



Shakopee Area Catholic School  
Math Standards and Benchmarks  
Grade Level: 3

**The students will apply skills of mathematical representations, communication and reasoning.**

1. Communicate reason and represent situations mathematically.
2. Solve problems by distinguishing relevant from irrelevant information, sequencing and prioritizing information and breaking multi-step problems into simpler parts.
3. Evaluate the reasonableness of the solution by considering appropriate estimates and the context of the original problem.
4. Know when it is appropriate to estimate and when an exact answer with whole numbers, fractions or decimals is needed.
5. Express a written problem in suitable mathematical language, solve the problem and interpret the result in the original context.
6. Support mathematical results using pictures, numbers and words to explain why the steps in a solution are valid and why a particular solution method is appropriate.

**The students will represent whole numbers in various ways to quantify information and to solve real-world and mathematical problems. The students will understand the concept of place value, decimals and common fractions.**

1. Read, write with numerals, compare and order whole numbers to 999,999.
2. Represent up to 4-digit whole numbers in various ways maintaining equivalence, such as expanded form,  $3206 = (32 \times 100) = 3200 + 6$ . (expanded form)
3. Know how fractions are related to the whole, such as four-fourths equal a whole or three-fourths equal three of four equal parts of a whole.
4. Represent and write fractions with pictures, models and numbers.

**The students will be able to compute fluently and make reasonable estimates with fractions, decimals, and whole numbers, in real-world and mathematical problems.**

1. Read and interpret data from circle graphs using halves, thirds and quarter.
2. Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key.
3. Explore the basic concept of probability.

**The students will understand addition and subtraction and how they relate to one another. The students will understand the concepts of multiplication and division.**

1. Use addition of up to three whole number addends, containing up to four digits each in real-world and mathematical problems.
2. Use subtraction with up to three digit whole numbers in real-world and mathematical problems.
3. Use the inverse relationship of addition and subtraction to compute and check results.
4. Demonstrate mastery of basic addition facts for addends 0 through 12, without a calculator.
5. Demonstrate mastery of subtraction facts that are inverses of the basic addition facts, without a calculator.
6. Demonstrate an understanding of the multiplication facts through 12 using concrete models.
7. Use models to solve multiplication and division problems and use number sentences to record the solutions.

**The students will measure and calculate length, time, weight, temperature, and money using appropriate tools and units to solve real-world and mathematical problems.**

1. Select appropriate tools and identify the appropriate unit to measure time, length, weight, and temperature.
2. Find the perimeter of a polygon with whole number sides.
3. Know relationships between units of length in a system of measurement, such as 12 inches equal 1 foot.
4. Tell time to the minute using digital and analog time and elapsed time to a minute.
5. Make change using as few coins as possible up to \$1.00.
6. Use model to solve multiplication and division problems and use number sentences to record the solutions.

**The students will understand and describe patterns in numbers, shapes, tables and graphs.**

1. Create and identify patterns in numbers and shapes and explain how to extend those patterns.
2. Classify shapes by specified attributes.
3. Identify, describe, and classify two and three dimensional shapes according to number and length of sides and kinds of angles.
4. Add and subtract whole numbers in the correct order to solve real-world and mathematical problems.
5. Identify a missing number or operation in a simple arithmetic equation such as  $3 - 4 = ?$
6. Identify lines of symmetry in geometric shapes.
7. Recognize and predict the position and orientation of a shape after a single flip, slide or turn.