## Summer Guidance

## How to Use This Document

Schools and districts provide extended summer learning opportunities for students in a variety of formats. The Math Learning Center has developed this summer guidance to provide flexible options for instructional planning. Each document includes a curated list of tasks, sessions, and resources aligned to the grade-level content recommendations from the Common Core State Standards identified critical areas and the Student Achievement Partners (Achieve the Core) focus documents. In addition, a planning template with sample plans can be found here.

## Grade 4 Critical Content

## From CCSS

(1) Develop understanding and fluency with multi-digit multiplication, and develop understanding of dividing to find quotients involving multi-digit dividends
(2) Develop an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers
(3) Understand that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry

## Grade 4 Major Clusters

## From Achieve the Core

4.OA.A Use the four operations with whole numbers to solve problems
4.NBT.A Generalize place value understanding for multi-digit whole numbers
4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic
4.NF.A Extend understanding of fraction equivalence and ordering
4.NF.B Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers
4.NF.C Understand decimal notation for fractions,
and compare decimal fractions

Fluency Expectation:
4.NBT.B. 4 Add/subtract within 1,000,000

## Suggested Bridges Materials

Familiar Bridges in Mathematics resources can be used flexibly to support summer learning. Grade-level recommendations include suggested activities for each of the following components.

Math at Home (10 minutes/day)
Using familiar routines and designed for flexible use by students, families, and teachers, Math at Home activities can be used as daily warmups to establish a positive classroom culture and support social and emotional learning. Resources include printable pages and sample responses for reference for most activities.

## Bridges Intervention (30 minutes/day)

Organized by content, Bridges Intervention volumes are designed for explicit, small-group instruction and address critical numeracy and computation skills. Each session includes a warmup, an activity, and a guided practice page with progress monitoring conducted every fifth session. Activities might also be selected as needed to support students who require work with particular skills or concepts.

Work Places (20-30 minutes/day)
Work Place activities engage students in differentiated practice with key skills. They can be introduced in whole- or small-group settings and used at work stations. To focus on specific standards, refer to the Grade 4 CCSS Correlations. Use support and challenge suggestions from the Work Place Guide and assign game variations from the Work Place Instructions to individualize instruction. Work Place materials (with student materials in English and Spanish) are available on the Curriculum tab of the Bridges Educator Site.

Bridges in Mathematics Unit 8 ( 60 minutes/day) In Grade 4, Unit 8 is a STEM-based unit that may be used for a thematic approach to in-person summer learning. The unit contains 20 one-hour sessions that may be offered as an extension program that focuses on grade-level content and combined with targeted small-group work for students requiring additional support. Note that materials may need to be gathered and borrowed from a classroom kit to teach this unit.

## Grade 4 Summer Learning Resources

| Math at Home | Bridges Intervention | Work Places CCSS Correlations |
| :---: | :---: | :---: |
| Generalizing Place Value Understanding (4.NBT.A) |  |  |
| Math in Our World <br> - Walk-A-Thon (addition, place value) <br> Same \& Different <br> - World Records (place value) <br> Today's Number <br> - 275 (addition) <br> What Comes Next? <br> - Number Forms (place value) <br> Which One Doesn't Belong? <br> - Missing Numbers (addition, subtraction) <br> - Hidden Values (addition, subtraction) <br> Would You Rather? <br> - Adding 3-Digit Numbers (addition) | Volume 3 <br> Base Ten Operations: Addition \& Subtraction with Multi-Digit Numbers, Modules 9-12 <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs | Grade 3 <br> 3B Round \& Add Tens <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 3D Round \& Add Hundreds <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> Grade 4 <br> 4A Target One Thousand <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Line App <br> 4B Add, Round \& Compare <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Line App <br> 4C Roll \& Subtract One Thousand <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Line App <br> - Number Pieces App <br> 4D Target Five <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Line App <br> - Number Pieces App |

## Bridges ${ }^{\circledR}$ in Mathematics Grade 4 Summer Guidance

| Math at Home | Bridges Intervention | Work Places CCSS Correlations |
| :---: | :---: | :---: |
| Using the Four Operations (4.OA.A, 4.NBT.B ) with a multiplication and division focus) |  |  |
| Guess My Rule <br> - Multiplication (multiplication) <br> - Number Pairs (multiplication) <br> Math in Our World <br> - Character Cards (multiplication, division) <br> - Hermit Crab Tank (multiplication) <br> - Making Bracelets (multiplication) <br> - Street Art (multiplication) <br> Same \& Different <br> - 4 \& 8 (multiplication, division) <br> - Crayon Cohorts (multiplication, division) <br> - Red Polygons (multiplication) <br> - Using Arrays to Multiply (multiplication) <br> Today's Number <br> - 48 (multiplication, division) <br> - $\underline{99}$ (multiplication, division) <br> - 320 (multiplication, division) <br> What Comes Next? <br> - Cups \& Tablespoons (multiplication) <br> - Extra Eggs (multiplication) <br> Which One Doesn't Belong? <br> - Colorful Calculations (multiplication) <br> - Numbers (multiplication, division) <br> - Rectangle Relationships (multiplication, division) <br> - Triangles (multiplication) <br> Would You Rather? <br> - Cha-Ching (multiplication, division) <br> - Money Choices (multiplication <br> - Marker Mates (multiplication)) <br> - Shopping Carts (multiplication) | Volume 5 <br> Basic Multiplication \& Division, Modules 4-12 <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs <br> Volume 6 <br> Multiplication \& Division of Multi-Digit Numbers, Modules 2-7 <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs <br> Volume 7 <br> Multiplication \& Division Word <br> Problems, Modules 1-8 <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs | 1A Cover Up <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 1B Arrays to One Hundred <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 1C The Multiple Wheel <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 1D Spinning Around Multiplication <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 1E Products Four in a Row <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 1F Dragon's Gold <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Line App <br> 2A What's Missing? Bingo <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Frames App <br> 2B Division Capture <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> - Number Frames App |

## Bridges ${ }^{\circledR}$ in Mathematics Grade 4 Summer Guidance

| Math at Home | Bridges Intervention | Work Places CCSS Correlations |
| :---: | :---: | :---: |
| Using the Four Operations (4.OA.A, 4.NBT.B )with a multiplication and division focus) continued |  |  |
|  |  | 2D Remainders Win <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 2E More or Less Multiplication <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 6D Lowest Remainder Wins <br> - Guides \& Instructions <br> - Record Sheets \& Game Boards <br> - Student Work Place <br> - Sentence Frames |
| Understanding Fraction Equivalence \& Ordering (4.NF.A) |  |  |
| Family Games <br> - Color 10 Fraction Game <br> Online Games <br> - Fraction Fling <br> Same \& Different <br> - Action Fractions <br> What Comes Next? <br> - Changing Numbers <br> - Fraction Sets | Volume 8 <br> Adding, Subtracting \& Making <br> Sense of Fractions <br>  <br> Ordering <br> Modules 7-10: Building from Unit Fractions <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs | Grade 3 <br> 7B Racing Fractions <br> - Guides \& Instructions <br> - Record Sheets \& Game Boards <br> - Student Work Place <br> - Sentence Frames <br> Grade 4 <br> 3A Dozens of Eggs <br> - Guides \& Instructions <br> - Record Sheets \& Game Boards <br> - Student Work Place <br> - Sentence Frames <br> 3B Racing Fractions <br> - Guides \& Instructions <br> - Record Sheets <br> - Game Board <br> - Student Work Place <br> - Sentence Frames <br> Note: The Fraction App is a helpful tool for modeling equivalence and ordering. |

## Bridges ${ }^{\circledR}$ in Mathematics Grade 4 Summer Guidance

| Math at Home | Bridges Intervention | Work Places CCSS Correlations |
| :---: | :---: | :---: |
| Building from Unit Fractions (4.NF.B) |  |  |
| Math in Our World <br> - Breakfast Plans <br> - Making Kites <br> Math Mobiles <br> - Balancing Act <br> - Balancing Fractions <br> - Missing Values <br> Online Games <br> - Feed Me Fractions (Adding) <br> What Comes Next? <br> - Ruler Rectangles <br> Which One Doesn't Belong? <br> - Adding Fractions <br> - Egg Fraction Action | Volume 8 <br> Adding, Subtracting \& Making <br> Sense of Fractions <br> Modules 3-5: Equivalence \& Ordering <br> Modules 7-10: Building from Unit Fractions <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs | Grade 3 <br> 7B Racing Fractions <br> - Guides \& Instructions <br> - Record Sheets \& Game Boards <br> - Student Work Place <br> - Sentence Frames <br> Grade 4 <br> 3B Racing Fractions <br> - Guides \& Instructions <br> - Record Sheets <br> - Game Board <br> - Student Work Place <br> - Sentence Frames <br> 6C Fraction Spin \& Add <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames |
| Understanding Decimal Notation \& Comparing Decimal Fractions (4.NF.C) |  |  |
| Family Games <br> - Decimal 4 Sums to Win <br> Same \& Different <br> - Comparing Grids <br> Today's Number <br> - 0.4 <br> - 0.26 <br> What Comes Next? <br> - Decimal Fractions <br> Which One Doesn't Belong? <br> - Tenths \& Hundredths <br> - Comparing Values | Volume 9 <br> Money \& Decimals, Modules 5-6 <br> - CCSS Correlations <br> - Tech Resources <br> - Writable PDFs | 3C Decimal Four Spins to Win <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames <br> 3E Fractions \& Decimals <br> - Guides \& Instructions <br> - Record Sheets <br> - Student Work Place <br> - Sentence Frames |

## Bridges ${ }^{\circledR}$ in Mathematics Grade 4 Summer Guidance

## Unit 8: Introducing Playground Design

In this unit, students design and build scaled model playgrounds that incorporate simple machines. They investigate simple machines in playground equipment and conduct research to help them make decisions about safety issues. They then survey the school community to find the most important playground items to use in their designs and use graphs to visualize the data they collect. Students use the information to create a scaled map of their designs, from which they build a scaled 3-D model. They also discuss the needs of plants and plant a model grass field in preparation for finding the scaled measurements and cost for planting a much larger field. They work with mass, liquid volume, area, and perimeter during this portion of the unit. A playground model showcase gives students an opportunity to prepare their work for sharing with friends and family.

Throughout the unit, students apply important skills and concepts from their grade-level work, including the following areas of focus:

- 4.MD.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit
- 4.MD.B Represent and interpret data
- 4.G.A Draw and identify lines and angles, and classify shapes by properties of their lines and angles

