

**Benton Community Schools**  
**Standards and Benchmarks**  
**Mathematics K-6**

1. Understand the general uses of mathematics
2. Uses a variety of strategies in the problem solving process
3. Links concepts and procedures to develop and use computational techniques
4. Applies the concepts of geometry
5. Uses data collection, analysis, statistics and probability to solve problems
6. Applies the basic properties of algebra

**Standard 1 Understand the general uses of mathematics**

K-2 Benchmarks

1. Understands that a number is a symbol that represents a given quantity
2. Orders a set of 3 numbers up to 100
3. Uses counting to reach a given number

3-4 Benchmarks

1. Understands the difference between odd and even numbers
2. Understands the meaning of whole number 100,000 place value
3. Orders and compares numbers

5-6 Benchmarks

1. Understands place value from 10 thousandth to billions
2. Understands the relationship of fractions to decimals and to whole numbers
3. Understands the characteristics of mixed numbers

**Standard 2 Uses a variety of strategies in the problem solving process**

K-2 Benchmarks

1. Represents problems using numbers, manipulatives, or drawings to solve problems
2. Explain to others how a numerical problem was solved

3-4 Benchmarks

1. Check the results through estimation
2. Identifies a variety of strategies for a given problem situation

#### 5-6 Benchmarks

1. Determines appropriate computation method in problem-solving (pencil/paper, mental, or calculator)
2. Distinguishes between important and non-important when solving problem
3. Uses appropriate strategy to solve problems
4. Checks results through estimation

### **Standard 3 Links concepts and procedures to develop and use computational techniques**

#### K-2 Benchmarks

1. Adds and subtracts whole numbers with accuracy
2. Uses addition

#### 3-4 Benchmarks

1. Adds, subtracts, multiplies, and divides whole numbers with accuracy
2. Rounds whole numbers

#### 5-6 Benchmarks

1. Mentally adds, subtracts, multiplies, and divides basic combinations of whole numbers with reasonable accuracy
2. Uses basic estimating techniques choose appropriate (whole # and decimals)
3. Round whole numbers and decimals to a given place value
4. Add, subtract, multiplies and divides whole numbers and decimals with accuracy

### **Standard 4 Applies the concepts of geometry**

#### K-2 Benchmarks

1. Understand the basic properties between circles, squares and triangles
2. Understands the concepts inside, outside and between
3. Understands that shapes such as circles, squares and triangles can be found in our environment
4. Understand that putting different shapes together can make patterns

#### 3-4 Benchmarks

1. Understand the basic characteristics of angles
2. Understand sides, corners, points, lines, and segments
3. Understand the relationship of plane figures to space figures

#### 5-6 Benchmarks

1. Measures angles to a given degree of accuracy
2. Understands the basic characteristics of angles
3. Understands the concepts parallel, perpendicular, congruence and symmetry
4. Uses motion geometry (i.e., flips, turns, and slides) to investigate concepts of symmetry, similarity and congruence

#### **Standard 5 Uses data collection, analysis, statistics and probability to solve problems**

#### K-2 Benchmarks

1. Understands that objects or events can be organized and recorded in simple graphs

#### 3-4 Benchmarks

1. Understand that some events are more likely to happen than others
2. Construct and interpret simple pictographs, bar graphs, pie charts, and line graphs
3. Understand that data comes in many different forms and that collecting, organizing, and displaying data can be done in many ways

#### 5-6 Benchmarks

1. Understand similarities and differences between tables, bar graphs and circle graphs
2. Construct, read and interpret data in charts, tables, plots and graphs (bar, circle, and line)

#### **Standard 6 Applies the basic properties of algebra**

#### K-2 Benchmarks

1. Recognizes basic number patterns
2. Writes a sentence to represent a real life problem

#### 3-4 Benchmarks

1. Can find a missing number in a number sentence
2. Understands at a very basic level, mathematics is the study of many kinds of patterns
3. Uses patterns and relationships to represent mathematical situations

## 5-6 Benchmarks

1. Understands that an algebraic expression contains a variable which is a symbol representing an unknown quantity
2. Uses patterns and relationships to represent mathematical situations