. 280  Unit 7, Game, p. 281  Unit 7, Unit Problem, pp. 286, 287 |