

# Elementary Math

**Purpose:** This class can earn a math credit for homeschoolers. Math is an essential skill that is used everyday in a multitude of ways. Learning it can be boring but I will try to make it as fun as I can!

**Format:** This is a 6-week class. At the beginning of each week there will be a pre-recorded video sent out along with the necessary worksheet(s). The student is expected to learn material and complete the worksheets, if applicable. (If they have any questions, they may email me for help). I will hold a live class Thursday or Friday to make sure they understand the material, answer questions, and do any fun activity. Groups of children around the same age/grade level is necessary.

## Kindergarten:

### Week #1: Counting & Cardinality

- Count to 100 by ones and tens
- Count forward beginning from a given number within the known sequence (instead of having to begin at 1)
- Write numbers 0 to 20

### Week #2: Operations & Algebraic Thinking

- Add and subtract within 5
- Solve addition and subtraction word problems

### Week #3: Number & Operations in Base Ten

- Work with numbers 11-19
  - Naming the place value (ones and tens place)

### Week #4: Measurement & Data

- Length and weight
- Compare two objects with a measurable attribute in common to see which has “more than” or “less than”

### Week #5: Geometry

- Name shapes
- Identify shapes as two-dimensional or three-dimensional
- Position objects using terms such as “above,” “below,” “beside,” “in front of,” “behind,” and “next to.”
- Model shapes in the world by building shapes from components (ex. Sticks and clay balls) and drawing shapes.
- Compose simple shapes to form larger shapes (ex. Can these two triangles make a rectangle?)

## Week #6: Review/Assessment

## 1<sup>st</sup> Grade:

### Week #1: Operations & Algebraic Thinking

- Add and subtract within 20
- Use addition and subtraction within 20 to solve word problems
- Solve word problems that call for adding three whole numbers whose sum is less than or equal to 20

### Week #2: Number & Operations in Base Ten

- Count to 120 starting with any number less than 120
- Place value (hundredths place)

### Week #3: Measurement & Data

- Order three objects by length, compare the lengths of two objects indirectly by using a third object
- Tell and write time in hours and half-hours using analog and digital clocks

### Week #4: Geometry

- Draw two-dimensional shapes (trapezoids, half-circles, squares) and three-dimensional shapes (cubes, rectangle prisms, circular cylinders) to make new shapes
- Partition circles and rectangles into two and four equal shares using the words “halves,” “fourths, and “quarters.”

### Week #5: Applying Math in Real Life

- Examples can include: sharing a family pizza, growth chart, building blocks, etc.

## Week #6: Review/Assessment

### 2<sup>nd</sup> Grade:

#### Week #1: Operations & Algebraic Thinking

- Adding and subtracting within 100
- Grouping objects up to 20 (counting in twos) and writing an equation

#### Week #2: Number & Operations in Base Ten

- Review of place value (ex. 684 equals 6 hundreds, 8 tens, and 4 ones)
- Count within 1000; skip-count by 5s, 10s, and 100s
- Read and write numbers to 1000 using standard and word form
- Compare numbers using the symbols  $<$ ,  $>$ , and  $=$

#### Week #3: Measurement & Data

- Measure objects by using a tool such as a ruler, yard stick, or measuring tape
- Estimate lengths using units of inches, feet, centimeters, and meters.
- Tell and write time from analog and digital clocks to the nearest 5 minutes using a.m. and p.m.
- Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies' using \$ and ¢ symbols.
- Draw a graph and bar graph (with single-unit scale) to represent a data scale of up to four categories

#### Week #4: Geometry

- Recognize and draw shapes having specified attributes, such as given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes
- Partition a rectangle into rows and columns of the same size and count to find the total number of them
- Partition circles and rectangles into two, three, or four equal parts using the words "halves," "thirds," "half of," and "a third of."

#### Week #5: Applying Math in Real Life

- Examples can include: sharing a chocolate bar, progress chart, measuring building materials/plant space, etc.

## Week #6: Review/Assessment

### 3<sup>rd</sup> Grade:

#### Week #1: Operations & Algebraic Thinking

- Multiplication and division within 100
- Word problems using multiplication and division within 100

#### Week #2: Number & Operations in Base Ten

- Rounding whole numbers to the nearest 10 or 100
- Adding and subtracting within 1000

#### Week #3: Number & Operations – Fractions

- Introducing fractions
- Comparing fractions using the symbols  $<$ ,  $>$ , and  $=$

#### Week #4: Measurement & Data

- Solve word problems using time
- Measuring liquid volumes and masses using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide of the same units
- Measuring temperatures

#### Week #5: Geometry

- Review of shapes and categorizing them
- Review of partitioning shapes

## Week #6: Review/Assessment

### 4<sup>th</sup> Grade:

#### Week #1: Operations & Algebraic Thinking

- Solve multistep word problems

#### Week #2: Number & Operations in Base Ten

- Introductions to decimals

#### Week #3: Number & Operations – Fractions

- Review fractions
- Add and subtract fractions with like denominators

#### Week #4: Measurement & Data

- Solve problems involving measurement and conversation of measurements (ex. hr, min, sec)
- Plotting data on a graph (line and bar)

#### Week #5: Geometry

- Introduction to angles
- Draw points, lines, line segments, rays, angles (right, acute, obtuse)

#### Week #6: Review/Assessment

### 5<sup>th</sup> Grade:

#### Week #1: Operations & Algebraic Thinking

- Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols
- Practicing order of operations (PEMDAS a.k.a. “Please Excuse My Dear Aunt Sally”)

#### Week #2: Number & Operations in Base Ten

- Comparing decimals using  $<$ ,  $>$ , and  $=$
- Multiplying and dividing decimals

#### Week #3: Number & Operations – Fractions

- Add and subtract fractions with unlike denominators (including mixed numbers)
- Using this in the real world

#### Week #4: Measurement & Data

- Convert like measurements units withing a given measurement system (ex. convert 5 cm to 0.05 m)
- Cubic units

#### Week #5: Geometry

- Introduction to points on the coordinate plane (ex. x-axis and x-coordinate, y-axis and y-coordinate)

#### Week #6: Review/Assessment

### 6<sup>th</sup> Grade:

## Week #1: Ratios & Proportional Relationships

- Understanding ratios
- Solve simple problems using ratios

## Week #2: The Number System

- Multiplying and dividing fractions
- Word problems using multiplying and dividing fractions
- Multiply and divide decimals

## Week #3: Expression & Equations

- More on order of operations
- Furthering understanding of arithmetic to algebraic expressions

## Week #4: Geometry

- Solving real world problems involving area, surface area, and volume

## Week #5: Statistics & Probability

- Understanding statistical variability
- Understanding distributions

## Week #6: Review/Assessment

Note: If a parent feels that their child excels or struggles in math, I have no problems with them placing their child in a “grade” that they feel will better meet their needs.