



Grade 5 Quick Start Guide

This guide will help you unpack and organize your materials, access additional resources, and prepare to teach Bridges.

What's in the boxes

The Bridges classroom kit comes packed in four boxes — Box 1 and 2 for Bridges, and Box 1 and 2 for Number Corner. Each box includes a package contents sheet you can use to check off items as you unpack.

What you'll need

There are many ways to organize your materials. Begin with the recommendations here, and refine your system throughout the school year to better meet the unique circumstances of your classroom.

You'll want to have the following materials on hand:

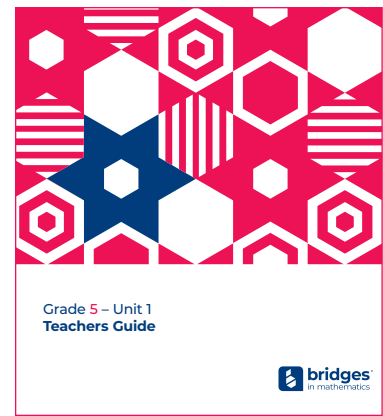
- Drawer or storage for Bridges and Number Corner card decks and display items
- Box or file for Number Corner calendar markers and titles
- Six trays or drawers that will hold $8\frac{1}{2}'' \times 11''$ Work Place record sheets, each 2 to 3 inches deep
- Container to hold small bags or containers of dice, game markers, measuring tapes, and spinner overlays
- Eight containers, one each for base ten pieces, Omnifix cubes, pattern blocks, geoboards, colored tiles, money value pieces, geoblocks, and calculators (half-class set)*
- Quart-size and smaller ziptop bags for card decks and small manipulatives

** Required but not included in kit (RNI). A complete list of classroom materials is available at the Bridges Educator Site.*

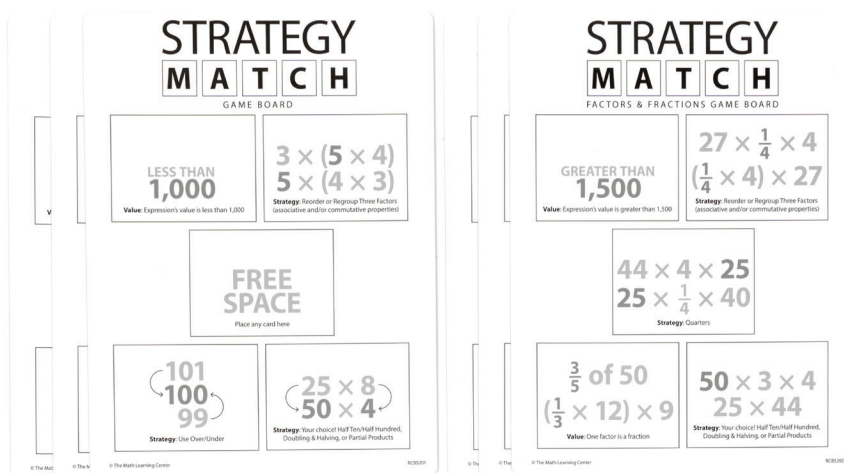
Box 1 Bridges printed materials

Teachers Guides

The Bridges Teachers Guides are divided into eight units of instruction, each of which contains twenty sessions of lesson plans with copies of print originals, student book pages, and Home Connections (homework assignments). Tabbed dividers are included for each unit.



Calculators and printed Bridges components



Store the two types of **Strategy Match game boards** with your Teachers Guides or in a file.

Keep the **card decks** with the game boards or with other game materials. You'll add more card decks to these when you unpack your Number Corner boxes.

Students will use these items during Work Places and other games.



Store the Order of Operations calculators with your instructional materials. (Calculator color and manufacturer may vary.)

Kit materials may differ from those shown.

Box 2 Bridges manipulatives

Box 2 of your kit contains the math manipulatives and game items needed only in Bridges activities and lessons.

- Store the **Omnifix cubes**, **money value pieces**, **base ten pieces**, **pattern blocks**, **colored tiles**, **geoblocks**, and **geoboards** in containers. You'll add more Omnifix cubes and money value pieces when you unpack your Number Corner materials.
- Store the **measuring cups** with your classroom supplies.
- Store the **protractors** and **measuring tapes** in a basket or small box.
- Store the **game markers** and **spinner overlays** in a small container. You'll add more spinner overlays and dice to this container when you unpack your Number Corner materials.
- Store the **thermometers**, **motors** and **solar mini-panels** for use much later in the year, during Unit 8.



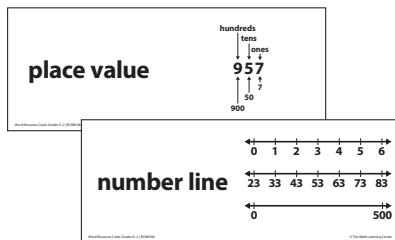
Kit materials may differ from those shown.

- | | | |
|-----------------------------------|--|---------------------------------------|
| 1 Omnifix cubes | 7 Colored tiles (included in Number Corner kit) | 12 Rectangular prism geoblocks |
| 2 Measuring cups (1-quart) | 8 Solar mini-panels | 13 Pattern blocks |
| 3 Geoboards and geobands | 9 Base ten number and linear pieces | 14 Game markers |
| 4 Measuring tapes | 10 Spinner overlays | 15 Motors |
| 5 Money value pieces | 11 Measuring cups (1-cup) | 16 Thermometers |
| 6 Protractors | | |

Box 1 Number Corner printed materials

Teachers Guides

The Number Corner Teachers Guides are divided into three volumes, each of which contains three months of instruction with copies of print originals and student book pages. Tabbed dividers are included for each volume.



Word Resource Cards

You'll use these cards to enhance your students' math vocabulary development in context throughout the year. Use the alphabetical tabs to sort the cards, and store the box of cards in your bookcase or cabinet.

Printed Number Corner Components

You'll need access to these materials throughout the year. Store them where you can easily retrieve them when needed.



Kit materials may differ from those shown.

1 Calendar titles

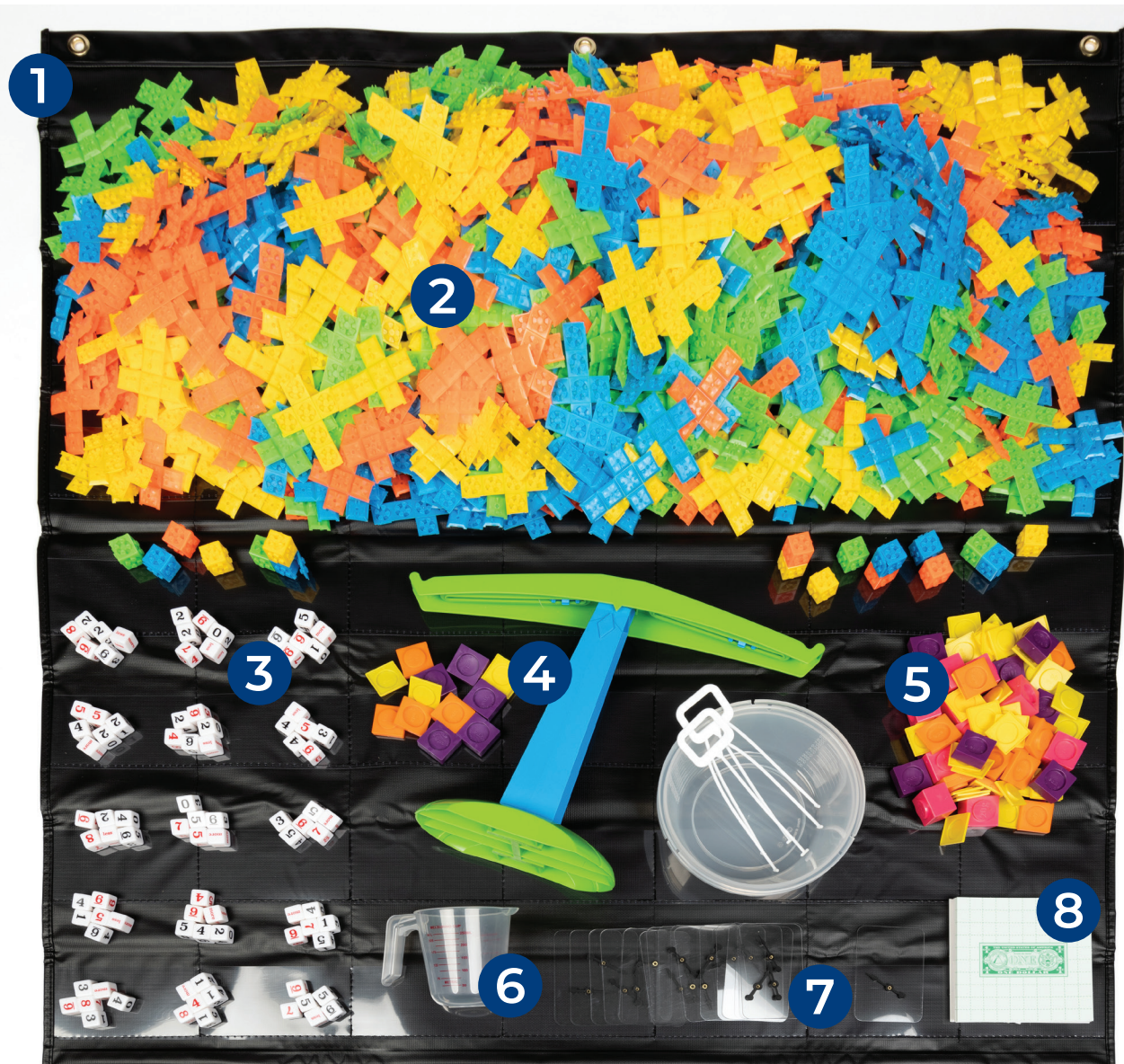
2 Card decks

3 Calendar markers

Box 2 Number Corner manipulatives

Number Corner Box 2 contains math manipulatives and pocket charts.

- Keep the **pan balance** and **mass weights** on a shelf or in a cupboard.
- Post the **Calendar Grid pocket chart** in your Number Corner display area.
- Store the **Omnifix cubes** and **money value pieces** with those from your Bridges kit.
- Add the **measuring cup** and **spinner overlays** to those from your Bridges kit.
- Store the **dice** with the spinner overlays and game markers.



Kit materials may differ from those shown.

- | | | |
|-------------------------------------|----------------------------------|------------------------------------|
| 1 Calendar Grid pocket chart | 4 Pan balance | 7 Spinner overlays |
| 2 Omnifix cubes | 5 Additional mass weights | 8 Money value pieces |
| 3 Dice | 6 Measuring cup | 9 Colored tiles (not shown) |

Preparing to teach

Take some time to assemble your Teachers Guide. Place each unit in the appropriate three-ring binder, and insert the tabbed dividers in the appropriate locations. Keep **Bridges Unit 1** and **Number Corner Volume 1** handy for the beginning of the school year. Store the other binders in your bookcase or cabinet.

Set aside some time to read the **Program Introductions**. These grade-level overviews, located at the beginning of Bridges Unit 1 and Number Corner Volume 1, introduce the components and structure of each program.

Preview Bridges Unit 1

Unit 1

Expressions, Equations & Volume

Overview

In Unit 1, students use volume measurement to arrive at and extend a broad conceptual understanding of multiplication. In Module 1, students investigate different ways to arrange 24 cubes into a rectangular prism, preparing a deep look at the associative and commutative properties of multiplication. In Module 2, students develop their understanding of volume concepts as they construct multiple rectangular prisms, including composite rectangular prisms, to represent one volume. Students then develop multiple multiplication strategies to solve real-world and mathematical problems in Module 3. Finally, students explore dividing 2-digit numbers by 2-digit numbers in the final module as they reveal the relationship between multiplication and division.

Module	Sessions	PA	NS	MF	WP	A	HC
Module 1 Multiplication & Volume	Session 1 Building a Community	•	•				
	Session 2 How About Products Four in a Row?	•		•	•		
	Session 3 Unit 1 Showcase	•					
	Session 4 Meet BRADco	•					
Module 2 Factors, Multiples & Patterns	Session 5 Another BRADco Project	•					
	Session 1 BRADco Project No. 2, Continued	•					
Module 3 The Associative & Commutative Properties	Session 2 BRADco Math Forces	•					
	Session 3 Team for Factors: Introducing Work Place 1A	•					
Module 4 From Multiplication to Division	Session 4 The Associative & Commutative Properties	•					
	Session 1 BRADco World	•					
Module 5 Multiplication Strategies	Session 2 Multiplication & Volume Connection	•					
	Session 3 Using Multiplication Strategies	•					
Module 6 From Multiplication to Division	Session 4 Strategic Match: Introducing Work Place 1B	•					
	Session 5 Mixing Factors & Division	•					
Module 7 Reversing Multiplication with Area Models	Session 1 Reversing Multiplication with the Area Model	•					
	Session 2 Reversing Division with the Area Model	•					
Module 8 Reversing Division with the Area Model	Session 3 Division with Remainders	•					
	Session 4 Modeling Division Problems	•					
Module 9 Quotients We Remember	Session 1 Unit 1 Assessment	•					
	Session 2 Unit 1 Assessment	•					

PA - Problems & Investigations, NS - Number Sense, MF - Math Forces, WP - Work Places, A - Assessment, HC - Home Connection

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Unit 1
Module 1

Module 1 Multiplication & Volume

Overview

Module 1 sets the tone for the year and establishes what a math community looks and sounds like. After playing Work Place 1A Products Four in a Row several times, students discuss strategies and use the game board to make mathematical observations and generate math stories. They will encounter during the course of the year. In Session 1, students take the Unit 1 Showcase and complete multiplicative, reflective writing that gives a glimpse into their understanding and beliefs about mathematics. The first investigation of the year begins in Session 2 and continues into Module 2. Students explore volume, area, and properties of multiplication while working on projects from the company BRADco.

Sessions	PA	NS	MF	WP	A	HC
Session 1 Building a Community	•					
Session 2 How About Products Four in a Row?	•					
Session 3 Unit 1 Showcase	•					
Session 4 Meet BRADco	•					
Session 5 Another BRADco Project	•					

PA - Problems & Investigations, NS - Number Sense, MF - Math Forces, WP - Work Places, A - Assessment, HC - Home Connection

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Unit 1
Module 1
Session 1

Session 1 Building a Community

Summary

In this session, students discuss what a mathematical community looks and sounds like, using the think-pair-share routine for the first time this year. The teacher records responses on a chart and emphasizes the need for a respectful, focused environment in which all students feel comfortable and are able to learn. Then students are introduced to their first Work Place, Products Four in a Row.

Module Learning Goals

Students learn about the relationship between multiplication and volume.

- Students investigate about factors and products as they play a multiplication game.
- Students reflect on their math preferences and experiences.
- Students construct and analyze rectangular prisms and composite rectangular prisms.
- Students explore expressions for volume by analyzing and decomposing constructed prisms.

Materials

Problems & Investigations Building a Community

Classroom Materials

- Chart paper
- Markers

Problems & Investigations Introducing Work Place 1A Products Four in a Row

CPA & Display POP P1 Work Place Guide 1A Products Four in a Row
POP P2 1A Products Four in a Row record sheet
SB 1 Work Place Instructions 1A Products Four in a Row

Kit Materials game materials in a single color (2)

Daily Practice

CPA & Display SB 2 You Choose

Preparation

- Prepare student books for use by writing students' names and then.
- Draw a T-chart on chart paper. Label one column Look Like and the other column Sound Like.
- In today's session, you'll introduce Work Place 1A Products Four in a Row. Before this session, review the Work Place Guide and instructions. Make copies of 1A Products Four in a Row record sheet; you'll need a single copy for use today, 1 copy per student pair for use in Session 2, and a class set plus extra to use in the Think Place 1A Products Four in a Row tray, along with the materials listed on the Guide. The Guide also includes suggestions for differentiating the game to meet students' needs.
- This session introduces a think-pair-share routine that will be used throughout the year. Review this session ahead of time, as the details provided in this session about the think-pair-share routine will help you successfully introduce it and will not be included in future sessions. As you teach this session, try to maintain a break page through the routine introduction.

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Read the **Bridges Unit 1 Introduction**, which describes the mathematical content of the unit—models, concepts, and strategies students will work with throughout the unit. Each unit's introduction also includes a list of Work Places introduced in the unit, assessment information, and teaching tips.

Next, check out the **Unit 1, Module 1 overview**. Each module's overview includes charts and lists you can use to prepare materials ahead of time.

Look over the **first few lessons of Module 1**. Take note of the Work Place you'll introduce during Session 2. While you'll introduce three more Work Places over the course of the unit, this one provides an early opportunity to introduce and establish Work Place routines.

Preview September Number Corner

September Daily Planner

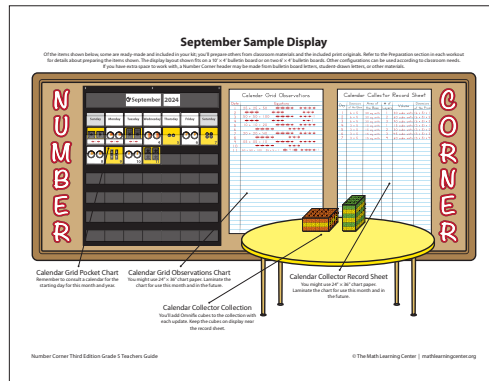
Day	Page	Date	Activities	Updates
Day 1	21		Number Strings: Number String 1	
Day 2	23		Computational Fluency: Introducing Claim the Factors	
Day 3	31		Calendar Grid: Introducing the Calendar Grid	
Day 4	37		Calendar Collector: Introducing the Calendar Collector	CG
Day 5	41		Solving Problems: Introducing Solving Problems	CG, CE
Day 6	43		Calendar Grid: Equations & Equivalences, Part 1	CG
Day 7	45		Number Strings: Number String 2	CG, CE
Day 8	47		Computational Fluency: Partner Claim the Factors, Part 1	CG, CE
Day 9	49		Calendar Collector: Revisiting the Collection	CG
Day 10	51		Solving Problems: Discussing Book Wrapping	CG, CE
Day 11	57		Number Strings: Number String 3	CG, CE
Day 12	61		Computational Fluency: Partner Claim the Factors, Part 2	CG, CE
Day 13	63		Calendar Grid: Equations & Equivalences, Part 2	CG
Day 14	65		Calendar Collector: What's Missing?	CG
Day 15	67		Computational Fluency: Factors & Multiples	CG, CE
Day 16	69		Solving Problems: Missing Number Problems	CG, CE
Day 17	71		Number Strings: Number String 4	CG, CE
Day 18	73		Calendar Grid: Discussion: Products & Patterns	CG
Day 19	75		Solving Problems: Missing Number Problems	CG
Day 20	79		Solving Problems: Discussing Tuff Top Strucks	CG

Updates

On days when Calendar Grid and Calendar Collector are not a featured content, student helpers will update them. Summaries of the updates appear below for the digital interactive sections only.

Calendar Grid The student helper turns one or more calendar markers so that the Calendar Grid is complete up to the current date. They update the information on the Calendar Grid Observations chart.

Calendar Collector The student helper constructs a new layer for the rectangular grid already formed, then fills in the information on the Calendar Collector record sheet.



September | Worksheets

Number Corner September Workouts

Overview

September's workouts focus on addition and subtraction of whole numbers, decimals and fractions, multiply and factors and volume. Over the course of the month, students review, revisit, and extend fourth grade skills and concepts as they begin to move into fifth grade content.

Pages & Display

- Use the Bridges Educator Site to review the Interactive Display Materials for this month of Number Corner. Decide whether you will use digital materials for display or copies of print originals and student book pages. Make copies as needed.
- If students do not have Number Corner Student Books, use a class set of pages 1–8.
- Additional resources, including printable sets of key questions for each September workout, are available on the Bridges Educator Site.

Teaching Tips

- Plan to spend more time on the Number Corner workouts this month. Establish procedures that ensure Number Corner runs smoothly all year, such as:
 - Moving quietly between tables and the Number Corner discussion area
 - Picking up and putting away materials
 - Responding to one another's thinking respectfully
 - Thinking aloud effectively
- Don't worry too much if students are not getting all the math in this month's workouts, or if it seems too easy.
- Try to have all students participate as much as possible during Number Corner.
- Do encourage students to ask questions, summarize one another's ideas, and make connections to the conversation.
- Do ask them to explain their thinking and to share their strategies.
- Don't explain for them or do them.
- Don't identify student mistakes right away—let them or their classmates catch them.

Check out the **September Daily Planner** and **Sample Display**. These introductory materials with each month of Number Corner will help you prepare your schedule and materials ahead of time.

Next, read the **Workouts** section for information about the math content in this month's activities, an overview of each of the five workouts for the month, and more details about materials preparation.

Preview the Assessment Guide

Bridges Unit 1 Assessments
Expressions, Equations, & Volume

Overview

In Unit 1, students use volume measurement to review and extend concepts and skills related to multiplication. In Module 1, students investigate different ways to collect data to determine a rectangular prism, prompting a deep look at the associative and commutative properties of multiplication. In Module 2, students develop their understanding of volume concepts as they construct multiple rectangular prisms, including composite rectangular prisms, to represent one volume. Students then develop multiple multiplication strategies to solve authentic mathematical problems in Module 3. Finally, students explore dividing 3-digit numbers by 2-digit numbers in Module 4 to help connect the relationship between multiplication and division.

There are four written assessments in Unit 1: a Unit Screener in Module 1, a work sample in Module 2, the Multiplication & Volume Checkpoint in Module 3, and a Unit Assessment at the end of Module 4. In addition to these, the Work Places included over the course of the unit offer teachers frequent opportunities to observe students' skills in authentic settings.

Skills & Concepts Assessed in Unit 1

Skills & Concepts	Informal Assessments	Formal Assessments
3.NF.A.1 Identify a unit for a given shape and use the unit to measure length.	MF 1A MF 1B Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.2 Measure length using a unit.	MF 1C MF 1D Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.3 Measure length using a unit.	MF 1E MF 1F Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.4 Measure length using a unit.	MF 1G MF 1H Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.5 Measure length using a unit.	MF 1I MF 1J Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.6 Measure length using a unit.	MF 1K MF 1L Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.7 Measure length using a unit.	MF 1M MF 1N Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.8 Measure length using a unit.	MF 1O MF 1P Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.9 Measure length using a unit.	MF 1Q MF 1R Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.10 Measure length using a unit.	MF 1S MF 1T Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.11 Measure length using a unit.	MF 1U MF 1V Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.12 Measure length using a unit.	MF 1W MF 1X Products from a Box	MA 1A Unit 1 Assessment
3.NF.A.13 Measure length using a unit.	MF 1Y MF 1Z Products from a Box	MA 1A Unit 1 Assessment

Bridges Unit Assessments | Unit 1

Grade 5 Unit 1 Screener Implementation Guide page 1 of 2

1. Use an array to multiply (area). (CCSS 4.NBT.5)

Use the array to solve a 2-digit by 2-digit multiplication problem. Draw loops around groups of tens and ones. Write equations to show your thinking. **CC math.5.1.1**

Current Expectation	Connection to Unit	Activities for Engagement
Find the product of a 2-digit number multiplied by a 2-digit number using place value and the properties of operations.	The ability to use the array model to represent and solve a 2-digit by 2-digit multiplication problem requires and indicates a solid understanding of the distributive property. This skill was introduced in grade 3 and was a central feature of the unit in grade 4.	Work Places from Grade 4 - WP 1A Area to 100 - WP 1B Area to 100
ACE Answering questions accurately	4 - Introduced in Unit 2. Developed through the year, and targeted for proficiency in Unit 4. Students will understand the area and engage with math of the content of Unit 1.	Bridges Intervention Volumes - Volume 5, Module 1, Session 11 - Volume 5, Module 1, Session 24 - Volume 6, Module 2, Session 9

2. Find partial products in an array to solve a 2-digit by 2-digit equation. (CCSS 4.NBT.5)

Fill in the blanks on the array, then determine the total product and complete the equation beside the array. **10. 40. 20. 14. 15 = 210**

Current Expectation	Connection to Unit	Activities for Engagement
Find the product of a 2-digit number multiplied by a 2-digit number using partial products and an array.	The ability to use an area array to represent and solve a 2-digit by 2-digit multiplication problem requires and indicates a solid understanding of four partial products. This skill was a central feature of the instruction in grade 4.	Work Places from Grade 4 - WP 1A Area to 100 - WP 1B Area to 100
ACE Using the array accurately	4 - Introduced in Unit 2. Developed through the year, and targeted for proficiency in Unit 4. Students will understand the area and engage with math of the content of Unit 1.	Bridges Intervention Volumes - Module 5, Sessions 22–24 - Module 5, Sessions 22–24

Unit 1, Module 1 | Session 3 class set, plus 1 copy for display

Unit 1 Screener page 1 of 2

1 Use the array to solve the multiplication problem. Draw loops around groups of lines and groups of dots. Write equations to show your thinking.

2 Fill in the blanks on the array, then determine the total product. Complete the equation beside the array.

(continued on next page)

Visit the Bridges Educator Site at teach.mathlearningcenter.org and navigate to your curriculum materials. Find the **Assessment Guide**, and read the introduction. Here you'll find information about observational, formative, and summative assessment in Bridges.

Next, take a look at the **Bridges Unit 1 Assessments** section of the guide. Here you'll find summary and scoring information for the assessment opportunities included in Unit 1, as well as answer keys and print originals for each assessment.

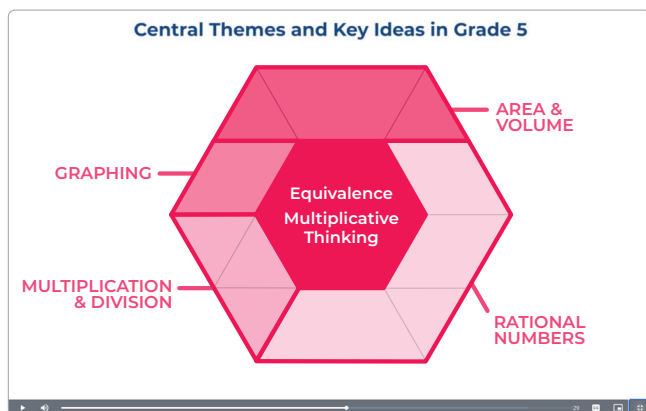
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The Bridges Educator Site is your source for interactive display materials, Work Place games students can play on tablets and computers, printable files, implementation and preparation guidance, the Bridges Assessment Guide, and more.

Access to the Bridges Educator Site is included with the purchase of a Bridges or Number Corner kit. Your school or district account administrator can provide you with registration information.

For more assistance getting started with Bridges or the Bridges Educator Site, contact plsupport@mathlearningcenter.org.