



Math Summer Learning Resources

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The Math Summer Prep is for newly identified HC students who want to bridge their math skills. Students are working two levels above grade level. For example, a student who has completed fourth grade and starts as a fifth-grade student will study seventh grade math.

Grade 5 Summer Math Guide

❖ How to use these Summer Math Learning Resources

These optional resources provide practice with key math concepts for next year. Please support your child as they use these math resources. Your child does not need to complete every question. Choose the activities that are most helpful for your child.

❖ Preparing for Math 7 in 5th Grade

To support a strong and confident start in math, it's helpful if students are comfortable with the following:

Fraction Understanding

- Recognizing equivalent fractions/simplifying fractions
- Converting between mixed numbers and fractions greater than 1

Operations with Fractions

- Understanding and fluency with adding, subtracting, multiplying and dividing fractions and mixed numbers

Multi-Digit Operations

- Adding, subtracting, multiplying & dividing multi-digit numbers, including decimals to the hundredths

Algebraic Understanding

- Writing, evaluating, and solving one-step equations/inequalities
- Representing and reasoning about quantities using tables, graphs, and expressions
- Applying properties (distributive, commutative, associative) to rewrite and simplify expressions

Coordinate Plane

- Graphing points on a coordinate plane (all four quadrants)

Measurement

- Converting measurements (customary and/or metric)

Geometry

- Classifying 2-dimensional figures
- Finding surface area of shapes such as prisms and pyramids
- Finding volume of prisms

Data & Statistics

- Finding and interpreting mean, median, and mode

❖ Suggested Schedule

Do what works best for your family. While the printable packet and interactive resources do provide some feedback, having an adult there to further explain will help a lot!

Sample 15 min. Schedule:

5 min – warm up with a game* or watch a video to refine a skill

10 min – interactive website or packet work **OR** play a game for 15 minutes*

**If your student does not yet recall multiplication and division facts with fluency (10 – 15 second recall), please have them review their facts daily. The online resource *Multiplication by Heart* has an excellent approach. See link under *Interactive Websites* for details.*

❖ Resources:

Videos: These short videos (~ 5min.) help students “warm up” to math work.

Games: These are games that you can obtain at a store or access online.

Interactive Websites: Khan Academy, Multiplication by Heart, and Polypad.

enVision website: enVision math website provides home activities for families.

Grade 6 https://media.pk12ls.com/curriculum/math/family_engage_cc/g06_welcome_en.html

Grade 5 https://media.pk12ls.com/curriculum/math/family_engage_cc/g05_welcome_en.html

Math Tool Kit: Quick reference sheets students could use in the summer and during the school year.

Fraction Equivalence and All Fraction Operations

Videos	Games	Interactive Websites
<u>Prime & Composite</u>	<u>Prime Climb Board Game</u> (A great non-digital game)	<u>5th Grade Math Tool Kit 1</u>
<u>Prime Number Song</u>	<u>Factris</u>	<u>5th Grade Math Tool Kit 2</u>
<u>GCF & LCM</u> (factor tree)	<u>Factor Game</u>	<u>Multiplication by Heart Flashcards</u>
<u>How to Find GCF & LCM</u> (ladder/upside down division method)	<u>Factorize</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Common Denominator</u> (equivalent fractions)	<u>Product Game</u>	Khan Academy: (ignore the request for donations)
<u>Simplifying Fractions</u>	<u>Pearl Diver</u> (great game for practicing placing values on a number line... eventually gets to fractions!)	<u>Mixed Numbers and Improper Fractions</u>
<u>Change an Improper Fraction to a Mixed Number</u>	<u>Ratio Rumble</u>	<u>Common Denominators</u>
<u>Mixed Number to Improper Fraction</u>		<u>Factors & Multiples</u>
<u>Adding and Subtracting Fractions</u>		<u>Add & Subtract Fractions</u>
<u>Multiplying Fractions</u>		<u>Multiplying & Dividing Fractions</u>
<u>Dividing Fractions</u>		<u>Dividing Fractions by Fractions</u>

Multi-Digit Whole Numbers, Decimal Addition & Subtraction

Videos	Games	Interactive Websites
<u>Addition with Regrouping</u>	<u>Prime Climb</u>	<u>5th Grade Math Tool Kit 1</u>
<u>Subtracting with Regrouping</u>	<u>Dicey Operations</u>	<u>5th Grade Math Tool Kit 2</u>
<u>Subtracting with ALL Regrouping</u>	<u>Gate</u>	<u>Multiplication by Heart Flashcards</u>
<u>Adding and Subtracting Decimal Song</u>	<u>Monster School Bus</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Adding and Subtracting Decimals</u>		<u>Kahn Academy:</u>
<u>Addition and Subtraction of Decimals</u>		<u>Adding Multi-Digit Numbers</u>
<u>Subtracting Decimals</u>		<u>Subtracting Multi-Digit Numbers</u>
		<u>Adding Decimals</u>
		<u>Subtracting Decimals</u>

Multi-Digit Whole Number, Decimal Multiplication

Videos	Games	Interactive Websites
<u>Long Multiplication Song</u>	<u>Prime Climb</u>	<u>5th Grade Math Tool Kit 1</u>
<u>Multiply a Decimal By a Decimal</u>	<u>More Dicey Operations</u>	<u>5th Grade Math Tool Kit 2</u>
<u>Decimal Multiplication</u>	<u>Gate</u>	<u>Multiplication by Heart Flashcards</u>
<u>Multiplying 2-Digit By 1-Digit Numbers</u>	<u>Monster School Bus</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>3-Digit By 1-Digit Multiplication</u>		Khan Academy:
<u>Decimal Multiplication</u>		<u>Multidigit Multiplication</u>
		<u>Multiplying Decimals</u>

Whole Number, Decimal Division

Videos	Games	Interactive Websites
<u>Decimal Multiplication and Division</u>	<u>Prime Climb</u>	<u>5th Grade Math Tool Kit 1</u>
<u>Long Division</u>	<u>The Remainders Game</u>	<u>5th Grade Math Tool Kit 2</u>
<u>Long Division with 2-Digit Divisors</u>	<u>Mobile Puzzles</u>	<u>Multiplication by Heart Flashcards</u>
<u>Long Division with 2-Digit Divisors</u>	<u>Gate</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Dividing Decimals By Whole Numbers</u>		Khan Academy:
<u>Dividing Decimal By a Decimal</u>		<u>Multidigit Division</u>
		<u>Dividing Decimals</u>

Operating with Mixed Numbers

Videos	Games	Interactive Websites
<u>Add and Subtract Mixed Numbers</u>	<u>Prime Climb</u>	<u>5th Grade Math Tool Kit 1</u>
<u>Multiplying a Whole Number By a Fraction</u>	<u>Matching Fractions</u>	<u>5th Grade Math Tool Kit 2</u>
<u>Multiplying Mixed Numbers</u>		<u>Multiplication by Heart Flashcards</u>
<u>Multiplying Mixed Numbers</u>		<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Dividing Mixed Numbers</u>		Khan Academy:
<u>Add, Subtract, Multiply and Divide Mixed Numbers (~19 min)</u>		<u>Add and Subtract mixed Numbers</u>
		<u>Multiplying Mixed Numbers</u>
		<u>Dividing Mixed Numbers</u>

Graphing On a Coordinate Plane & Converting Measurements

Videos	Games	Interactive Websites
<u>Introduce Coordinate Plane</u>	<u>Prime Climb</u>	<u>5th Grade Math Tool Kit 1</u>
<u>Graphing on a Coordinate Plane</u>	<u>Game Over Gopher</u>	<u>5th Grade Math Tool Kit 2</u>
<u>Coordinate Plane Song</u>	<u>Creature Caverns</u>	<u>Multiplication by Heart Flashcards</u>
<u>Metric System Conversion Song</u>	<u>Treasure Hunt</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Ounces, Pounds, and Tons Song</u>	<u>Stock the Shelves</u>	Khan Academy:
<u>Capacity Song</u>	<u>Hot Chocolate Nation</u>	<u>Coordinate Plane Intro</u>
	<u>Sal's Sub Shop</u>	<u>Coordinate Plane</u>
		<u>Converting Units of Measure</u>

Algebraic Understanding

Videos	Games	Interactive Websites
<u>Variables, Expressions and Equations</u>	<u>Prime Climb</u>	<u>5th Grade Math Tool Kit 1</u>
<u>Writing Algebraic Expressions</u>	<u>Mobile Puzzles</u>	<u>5th Grade Math Tool Kit 2</u>
<u>Intro to Evaluating Algebraic Expressions</u>	<u>Who Am I?</u>	<u>Multiplication by Heart Flashcards</u>
<u>Evaluating Expressions with One Variable</u>	<u>Mystery Grid</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Algebra Basics: What is Algebra?</u>	<u>Agrinautica</u>	Khan Academy:
<u>Solving Basic Equations Part 1</u>	<u>Curse Reverse</u>	<u>Substitution and Evaluating Expressions</u>
<u>Solving Basic Equations Part 2</u>	<u>Creature Caverns</u>	<u>Writing Basic Expressions with Variables</u>
<u>Independent and Dependent Variables</u>		<u>Distributive Property with Variables</u>
		<u>Combining Like Terms</u>
		<u>One-Step Addition & Subtraction Equations</u>
		<u>One-Step Multiplication & Division Equations</u>
		<u>Intro to Inequalities with Variables</u>

Area, Perimeter, Surface Area and Volume

Videos	Games	Interactive Websites
Area and Perimeter Song Area of a Triangle Formula for Area of a Triangle- Why? Surface Area- Rectangular Prism Surface Area Of a Triangular Prism Volume	Prime Climb Tilted Squares Zoo Designer Cuboids	5th Grade Math Tool Kit 1 5th Grade Math Tool Kit 2 Multiplication by Heart Flashcards Learning About Polypad: A 10-Minute Tour Khan Academy: Area and Perimeter Area of Triangles Area of Parallelograms Area of Composite Figures Volume with Fractions Volume of Rectangular Prisms Surface Area

Statistics		
Videos	Games	Interactive Websites
<u>Mean, Median, & Mode (11 min)</u> <u>The Mean, Median, & Mode</u> <u>Finding Mean, Median, & Mode</u> <u>Averages Song to the tune of "Hey Diddle Diddle"</u>	<u>Prime Climb</u> <u>Calculate Mean, Median, Mode and Range</u> <u>Its Glow Time</u>	<u>5th Grade Math Tool Kit 1</u> <u>5th Grade Math Tool Kit 2</u> <u>Multiplication by Heart Flashcards</u> <u>Learning About Polypad: A 10-Minute Tour</u> Khan Academy: <u>Statistical Questions</u> <u>Mean and Median</u>