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

A YEAR AT A GLANCE 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. The sequence below is our recommendation for a full year course:

Summer Term: Review

- Multiplication Table Workshop (For numbers 1-12 as needed)
- Arithmetic Workshop Review (Review before starting Percent if needed)

September	October	November	December
Percent Session #1: Introduction	*Percent Session #2:* Percent Proportion	*Percent Session #3:* Multi-Step Percent Calculations	Two weeks of extra practice if needed.
January *Percent Session #4:* Percent Change	**February** *Percent Session #5:* Percent Error	**March** *Percent Session #6:* Simple & Compound Interest	**April** *Percent Session #7:* Percent Calculations
May *Geometry Sessions #3-6*	**June** Math Camp *Full Lower Level Review Workshop*	**July** Percent #1-4: *Advanced Level Labs*	**August** Percent #5-7: *Advanced Level Labs*

6ᵗʰ Grade Math Lesson Plan (36 weeks)

Summer Term: Review
Spend 1-2 weeks as needed:

- Multiplication Table Workshop
- Arithmetic Workshop Review

Fall Term: Percent
Spend one month on each of the following

- Session #1: Intro to Percents
- Session #2: Percent Proportion
- Session #3: Multi-Step Calculations

Winter / Spring Term: Percent
Spend time on each of the following

- Session #4: Percent Change (4 weeks)
- Session #5: Percent Error (3 weeks)
- Session #6: Interest (4 weeks)
- Session #7: Review (2 weeks)

Spring Term: Geometry
Spend two weeks on each of the following:

- Session #3: Composite Shapes
- Session #4: Circles
- Session #5: Surface Area
- Session #6: Volume

Summer:
Full Review for Graduating 6ᵗʰ Graders
Series of 10 Full Review Sessions

Optional: These are bonus real-world applications of the skills mastered this year.
Advanced Labs 1-7