4th GRADE MATHEMATICS

Cardinal Newman Standards: Catholic Identity Integration

- **CS.M.K6.GS3:** Recognize the power of the human mind as both a gift from God and a reflection of Him in whose image and likeness we are made.
  (CCSSI.M.4.OA.2; OA.3; OA.5; NBT.5; NBT.6; NF.1; NF.2; NF.4; NF.7; MD.2; MD.3; MD.7; G.2; G.3)
- **CS.M.K6.GS4:** Survey the truths about mathematical objects that are interesting in their own right and independent of human opinion.
  (CCSSI.M.4.OA.1; OA.4; OA.5; NBT.1; NBT.3; NBT.4; NF.1; NF.3; NF.6; MD.1; MD.5; MD.7; G.2; G.3)
- **CS.M.K6.DS4:** Exhibit joy at solving difficult mathematical problems and operations
  (CCSSI.M.4.OA.2; OA.3; NBT.2; NBT.5; NBT.6; NF.2; NF.4; MD.2; MD.3; MD.4; MD.6; MD.7; G.3)

Priority Skills	Supporting Skills
• Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. • Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. • Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers. • Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. • Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators. • Solve word problems involving multiplication of a fraction by a whole number. • Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money. • Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	• Interpret a multiplication equation as a comparison, distinguishing multiplicative comparison from additive comparison. • Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. • Compare two fractions with different numerators and different denominators. • Compare two decimals to hundredths by reasoning about their size. • Know relative sizes of measurement units within one system of units. • Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. • Identify line-symmetric figures and draw lines of symmetry.

Priority Skills (cont.)	Supporting Skills (cont.)
• Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. • Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems.	*(see previous page)*

Essential Questions

- How can Mathematical formulas and constants strengthen our understanding of what it means for something to be "true"?
- What best practices can we implement to compare fractions to decimals and vice-versa?
- How can we apply our knowledge of angles and lines to identify shapes, as well as find specific measurements within those shapes?
- Why is a digit's precise placement within any given number important to understanding the digit's value?

Vital Vocabulary

- Acute, Angle, Area, Common Denominator, Decompose, Dividend, Divisor, Endpoint, Equivalence, Factor, Interpret, Mixed Number, Multiple, Notation, Obtuse, Parallel, Perimeter, Perpendicular, Point, Properties, Quotient, Ray, Right (Angle), Segment, Symmetry

Additional Resources: Cardinal Newman Mathematics Resources, Appendix F