

## Summer ZEARN for Rising 5<sup>th</sup> Graders

### Summer Math Intensive Series: Rising 5<sup>th</sup> Graders

For rising 5th graders, the G4 Summer Intensive Series focuses on fractions and decimals. Students evaluate equivalence, and they learn to extend that understanding to decimal operations. The Summer Intensive Series is intended to ensure students have a solid grasp of these ideas to close out 5th grade successfully.

Content for Rising 5th Graders: 53 Lessons				
Mission	Mission Title	Standards	Lessons	Topics
G4M5	<p><b>Equivalent Fractions</b></p> <p>This Mission teaches students how to manipulate fractions. Students compare fractions, evaluate equivalence, and learn that the same methods they used for whole number operations can be used to add, subtract, and multiply fractions.</p>	<p>4.OA.2</p> <p>4.NBT.6</p> <p>4.NF.1</p> <p>4.NF.2</p> <p>4.NF.3</p> <p>4.NF.4</p>	38	<p>Topic A: Decomposition and Fraction Equivalence</p> <p>Topic B: Fraction Equivalence Using Multiplication and Division</p> <p>Topic C: Fraction Comparison</p> <p>Topic D: Fraction Addition and Subtraction</p> <p>Topic E: Extending Fraction Equivalence to Fractions Greater Than 1</p> <p>Topic F: Addition and Subtraction of Fractions by Decomposition</p> <p>Topic G: Repeated Addition of Fractions as Multiplication</p> <p>Topic H: Exploring a Fraction Pattern</p>

G4M6	<p><b>Decimal Fractions</b></p> <p>Students learn a new and special notation for fractions in this Mission: decimals! They extend their understanding of the base ten system by first exploring equivalence between fractions and decimals. This understanding extends to comparing decimals and adding money.</p>	<p>4.NF.5</p> <p>4.NF.6</p> <p>4.NF.7</p> <p>4.MD.2</p>	15	<p>Topic A: Exploration of Tenths</p> <p>Topic B: Tenths and Hundredths</p> <p>Topic C: Decimal Comparison</p> <p>Topic D: Addition with Tenths and Hundredths</p> <p>Topic E: Money Amounts as Decimal Numbers</p>
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At Zearn, we believe that Summer 2022 is an important opportunity to accelerate our collective work to help all students catch-up and move forward with their learning.

## Introducing Zearn Summer 2022 Math Intensive Series

Zearn's Summer 2022 Intensive Series are designed based on learnings of the over 8.5B math problems completed on our math platform: where students struggle and the specific foundational support that kids need to access grade-level math content. During the academic year, we identify and recommend these foundational lessons to teachers so they can be used for deeper interventions. Our Summer Series pulls-forward these recommendations into coherent summer math experiences. Each Summer 2022 Intensive Series offers coherent, focused 4-week sequences that build the strong foundations all rising 1st through 9th graders need to move forward during the 22-23 academic year.

## Comprehensive materials for 4-6 week programs

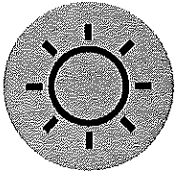
Each Series consists of top-rated materials that can be used flexibly across summer programs:

- **Daily digital math lessons** offer a consistent structure of learning activities, designed to accelerate learning by integrating unfinished learning into the context of new learning. Students explore new concepts with real on-screen teachers, visualization of every math concept, interactive problem solving, and guided paper-and-pencil Student Notes.
- **Materials for hands-on problem solving** offer teachers and tutors daily application problems they can use to facilitate lively math discussions where students explore different ways to solve problems, unlocking creativity and joy with math.
- **Real-time reports on student learning** provide visibility into student learning and where students need additional support to move forward in their learning.

## Focused on the big ideas of math



Each Summer 2022 Math Intensive Series deeply explores the big ideas of math to build the dense connections students need during the upcoming school year. In younger grades, students explore one big idea, like addition and subtraction. In older grades, students tackle longer sequences covering a few big ideas, building a strong foundation in critical capstone content that they will need for success in later grades.

**Recommended Usage:** In each 4-6 week program, rising 1st through 3rd graders should complete 1 lesson each day (~30 minutes). Rising 4th graders through rising 9th graders should double up on lessons, completing 2 lessons each day (~60 minutes) throughout the summer program.



## Summer Reading Bingo Challenge

Your reader can boost their literacy skills all summer long with these fun activities. Have them go for five in a row, or try to fill the whole board!

<p><i>contribution • reduce • estimate • influence • therefore</i></p> <p>Look up the definition of each word, and write it down. Then, write a paragraph using all five words.</p>	<p>Draw a map that shows the setting in a book you're reading. Add details from the book or from your imagination.</p>	<p>Find an example of each of these text features: a table of contents, an index, a glossary, a labeled diagram, a captioned photo, a heading, and a subheading.</p>	<p>Go on a grammar scavenger hunt. In a book you're reading, find and list ten nouns, ten verbs, and ten adjectives.</p>	<p>Interview friends and family members about their favorite books. Ask them to tell you what each book is about and what they like about it.</p>
<p>Read two informational articles on the same topic. List the important details that are included in both texts.</p>	<p>Record a video to show how to make a craft, learn a skill, or play a game. Use words like <i>first, next, while, then, before, now, and finally</i> as you explain what to do.</p>	<p>Read a biography or an autobiography. List five facts you learned from the book.</p>	<p>Start a word collection. Listen for words you don't know, look up their definitions, and write them down. Add a star next to each word every time you use it yourself!</p>	<p>Draw a picture of yourself standing next to a book character. Label details in the picture to show how you and the character are the same and how you are different.</p>
<p>Go on a suffix scavenger hunt. Take a book, and try to find at least one word that ends with each of these suffixes: <i>-ous, -ive, -tion, -ize, -al, and -ness</i>.</p>	<p>Read a new book, and write a review. Describe what you liked and what you didn't like. Share your review with a friend or family member.</p>	<p><b>FREE</b></p>  <p><b>SPACE</b></p>	<p>Write at least one word for each of these Latin roots: <i>ject</i> (to throw), <i>port</i> (to carry), <i>tact</i> (to touch), <i>rupt</i> (to break), <i>form</i> (to make), and <i>vis</i> (to see). Use a dictionary to help!</p>	<p>Read about another part of the world. Create a travel brochure with facts and information, including interesting sights, fun activities, and delicious foods.</p>
<p>Record yourself reading a chapter of a book. Practice first to make your voice sound natural as you read. Share your recording with a younger friend or family member.</p>	<p>Write to your favorite author. Share what you like about their books. Ask a question or suggest an idea for a new book.</p>	<p><i>Spring, duck, toast, note, and park</i> are all multiple meaning words. For each word, draw a picture that shows two different meanings, and write a sentence to describe it.</p>	<p>Read a science fiction or fantasy book. Describe a character who reminds you of someone you know or a scene from the book that reminds you of something in your life.</p>	<p>Tell a story by taking photos to show the setting, the characters, and the major events. Share the photos and your story with a friend or family member.</p>
<p>Read a realistic fiction book. What lesson do the characters learn about life? Write a paragraph about this theme.</p>	<p>Use the letters in <i>Summer Reading Bingo Challenge</i> to make as many smaller words as you can.</p>	<p>In a book you're reading, find five words you don't know. Try to figure out the meaning by looking for clues in the words around it. Then, use a dictionary to check your guesses.</p>	<p>Find a poem you like, and practice reading it aloud. Then, create a beat to go with it. (Try tapping a pencil on a table!) Record yourself reading the poem in rhythm to the beat.</p>	<p>Read two books by the same author. Draw a Venn diagram to show what is similar and what is different.</p> 

## Summer ZEARN for Rising 4<sup>th</sup> Graders

### Summer Math Intensive Series: Rising 4th Graders

For rising 4th graders, the G3 Summer Intensive Series focuses on multiplication and division, which is key to their success in later grades.

Content for Rising 4th Graders: 37 Total Lessons				
Mission	Mission Title	Standards	Lessons	Topics
<b>G3M3</b>	<b>Multiply and Divide Tricky Numbers</b>	3.OA.1 3.OA.2 3.OA.3 3.OA.4 3.OA.5 3.OA.6 3.OA.7 3.OA.8 3.OA.9 3.NBT.3	21	Topic A: The Properties of Multiplication and Division Topic B: Multiplication and Division Using Units of 6 and 7 Topic C: Multiplication and Division Using Units up to 8 Topic D: Multiplication and Division Using Units of 9 Topic E: Analysis of Patterns and Problem Solving Including Units of 0 and 1 Topic F: Multiplication of Single-Digit Factors and Multiples of 10
	This Mission extends multiplication and division to all factors between 0 and 10. Students work deeply with the commutative, distributive, and associative properties, and they'll have problem-solving opportunities at the close of each topic.			
<b>G3M4</b>	<b>Find the Area</b>	3.MD.5 3.MD.6 3.MD.7	29	Topic A: Foundations for Understanding Area Topic B: Concepts of Area Measurement Topic C: Arithmetic Properties Using Area Models Topic D: Applications of Area Using Side Lengths of Figures
	In this Mission, students explore area as an attribute of two-dimensional figures and relate it to their prior understandings of multiplication.			

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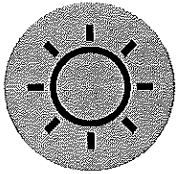
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

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Explore the content of Zearn Summer 2022 Math Intensive Series on the following pages:



## Summer Reading Bingo Challenge

Your reader can boost their literacy skills all summer long with these fun activities. Have them go for five in a row, or try to fill the whole board!

<p>Research your favorite animal. Draw a picture of the animal and its habitat. Then, list five new facts you learned.</p>	<p>Go on a grammar scavenger hunt. In a book you're reading, find and list ten nouns, ten verbs, and ten adjectives.</p>	<p>Find a poem you like, and practice reading it aloud. Then, create a beat to go with it. (Try tapping a pencil on a table!) Record yourself reading the poem in rhythm to the beat.</p>	<p>Interview friends and family members about their favorite books. Ask them to tell you what each book is about and what they like about it.</p>	<p>Read two books by the same author. Draw a Venn diagram to show what is similar and what is different.</p> 
<p>In a book you're reading, find five words you don't know. Try to figure out the meaning by looking for clues in the words around it. Then, use a dictionary to check your guesses.</p>	<p>Read a biography or an autobiography. List three facts you learned from the book.</p>	<p>Record a video to show how to make a craft, learn a skill, or play a game. Use words like <i>first</i>, <i>next</i>, <i>while</i>, <i>then</i>, <i>before</i>, <i>now</i>, and <i>finally</i> as you explain what to do.</p>	<p>Some prefixes are related to numbers. Write at least one word for each of these prefixes: <i>uni-</i> (one), <i>bi-</i> (two), <i>tri-</i> (three), <i>quad-</i> (four), <i>quint-</i> (five), and <i>centi-</i> (hundred).</p>	<p>Draw a map that shows the setting in a book you're reading. Add details from the book or from your imagination.</p>
<p><i>Complex</i>, <i>challenging</i>, <i>elegant</i>, <i>beneficial</i>, and <i>flexible</i> are all describing words. Go on a scavenger hunt for items or pictures that fit each description!</p>	<p>Record yourself reading a chapter of a book. Practice first to make your voice sound natural as you read. Share your recording with a younger friend or family member.</p>	<p><b>FREE</b></p>  <p><b>SPACE</b></p>	<p>Read a new book, and write a review. Describe what you liked and what you didn't like. Share your review with a friend or family member.</p>	<p>There are three ways to pronounce the suffix <i>-ed</i>: /ed/ as in <i>rented</i>, /d/ as in <i>sailed</i>, and /t/ as in <i>jumped</i>. In a book you're reading, find five examples of each sound of <i>-ed</i>.</p>
<p>Go on a prefix scavenger hunt. Take a book, and try to find at least one word that begins with each of these prefixes: <i>pro-</i>, <i>multi-</i>, <i>sub-</i>, <i>trans-</i>, and <i>con-</i>.</p>	<p>Tell a story by taking photos to show the setting, the characters, and the major events. Share the photos and your story with a friend or family member.</p>	<p>Read a science fiction or fantasy book. Describe a character who reminds you of someone you know or a scene from the book that reminds you of something in your life.</p>	<p>Find an example of each of these text features: a table of contents, an index, a glossary, a labeled diagram, a captioned photo, a heading, and a subheading.</p>	<p>Read about another part of the world. Create a travel brochure with facts and information, including interesting sights, fun activities, and delicious foods.</p>
<p>Read two informational articles on the same topic. List the important details that are included in both texts.</p>	<p>Draw a picture of yourself standing next to a book character. Label details in the picture to show how you and the character are the same and how you are different.</p>	<p>Write to your favorite author. Share what you like about their books. Ask a question or suggest an idea for a new book.</p>	<p>Use the letters in <i>Summer Reading Bingo</i> to make as many smaller words as you can.</p>	<p>Go on a suffix scavenger hunt. Take a book, and try to find at least one word that ends with each of these suffixes: <i>-able</i>, <i>-tion</i>, <i>-ous</i>, <i>-ture</i>, and <i>-ive</i>.</p>