### 5th Grade Math Curriculum

In fifth grade, students will be building on their arithmetic abilities with whole numbers and fractions as they move into the world of decimals. Fifth graders also are introduced to the metric of measurement and basic geometry concepts like circles, quadrilaterals, and composite shapes.

A fifth-grade math curriculum starts with place value, then moves into calculating decimal numbers from fractions. Students begin to understand that fractions are really just little division problems as they create decimal equivalents for fractions and mixed numbers. The following information will explain the steps you should take to meet your child's 5<sup>th</sup> grade math goals.

### What Math Should a 5th Grader Already Know?

A fifth-grade math student should be able to perform all four operations (addition, subtraction, multiplication and division) with whole numbers *and* fractions. Students should also have memorized the multiplication table through 12, so it's easy to move onto the next level in math without getting hung up on basic multiplication. Fifth graders also are able to measure in the standard system of measurement and work with those measurements to solve real-world problems.

## What Do 5th Graders Learn in Math?

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

- Multiplication Table (if not memorized yet)
- Place Value
- Converting Fractions to Decimals
- Operations with Decimals (addition, subtraction, multiplication and division)
- Converting Mixed Numbers and Improper Fractions to Decimals
- Working with numbers to the thousandths place
- Determine the Least Common Multiple and the Greatest Common Factor
- Representing Word Problems with Math
- Measuring Angles using a Protractor
- Finding the Perimeter and Area of Geometric Shapes
- Measurement in the Metric System

**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	October	November	December
Decimals Session #1:	Decimals Session #2:	Decimals Session #3:	Two weeks of extra
(Beginner &	(Beginner &	(Beginner &	practice if needed.
Intermediate)	Intermediate Level)	Intermediate Level)	
January	February	March	April
Decimals Session #4	Decimals Session #5	Geometry #1-3	Decimals Session #6
(Beginner &	(Beginner &		(Beginner &
Intermediate Level)	Intermediate Level)		Intermediate Level)
May	June	July	August
Decimals Session #7	Decimal Review Test	Decimals #1-4:	Decimals #5-7
(Beginner &		Advanced Level Labs	Advanced Level Labs
Intermediate Level)	Math Camp		

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

September	October	November	December
Decimals Session #1:	Decimals Session #3:	Decimals Session #5:	Decimals Session #7:
(Beginner)	(Beginner)	(Beginner Level)	(Beginner Level)
Decimals Session #2:	Decimals Session #4:	Decimals Session #6:	
(Beginner)	(Beginner)	(Beginner Level)	
January	February	March	April
Decimals Session #1	Decimals Session #3	Geometry #1-3	Decimals Session #5
(Intermediate Level)	(Intermediate Level)		(Intermediate Level)
		Opportunity for any	
Decimals Session #2	Decimals Session #4	make-up work or	Spring Break
(Intermediate Level)	(Intermediate Level)	extra review	
May	June	July	August
Decimals Session #6	Decimal Review Test	Decimals #1-4:	Decimals #5-7
(Intermediate Level)		Advanced Level Labs	Advanced Level Labs
	Math Camp		
Decimals Session #7			
(Intermediate Level)			

# 5<sup>th</sup> 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.

#### Summer Term: Review - not included in the 36 weeks count

- Multiplication Table (For numbers 1-12 as needed)
- Arithmetic Review (Review before starting the academic year)

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

- Session #1: Place Value (Beginner Level)
- Session #2: Converting Decimals & Fractions (Beginner Level)
- Session #3: Adding & Subtracting Decimals (Beginner Level)
- Session #4: Multiplying Decimals (Beginner Level)
- Session #5: Dividing Decimals (Beginner Level)
- Session #6: Dividing Decimals (Beginner Level)
- Session #7: Four Operations with Decimals (Beginner Level)

#### **Winter Term: Decimals** *Spend two weeks on each of the following:*

- Session #1: Place Value (Intermediate Level)
- Session #2: Converting Decimals & Fractions (Intermediate Level)
- Session #3: Adding & Subtracting Decimals (Intermediate Level)
- Session #4: Multiplying Decimals (Intermediate Level)
- Session #5: Dividing Decimals (Intermediate Level)
- Session #6: Dividing Decimals (Intermediate Level)
- Session #7: Four Operations with Decimals (Intermediate Level)

#### Spring Term: Geometry (Join us Live in Spring!) 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

# 5<sup>th</sup> 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.

#### Summer Term: Review (August) - not included in the 36 weeks count

- Multiplication Table (For numbers 1-12 as needed)
- Arithmetic Review (Review before starting Fractions)

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

- Session #1: Place Value (Beginner Level)
- Session #1: Place Value (Intermediate Level)
- Session #2: Converting Decimals & Fractions (Beginner Level)
- Session #2: Converting Decimals & Fractions (Intermediate Level)
- Session #3: Adding & Subtracting Decimals (Beginner Level)
- Session #3: Adding & Subtracting Decimals (Intermediate Level)

#### Winter / Spring Term: Decimals Spend two weeks on each of the following

- Session #4: Multiplying Decimals (Beginner Level)
- Session #4: Multiplying Decimals (Intermediate Level)
- Session #5: Dividing Decimals (Beginner Level)
- Session #5: Dividing Decimals (Intermediate Level)
- Session #6: Dividing Decimals (Beginner Level)
- Session #6: Dividing Decimals (Intermediate Level)
- Session #7: Four Operations with Decimals (Beginner Level)
- Session #7: Four Operations with Decimals (Intermediate Level)

#### Spring Term: Geometry (Join us Live in Spring!) 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