6th Grade Math Curriculum

In sixth grade, students cover three main areas in math: Percentage & Ratios, 2D and 3D Geometry, and Pre-Algebra concepts. We will cover each of these in detail with lots of hands-on practical applications for all areas. The following information will explain the steps you should take to meet your child's 6th grade math goals.

What Math Should a 6th Grader Already Know?

A sixth-grade math student should be able to perform the following:

- Be comfortable with all four operations (addition, subtraction, multiplication and division) with both fractions *and* decimals
- Measure angles with protractors
- Determine the correct place value
- Convert decimals to fractions and vice versa
- Calculate area and perimeter for basic geometry shapes (squares, rectangles and circles)
- Be developing their spatial sense with 2D and 3D geometry
- Able to handle measurement calculations for both standard and metric systems (and find their equivalents)

What Do 6th Graders Learn in Math?

The major math concepts covered for a sixth-grade curriculum are:

- Fractions & Decimal Review
- Ratios, Proportion and Unit Rates
- Percent and equivalent Fraction and Decimal Numbers
- Percent Proportion
- Percent Change & Percent Error
- Simple & Compound Interest
- Number Lines, Absolute Values & Inequalities
- Geometry: Point, Line, Plane, Angles, Triangles, Quadrilaterals, Circles
- Plane Geometry: Area and Perimeter for Basic and Composite Shapes
- 3D Geometry: Surface Area & Volume of Pyramids, Prisms, Cylinders and Spheres
- Operations on Integers (Prime Factorization, Positive & Negative Numbers Operations)
- Variables, Terms & Expressions (Evaluating Expressions, Exponents)
- Graphing on the Coordinate Plane

SCHEDULING TIPS! Be sure to include a bit of wiggle room in case your student needs extra time with a math topic. Also note that students may do Geometry at any time during the year.

For example, your schedule might look like this for a **Mastery Approach**:

September Percent Session #1: (Beginner & Intermediate)	**October** Percent Session #2: (Beginner & Intermediate Level)	**November** Percent Session #3: (Beginner & Intermediate Level)	**December** Percent Session #4 (Beginner & Intermediate Level)
January Percent Session #5 (Beginner & Intermediate Level) Percent Session #6 (Beginner)	**February** Percent Session #6 (Intermediate Level) Percent Session #7 (Beginner & Intermediate Level)	**March** Geometry #1-4	**April** Geometry #5-6 Pre-Algebra #1-2
May Pre-Algebra #3-5	**June** Percent Review Test Math Camp	**July** Percent #1-4: Advanced Level Labs	**August** Percent #5-7 Advanced Level Labs

And here's an example of your schedule using a **Spiral Approach**:

September Percent Session #1: (Beginner) Percent Session #2: (Beginner)	**October** Percent Session #3: (Beginner) Percent Session #4: (Beginner & Intermediate)	**November** Percent Session #5: (Beginner & Intermediate Level) Percent Session #6: (Beginner Level)	**December** Percent Session #1 (Intermediate Level)
January Percent Session #2 (Intermediate Level) Percent Session #3 (Intermediate Level)	**February** Percent Session #6 (Intermediate Level) Percent Session #7 (Beginner & Intermediate)	**March** Geometry #1-4	**April** Geometry #5-6 Pre-Algebra #1-2
May Pre-Algebra #3-5	**June** Percent Review Test Math Camp	**July** Percent #1-4: Advanced Level Labs	**August** Percent #5-7 Advanced Level Labs

6th Grade Math Lesson Plan (36 weeks) – Spiral Approach

Spiral Approach: Students complete just the Beginner Level (including workbook assignments) and then move onto next concept, returning to go into more depth for the second pass through the content in the Intermediate level. This approach is good for students that are quick to pick up concepts, enjoy variety and need a review on a regular basis to retain information.

Fall Term: Percent *Spend two weeks on each of the following*

- Session #1: Intro to Percents & Personal Finances (Beginner Level)
- Session #2: Percent Proportion (Beginner Level)
- Session #3: Multi-Step Percent Calculations (Beginner Level)
- Session #4: Percent Change (Beginner & Intermediate Level)
- Session #5: Percent Error (Beginner & Intermediate Level)
- Session #6: Simple & Compound Interest (Beginner Level)
- Session #1: Intro to Percents & Personal Finances (Intermediate Level)

Winter / Spring Term: Percent *Spend two weeks on each of the following*

- Session #2: Percent Proportion (Intermediate Level)
- Session #3: Multi-Step Percent Calculations (Intermediate Level)
- Session #6: Simple & Compound Interest (Intermediate Level)
- Session #7: Review (Beginner & Intermediate Level)

Spring Term: Geometry (March-April) *Spend 1-2 weeks on each of the following*

- Session #1: Geometry Basics
- Session #2: Area of Shapes
- Session #3: Composite Figures
- Session #4: Circles
- Session #5: 3D Figures & Nets
- Session #6: Volume

Spring Term: Pre-Algebra (April-May) *Spend 1-2 weeks on each of the following*

- Session #1: Operations on Integers
- Session #2: Operations on Integers
- Session #3: Variables, Terms & Expressions
- Session #4: Variables, Terms & Expressions
- Session #5: Graphing Ordered Pairs

Summer Review: Full Review for Graduating 6th Graders – not included in the 36 weeks count

- Series of 10 Full Review Sessions

6th Grade Math Lesson Plan (36 weeks) – Mastery Approach

Mastery Approach: Students complete both Beginner and Intermediate Levels before moving to next concept. Good for students that prefer a slower, more in-depth study pace that focuses on just one new concept at a time.

Fall Term: Percent *Spend two weeks on each of the following*

- Session #1: Intro to Percents & Personal Finances (Beginner Level)
- Session #1: Intro to Percents & Personal Finances (Intermediate Level)
- Session #2: Percent Proportion (Beginner Level)
- Session #2: Percent Proportion (Intermediate Level)
- Session #3: Multi-Step Percent Calculations (Beginner Level)
- Session #3: Multi-Step Percent Calculations (Intermediate Level)
- Session #4: Percent Change (Beginner & Intermediate Level)

Winter / Spring Term: Percent *Spend two weeks on each of the following*

- Session #5: Percent Error (Beginner & Intermediate Level)
- Session #6: Simple & Compound Interest (Beginner Level)
- Session #6: Simple & Compound Interest (Intermediate Level)
- Session #7: Review (Beginner & Intermediate Level)

Spring Term: Geometry (March-April)

- Session #1: Geometry Basics
- Session #2: Area of Shapes
- Session #3: Composite Figures
- Session #4: Circles
- Session #5: 3D Figures & Nets
- Session #6: Volume

Spring Term: Pre-Algebra (April-May)

- Session #1: Operations on Integers
- Session #2: Operations on Integers
- Session #3: Variables, Terms & Expressions
- Session #4: Variables, Terms & Expressions
- Session #5: Graphing Ordered Pairs

Summer Review: Full Review for Graduating 6th Graders – not included in the 36 weeks count

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