



Math Summer Learning Packet

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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 4 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 6 in 4th Grade: Skills to Build On

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

Whole Number & Decimal Foundations

- Fluently add, subtract, multiply multi-digit whole numbers
- Add and subtract decimals (to the thousandths)
- Understand place value relationships ($\times 10$, $\div 10$, etc.)

Multiplication & Division Fluency

- Know and apply multiplication & division facts (1-12)
- Divide multi-digit whole numbers (using partial products)

Fraction Understanding & Operations (Critical for Math 6)

- Generate and compare equivalent fractions
- Order and compare fractions
- Convert between improper fractions and fractions greater than 1
- Add and subtract fractions (like and unlike denominators)
- Multiply fractions (including fraction \times whole number)
- Understand fraction division conceptually (not full algorithm fluency yet)

Measurement & Geometry

- Solve problems involving area and perimeter
- Understand and find volume of rectangular prisms

❖ Suggested Schedule:

Do what works best for your family. While the printable packet and interactive websites 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: Interactive games accessible online.

Interactive Websites: enVision, Khan Academy, Multiplication by Heart, etc. related to each topic.

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

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

Grade 4 https://media.pk12ls.com/curriculum/math/family_engage_cc/g04_welcome_en.html

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

Review Mult/Div Facts & Multiplying and Dividing by 10, 100, & 1000

Videos	Games	Interactive Websites
<u>Multiplication Facts Review</u>	<u>Blockout</u> (paper or online)	<u>4th Grade Math Tool Kit</u>
<u>Division Song</u>	<u>Who Am I?</u>	<u>Multiplication by Heart Flashcards</u>
<u>Multiplying by 10, 100 & 1000</u>	<u>Mystery Grid</u>	enVision:
<u>Multiplying by Multiples of 10</u>	<u>Agronautica</u>	<u>Grade 4 Topic 3</u>
	<u>Prime Climb Board Game</u> (A great non-digital game)	<u>Grade 5 Topic 1</u>
		Khan Academy: (ignore the request for donations)
		<u>Get Ready for Multiplication</u>
		<u>Basic Multiplication</u>
		<u>Multiplication Tables for 2 - 9</u>
		<u>Multiplication for 10, 11, & 12</u>
		<u>Get Ready for Division</u>
		<u>Powers of 10</u>

Multi-Digit Multiplication with Whole Numbers and Decimals

Videos	Games	Interactive Websites
<p><u>Multiplying 2-Digit by 1-Digit</u></p> <p><u>3-Digit by 1-Digit Multiplication</u></p> <p><u>Decimal Multiplication</u></p> <p><u>Multiply a Decimal By a Decimal</u></p>	<p><u>Mobile Puzzles</u></p> <p><u>Four-Digit Targets</u></p> <p><u>Agrinautica</u></p> <p><u>Gate</u></p> <p><u>Monster School Bus</u></p> <p><u>Prime Climb Board Game</u></p>	<p><u>4th Grade Math Tool Kit</u></p> <p><u>Multiplication by Heart Flashcards</u></p> <p>enVision:</p> <p><u>Grade 5 Topic 3</u></p> <p><u>Grade 5 Topic 4</u></p> <p>Khan Academy:</p> <p><u>Multidigit Multiplication</u></p> <p><u>Multiplying Decimals</u></p>

Dividing Multi-Digit Whole Numbers

Videos	Games	Interactive Websites
<u>Long Division (DMSB)</u>	<u>Mystery Grid puzzle</u>	<u>4th Grade Math Tool Kit</u>
<u>Long Division with 2-Digit Divisors</u>	<u>Who Am I?</u>	<u>Multiplication by Heart Flashcards</u>
<u>Long Division with 2-Digit Divisors (Math Antics - bit longer)</u>	<u>The Legend of Multiplico</u>	enVision:
	<u>Gate</u>	<u>Grade 5 Topic 3</u>
	<u>Prime Climb</u>	<u>Grade 4 Topic 4</u>
		Khan Academy:
		<u>Division Contexts</u>
		<u>Multidigit Division</u>

Adding and Subtracting Whole Numbers & Decimals (Hundredths)

Videos	Games	Interactive Websites
<u>Addition with Regrouping</u>	<u>Got It!</u>	<u>4th Grade Math Tool Kit</u>
<u>Subtracting with Regrouping</u>	<u>Lunch Lady</u>	<u>Multiplication by Heart Flashcards</u>
<u>Subtracting with ALL Regroupings</u>	<u>Gate</u>	<u>Learning About Polypad: A 10-Minute Tour</u>
<u>Subtracting Across the Zeros</u>	<u>Monster School Bus</u>	enVision:
<u>Adding and Subtracting Decimals Song</u>	<u>Prime Climb</u>	<u>Grade 5 Topic 2</u>
<u>Adding and Subtracting Decimals</u>		Khan Academy:
		<u>Multi Digit Addition</u>
		<u>Multi Digit Subtraction</u>
		<u>Subtract Decimals</u>
		<u>Add Decimals</u>

Fractions and Mixed Numbers

Videos	Games	Interactive Websites
<p><u>Modeling Equivalent Fractions</u></p> <p><u>Equivalent Fractions</u></p> <p><u>Equivalent Fractions Song</u></p> <p><u>Comparing and Ordering</u></p> <p><u>Fractions With Number Strips</u></p> <p><u>Change an Improper Fraction to a Mixed Number</u></p> <p><u>How to Change a Mixed Number to an Improper Fraction</u></p>	<p><u>Tony's Fraction Pizza Shop</u></p> <p><u>The Legend of the Golden Pizza</u></p> <p><u>Clara Fraction's Ice Cream Shop</u></p> <p><u>Pearl Diver</u> (great game for practicing placing values on a number line... eventually gets to fractions!)</p> <p><u>Prime Climb</u></p>	<p><u>4th Grade Math Tool Kit</u></p> <p><u>Multiplication by Heart Flashcards</u></p> <p><u>Learning About Polypad: A 10-Minute Tour</u></p> <p>enVision:</p> <p><u>Grade 4 Topic 8</u></p> <p><u>Grade 4 Topic 9</u></p> <p><u>Grade 4 Topic 10</u></p> <p><u>Grade 5 Topic 7</u></p> <p>Khan Academy:</p> <p><u>Comparing and Ordering Fractions</u></p> <p><u>Fractions on a Numberline</u></p> <p><u>Mixed Numbers and Improper Fractions</u></p> <p><u>Common Denominators</u></p>

Add and Subtract Fractions with Like and Unlike Denominators

Videos	Games	Interactive Websites
Adding and Subtracting Fractions Adding Fractions Subtracting Fractions Adding and Subtracting Fractions Song Simplifying Fractions	Prime Climb Sir Math a Lot's Haunted Mansion	4th Grade Math Tool Kit Multiplication by Heart Flashcards Learning About Polypad: A 10-Minute Tour EnVision: Grade 5 Topic 7 Khan Academy: Add and Subtract Fractions (5th Grade)

Multiply and Divide Fractions

Videos	Games	Interactive Websites
<u>Multiplying Fractions</u> <u>Multiplying Fractions</u> <u>Dividing Fractions Song</u> <u>Dividing Fractions</u> <u>Simplifying Fractions</u>	<u>Sir Math a Lot's Haunted Mansion</u> <u>Prime Climb</u>	<u>4th Grade Math Tool Kit</u> <u>Multiplication by Heart Flashcards</u> <u>Learning About Polypad: A 10-Minute Tour</u> EnVision: <u>Grade 5 Topic 8</u> <u>Grade 5 Topic 9</u> Khan Academy: <u>Multiply Fractions (4th Grade)</u> <u>Multiply Fractions (5th Grade)</u> <u>Divide Fractions (5th Grade)</u>

Area, Perimeter and Volume Basics

Videos	Games	Interactive Websites
<p>Area and Perimeter Song</p> <p>Finding Volume With Unit Cubes</p> <p>Volume of Composite Rectangular Prisms</p>	<p>Zoo Designer</p> <p>Prime Climb</p>	<p>4th Grade Math Tool Kit</p> <p>Multiplication by Heart Flashcards</p> <p>Learning About Polypad: A 10-Minute Tour</p> <p>enVision:</p> <p>Grade 4 Lesson 13-6</p> <p>Grade 5 Topic 11</p> <p>Khan Academy:</p> <p>Area and Perimeter</p> <p>Volume</p>