

Course Title

IAA Math 6



INNOVATIVE ARTS ACADEMY

Course Overview

The Grade 6 Math course aims for students to leave with enduring understandings including the relationship between factors and multiples, a deeper understanding of fractions, the use of a four-quadrant coordinate grid, the ability to write and apply algebraic expressions and equations, applying formulas for area and volume, understanding probability, and determining measures of center.

Unit Title

Number Systems and Operations

Time Frame

38 Days

Unit Title

Comparing Things with Ratios and Percents!

Time Frame

45 Days

Unit Title

Expressions & Equations

Time Frame

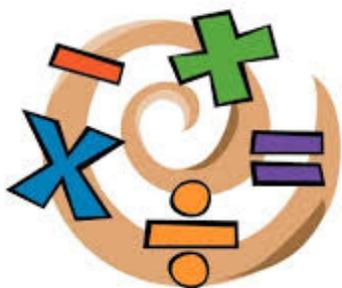
32 Days

Unit Title

Geometry

Time Frame

30 Days



Focus of the Unit

Focus of Unit: This unit focuses on understanding and performing operations with various types of numbers, extending previous understandings to the system of rational numbers and computing fluently with multi-digit numbers

Focus of the Unit

Focus of Unit : Solving real-world problems by applying ratio and rate reasoning. Using tables to construct equivalent ratios and relating quantities with whole-number measurements, finding missing values in these tables, and plotting the pairs of values on a coordinate plane are examples of these practiced methods.

Focus of the Unit

Focus of Unit: This Unit teaches how to use mathematical language, symbols, and structures to represent situations and solve problems. Specifically, students use variables to represent two quantities in a real-world problem that change in relation to each other. Solving and writing expressions and equations is emphasized

Focus of the Unit

Focus of Unit: is centered on geometric concepts and their practical application. This chapter explores the measurement of two-dimensional and three-dimensional figures.

Board Approved 8/2025

Course Title

6th Grade Math



INNOVATIVE
ARTS ACADEMY

Course
Overview

The Grade 6 Math course aims for students to leave with enduring understandings including the relationship between factors and multiples, a deeper understanding of fractions, the use of a four-quadrant coordinate grid, the ability to write and apply algebraic expressions and equations, applying formulas for area and volume, understanding probability, and determining measures of center.

Unit Title

Statistics & Probability

Time
Frame

25



Focus of the Unit

Within this unit, students learn to look at groups of numbers, referred to as data, and figure out what they mean, while also considering what might happen next

Unit Title	The Number System and Operations
Time Frame	38 Days



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Essential Question(s)



How can positive and negative numbers help us understand the world around us?
How do we use math to solve problems involving fractions, decimals, and mixed numbers?

Focus of the Unit



This unit focuses on understanding and performing operations with various types of numbers, extending previous understandings to the system of rational numbers and computing fluently with multi-digit numbers

Standards

M06.A-N.1.1 Solve real-world and mathematical problems involving division of fractions.
M06.A-N.3.1 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values and locations on the number line and coordinate plane.

Learning Targets

I can understand that **positive and negative numbers** can describe things that are opposites in the real world, like temperature or money owed, and know what zero means in these situations.

Learning Targets

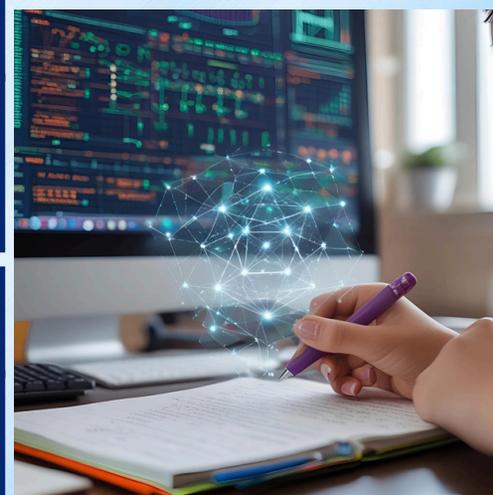
I can find the **greatest common factor (GCF)** and the **least common multiple (LCM)** for numbers

Learning Targets

I can understand that **absolute value** tells me a number's distance from zero on a number line, showing its size or amount

Learning Targets

I can put **integers and other rational numbers** (like fractions and decimals) on a number line and on a coordinate plane



Resources

HMH Math Workbook, Flocabulary, Kahoot, Digital Escape Rooms and projects

Unit Title	Comparing Things with Ratios and Percents
Time Frame	45 Days



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	Essential Question(s)
	<p>How do I use ratio reasoning to solve problems?</p> <p>How do you use equivalent ratios in the real world?</p> <p>How can I use ratios to solve percent problems?</p>

	Focus of the Unit
	<p>This conceptual unit is dedicated to using numerical comparisons to understand relationships between quantities. Ratios, Rates, Unit Rates and Percentages are applied to real world scenarios.</p>

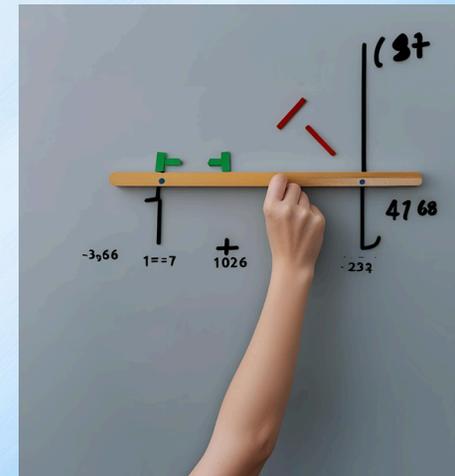
Standards	M06.A-R.1.1 Represent and/or solve real-world and mathematical problems using rates, ratios, and/or percents.
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Learning Targets
I can understand and use ratio language and notation to compare two quantities

Learning Targets
I can create and use tables of equivalent ratios to solve problems and compare ratios.

Learning Targets
I can find and use unit rates to describe relationships

Learning Targets
I can solve problems involving finding a percent of a quantity or finding the whole given a part and the percent



Resources	HMH Math Workbook, Flocabulary, Kahoot, Digital Escape Rooms and projects
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Unit Title	Expressions & Equations
Time Frame	32 Days



Essential Question(s)
 <p>How do I apply problem solving to real-world and mathematical problems? How do I solve a one-variable equation or inequality?</p>

Focus of the Unit
 <p>This Unit teaches how to use mathematical language, symbols, and structures to represent situations and solve problems. Specifically, students use variables to represent two quantities in a real-world problem that change in relation to each other. Solving and writing expressions and equations is emphasized</p>

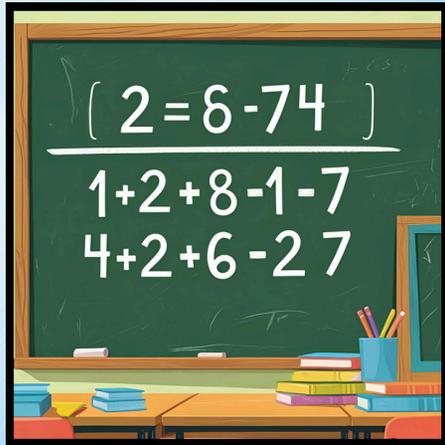
Standards	M06.B-E.1.1 Identify, write, and evaluate numerical and algebraic expressions and equations.
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Learning Targets
I can evaluate numerical expressions involving whole-number exponents

Learning Targets
I can write algebraic expressions from verbal descriptions

Learning Targets
I can use substitution to determine whether a given number makes an equation true

Learning Targets
I can solve equations of the form $px = q$ for cases where p , q , and x are non-negative rational numbers



Resources	HMH Math Workbook, Flocabulary, Kahoot, Digital Escape Rooms and projects
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Unit Title	Geometry
Time Frame	30 Days



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Essential Question(s)
 <p>How do I solve real-world and mathematical problems involving area, surface area, and volume? How do I determine what fits inside a 3 dimensional figure?</p>

Focus of the Unit
 <p>This unit is centered on geometric concepts and their practical application. This chapter explores the measurement of two-dimensional and three-dimensional figures.</p>

Standards	<p>M06.C-G.1.1 Find area, surface area, and volume by applying formulas and using various strategies.</p>
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Learning Targets
I can use formulas to find the area of triangles and special quadrilaterals

Learning Targets
I can represent three-dimensional figures using nets made up of rectangles and triangles

Learning Targets
I can graph polygons on the coordinate plane given coordinates for the vertices

Learning Targets
I can apply techniques for finding surface area in the context of solving real-world and mathematical problems



Resources	HMH Math Workbook, Flocabulary, Kahoot, Digital Escape Rooms and projects
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Unit Title**Statistics & Probability****Time Frame**

25 Days


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Essential Question(s)

What numbers help us understand the "middle" and "spread" of a data set?
 How do we collect, display, and describe data sets?
 How can we use mathematical ideas to describe or measure the likelihood of an event?

Focus of the Unit

Within this unit, students learn to look at groups of numbers, referred to as data, and figure out what they mean, while also considering what might happen next

Standards

M06.D-S.1.1 Display, analyze, and summarize numerical data sets in relation to their context.

Learning Targets

I can recognize that a measure of center summarizes all values with a single number

Learning Targets

I can find the interquartile range (IQR) of a data set

Learning Targets

I can display numerical data in plots on a number line

Learning Targets

I can understand simple theoretical probability
 I can describe how likely something is to happen (probability)

**Resources**

HMH Math Workbook, Flocabulary, Kahoot, Digital Escape Rooms and projects