

Bridges in Mathematics Grade 1

Implementation Guides

About These Guides

The Bridges in Mathematics Implementation Guides provide the support and structure teachers need to help one another as they prepare to teach each Bridges unit and Number Corner month.

These guides are designed to help a facilitator or team leader organize and lead grade-level meetings in which teachers will read and prepare to teach upcoming material. Each guide includes:

- A list of materials teachers should bring
- A list of materials the facilitator or leader should bring
- Instructions and ideas for leading each part of the meeting
- Helpful tips for preparing and teaching the upcoming material

Guides for Unit 2 and Units 4–8 are designed to help implement a two-hour meeting (or two one-hour meetings).

The guide for Unit 3 contains information for two months of Number Corner and one unit of Bridges, so requires three hours total (spread across two or three meetings) to cover.

Note that the Unit 8 guide is designed with an emphasis on the Bridges unit rather than Number Corner, as the Unit 8 activities require extra preparation and materials.

Implementation of Unit 1 and September Number Corner are addressed in the Getting Started workshop. Recorded presentations are available on the Bridges Educator Site; visit the Getting Started section of the Implementation tab to find these and other resources.

Additional Resources



Additional resources for planning and implementation, such as blog posts, videos, and articles, are available in grade-level Implementation Resource collections on the [Math Coaches page](#) of the Bridges Educator Site. Opportunities to use these resources are highlighted throughout the Implementation Guides; look for the symbol at right.

In addition, the Resources section of the Bridges Educator Site offers games, activities, literature, and ideas for differentiation.

Planning Your Meeting

- Ideally, meetings should be held in a grade-level classroom so that the materials for that grade (such as calendar markers and manipulatives) are easily available. If you'll hold your meeting in a conference room, library, or other location, prepare to bring the needed materials to that location. You can find copies of curriculum and component masters on the Bridges Educator site (bridges.mathlearningcenter.org).
- Before each meeting, send a reminder to teachers about the time and place and the materials they will need to bring. Generally, teachers will need their Bridges and Number Corner Teachers Guide binders for the upcoming unit and month as well as sticky notes and pens or pencils. Access to computers or tablets is also required.
- Review the Materials and Preparation sections of the guide. Prepare copies or charts as needed.
- Prepare any giveaway items you choose to provide as described in the guide.

Questions?

For questions about using these guides or implementing Bridges and Number Corner, contact The Math Learning Center:
1 800 575-8130 • www.mathlearningcenter.org • mlcsupport@mathlearningcenter.org

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Grade 1 Implementation Guide

Number Corner October

Bridges Unit 2

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Bridges Teachers Guide, Unit 2• Number Corner Teachers Guide, Volume 1• tabbed dividers (if not yet added to binders)• computer or tablet• highlighters in blue, green, and yellow	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• October Daily Planner (1 per teacher; see Preparation)• October Calendar Markers (optional)• Unit 2 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)

Preparation

- Prepare an agenda using the bold headers in this guide. In one hour you can cover Number Corner October; in two hours (or in two 1-hour sessions) you can cover Bridges Unit 2 as well. Timing suggestions for each section are included in this guide.
- Print a Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Prepare materials for the Work Places introduced in Unit 2 according to the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies and charts for teachers as giveaways. Suggested items are listed in sidebars on page 4 and page 6.

Introduction & Agenda 5 minutes

- 1 Welcome everyone and display the agenda. Quickly get a sense of classrooms' progress in Bridges and Number Corner, as well as teachers' comfort with Bridges resources.
 - Who has made it to the end of Unit 1, Module 2?
 - Who has established a routine for all five Number Corner workouts in September? Who is using at least three of the workouts regularly?
 - Is everyone able to sign on to their Bridges Educator site account?
 - Who has sent the Unit 1 Family Overview home to families?
 - Who has used Digital Display Materials?

You might share one or both of these posts about the Digital Display Materials, or display some of the materials themselves as an example.

- » **Digital Display Materials Tutorial Video** bridges.mathlearningcenter.org/implementation/blog/digital-display-materials-tutorial-video
- » **Digital Display Materials Information** bridges.mathlearningcenter.org/implementation/blog/digital-display-materials

October Number Corner Preview 50 minutes

- 2 Have the teachers sign on to the Bridges Educator site. Then, share some Number Corner posts from the Bridges Blog while they follow along.

Help teachers with any account or sign-on issues as needed.

- **Number Corner Photos** *Photos of classroom displays for ideas and inspiration.* bridges.mathlearningcenter.org/implementation/blog/number-corner-display-ideas-photo-gallery
- **Color-Coding Your Number Corner Binder** bridges.mathlearningcenter.org/implementation/blog/color-coding-your-number-corner-binder
- **Beginning Your Year: Number Corner Lesson Planning** *Tips for effective use of the Daily Planner.* bridges.mathlearningcenter.org/implementation/blog/beginning-your-year-number-corner-lesson-planning

- 3 Ask teachers to turn to the October section of their Volume 1 binders.

- Remind them that each month begins with a Sample Display and Daily Planner. These provide a visual summary of the month's Number Corner workouts.
- Pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates, resolving any differences in the number of actual teaching days. Note that September and October have 20 planned teaching days, while November and December have only 15 because of conferences and holidays.
- Note on planners when decade days will occur. Students look forward to Tad's appearance in Number Line activities, and teachers can plan to capitalize on this enthusiasm.

- 4 Invite teachers to turn to the Introduction. The first page presents an overview and describes the activities for the month.

At the end of this month, students take the first of four quarterly Number Corner checkups. These checkups are designed to assess progress toward the standards named in the Skills/Concepts Assessed chart. These are the learning targets for these two months.

- 5 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.

- Assign a workout to each team. Give teams about 10 minutes to read and prepare to teach the others. Assist any team with a workout they find confusing.
- Have each team give an overview of their workout's activities for the month. Fill in any additional information you feel might be helpful from the following notes.

Calendar Grid Fall Number Stories & Equations

- The tenth month of the year provides the context for combinations that make 10. Students use ten-frames, construct mental images, and make up story problems to decompose and compose combinations that make 10. They also practice writing vertical and horizontal equations and show part-whole relationships with number trees (see Activity 2).
- Lay out the Calendar Markers or display them using the component masters on the Bridges Educator site for teachers to see and discuss. bridges.mathlearningcenter.org/view/nc1-comp#37
- Share this blog post about number trees: **The Number Tree Model** bridges.mathlearningcenter.org/implementation/blog/number-tree-model

Calendar Collector Pattern Block Shapes

- Students collect Pattern Block Shapes and create a picture graph to display the collection. They compare, order, estimate, and count the shapes while reviewing shape names and discussing their defining attributes. They'll also create a composite shape.
- Call attention to the Word Resource Cards teachers will need to display for this workout, particularly the cards showing the symbols for inequalities.

Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the Resources section of the Bridges Educator site.

Calendar Grid

Observations Chart

Make and laminate blank charts with column headers and title as shown in the Teachers Guide for October Calendar Grid.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Math Story Starter Cards (TM T1)

Cut apart and store each set of cards in an envelope, 1 set per teacher.

Four-Row Graphing Mat (TM T2)

Copy, cut, tape and laminate one mat (4 copies of the master) per teacher. The Large Ten-Frame Mat (TM T9) is also a good choice.

Pattern Block Paper Shapes (TM T3–T6)

Copy and cut a baggie of each shape per teacher. If you have a die-cutting machine, you can use it instead of the teacher masters to make pattern block-sized paper shapes.

Number Corner Checkup 1 (TM T10–T12)

1 class set per teacher

- With a little advance preparation, the frequency tables and collection graphs can be made to be reusable year after year. See this blog post for more information: bridges.mathlearningcenter.org/implementation/blog/number-corner-tips-now-later
- Use the Pattern Block Shape app as an extension: catalog.mathlearningcenter.org/apps/pattern-shapes

Days in School Making Ten

- It's important that each column of ten is marked in a different color (e.g. alternating red and blue), so the tens really nudge student thinking about groups.
- When writing equations for the number of the day in school, practice both vertical and horizontal equations. Be explicit about the place and the value of tens and ones.
- Be sure to write word form (number name) and expanded form for each day in school.

Computational Fluency Make Ten Facts

- Store Unifix cubes in trains of 10: 5 of one color and 5 of another. Keep the counting mats nearby. Materials organization helps with efficiency and pacing.
- Review the two types of Ten-Frame Display Cards: five-wise (blue dots) and pair-wise (red dots). Make sure teachers are clear on the difference. bridges.mathlearningcenter.org/view/nc1-comp#214
- Revisit questions that help develop number sense: *How many on top? How many on the bottom? How many in all?*
- When teachers screen a collection on the frame, they are encouraging students to create mental images (see Activity 2).
- The Ways to Make Ten Game and extension at the end of Activity 3 are popular activities.
- Use the Number Frames app for more extension: catalog.mathlearningcenter.org/apps/number-frames

Number Line The Twenties & Thirties

- Students love Guess My Number—they'll strive to find the number in the fewest possible clues. They'll get practice with inequality symbols, too.
- Counting forward and backward from any given number supports computational fluency and place value.

6 Discuss the coming assessment and Number Corner Student Book pages.

- Take a minute to examine the teacher masters for Number Corner Checkup 1 along with the "Introducing the Interview" lesson text (Teachers Guide, October, page 50). Discuss benefits of having the written assessment administered in small groups of 4–6 students rather than whole-class.
- Number Corner Student Book pages provide independent practice with the skills students developed as a group. This gradual release of responsibility is characteristic of many Number Corner activities. The pages often provide the critical final step of independent practice for students.

7 Spend any remaining time on Key Questions, Literature Connections, or differentiation suggestions for each activity.

- If you like, share this article for more ideas about using Key Questions: bridges.mathlearningcenter.org/implementation/blog/ask-great-question
- If teachers struggle with making 'perfectionist' Observations Charts for Calendar Grid, show them this post about making quick, easy, beautiful charts: bridges.mathlearningcenter.org/implementation/blog/number-corner-observation-charts

Tabbed Dividers

If teachers haven't had time to add the tabbed dividers to their Number Corner Volume 1 binders, consider giving them a few minutes to do so now.

Break or Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

Bridges Unit 2 Preview 35 minutes

Developing Strategies with Dice & Dominoes is the focus of the first 15 sessions of Unit 2. Students work with dot cards and the number rack to develop fluency with addition and subtraction strategies to 10. Counting On, Doubles, using 5 as a sub-base, and the commutative property are all big ideas. The meaning of the equal sign is also examined to help students solve for the unknown values in an equation.

- 8 Invite teachers to open their Bridges in Mathematics Unit 2 binder to the introduction for Unit 2 and quickly scan the Overview. Note key details:
 - The Domino Addition Checkpoint Assessment is scheduled during Module 2 to provide an opportunity to track student progress. The Unit 2 Assessment is scheduled at the end of Module 3.
 - The concepts in Modules 1–3 are tethered to the major clusters in the skills for grade 1; Module 4 extends these ideas, but the skills developed and introduced there are not essential for grade 1. If teachers are behind near the end of Module 3, they can plan to skip Module 4 and move on to Unit 3.
 - New Work Places are introduced in Module 1, Sessions 2 and 4; Module 2, Session 3; and Module 3, Sessions 2, 3, and 4.
 - Home Connections are sent home twice a week.
 - The dominoes included in the kits come in two variations, double-six and double-nine. Teachers can mark the back of each domino in a set with a paint marker, using different colors to identify sets for easy sorting.
 - Be sure students practice vertical and horizontal equations.
 - The addition strategy chart created in Module 1, Session 4 is important for nudging student thinking toward more efficient computing.
 - In Module 2, Session 2, the use of stickers or stamps is optional, but they are an extra fun way to make dot pattern cards!

- 9 Give teachers time to read the Unit 2 Introduction independently.
 - Invite teachers who finish early to spend the rest of this time skimming the first few sessions in Module 1.
 - Give teachers a few minutes to talk with their groups about what they’ve read.

- 10 Next, ask teachers to find and study the Skills Across the Grade Levels chart in the Unit 2 Introduction.
 - Ask: Which standards are introduced and developed in this unit? Are there any that must be mastered? [No]

Skills introduced and developed in this unit (noted with I and D in the chart) will be revisited in future Bridges units and months of Number Corner for further development or mastery. This means that at the end of the unit, some students will not be proficient in these areas. Discuss with teachers how this will inform their instruction.
 - Note the observational assessments and formal written assessments listed in the Assessments chart. Ask: Which standards are priorities?
 - Finally, take a moment to reflect on the Differentiation chart and answer any questions teachers may have about differentiation in Bridges and Number Corner.

- 11 Divide the group into four teams. Have each team read one module, then share what they’ve learned with the whole group.

Bridges Giveaways

Double-Flap Cards (Module 2 T1–T6)

Prepare as described on the masters—one set per teacher.

Unit 2 Assessment (Module 3 T13–T14)

Prepare class sets for each teacher and discuss the learning targets during the meeting.

Think-Pair-Share Posters

Available at mathlearningcenter.org/sites/default/files/documents/Resources/ThinkPairSharePosters.pdf

Resources from the Bridges Educator site

The beginning of a unit is a good time to review the Resources section of the site for additional games, activities, children’s literature and other teaching tools for differentiation and extension. Interactive whiteboard files are also included in this section.

If they have a class or school webpage or newsletter, teachers might opt to include a link to the “Support for families” page (www.mathlearningcenter.org/families), where these overviews are available to the public. The overviews are offered in English and Spanish.

Bridges Unit 2 Work Places 20 minutes

Make sure your prepared Work Places are available for the group to use during this activity.

- 12 Let teachers know that six new Work Places are introduced in Unit 2, and that they'll explore these in pairs today.
- Explain that three of the new Work Places use dominoes as a manipulative, while the others focus on Doubles and Counting On as strategies for addition and subtraction.
 - Teachers may remember Work Places 2A–2D from their Getting Started Workshops.
 - Let them know that they don't have to play a complete round or game of any of the Work Places—just enough to understand the general procedure of play.
 - When the group understands what to do, give them 15 minutes to pair up and play as many of the Work Places as they can.
- 13 Reconvene the group and use copies of each Work Place Guide to discuss strategies for differentiation, including suggestions for game variations, challenge, and support.

If time permits, share this “Perfecting Partner Games with Practice” post:

bridges.mathlearningcenter.org/implementation/blog/perfecting-partner-games-practice

Wrap-Up 5 minutes

- 14 If you have extra time, invite teachers to look over each module's Materials Preparation chart and come up with a plan for dividing the work.

You might also stay for a few minutes to talk with teachers who have concerns and questions that weren't addressed during the meeting, or to share the following resources.

Seven Ways to Increase Student Engagement in the Classroom

This article describes five levels of engagement and offers tips for increasing it.

<http://www.readinghorizons.com/blog/seven-ways-to-increase-student-engagement-in-the-classroom>

About Think-Pair-Share

Think-Pair-Share is an instructional strategy used frequently in Bridges and Number Corner. See this blog post for more information and tips for using the routine in the classroom: bridges.mathlearningcenter.org/implementation/blog/think-pair-share

- 15 Thank teachers for their participation and, if you will meet again, confirm the next meeting place, date, and time.

Consider asking teachers to write one thing they found useful about this meeting, as well as any additional questions or concerns they have, on an index card or slip of paper. Have them turn in cards as they leave, and use the cards to open discussion at your next meeting.

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the [Resources section](#) of the Bridges Educator site.

Tabbed Dividers

If teachers haven't had time to add the tabbed dividers to their Bridges Unit 2 binders, consider giving them a few minutes to do so now.

Grade 1 Implementation Guide

Number Corner November & December Bridges Unit 3

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Number Corner Teachers Guide, Volumes 1 and 2• Bridges Teachers Guide, Unit 3• Assessment Guide (digital or print)• computer or tablet• highlighters in blue, green, and yellow	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• November & December Daily Planners (1 per teacher; see Preparation)• November & December Calendar Markers (optional)• Unit 3 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)

Preparation

- Prepare an agenda using the bold headers in this guide.
 - In one hour you can cover Number Corner November; in two hours (or in two 1-hour sessions) you can cover Bridges Unit 3 as well.
 - You'll need an additional hour for December Number Corner; you can do this in the same meeting, or later in the month if you prefer.
 - Timing suggestions for each section are included in this guide.
- Print a Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Prepare materials for the Work Places introduced in Unit 3 according to the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies and charts for teachers as giveaways. Suggested items are listed in sidebars on page 10, page 12, and page 14.

Introduction & Agenda 5 minutes

- 1 Welcome everyone and display the agenda.
 - Assign a recorder and timekeeper if you'd like.
 - Get a quick sense of classrooms' progress in Bridges and Number Corner.
 - » Who is finishing up Unit 2?
 - » What family resources have they shared?
 - » Who has established a routine for all five Number Corner workouts?
 - » Who has used Digital Display Materials?

You might share one or both of these posts about the Digital Display Materials, or display some of the materials themselves as an example.

- » **Digital Display Materials Tutorial Video** bridges.mathlearningcenter.org/implementation/blog/digital-display-materials-tutorial-video
- » **Digital Display Materials Information** bridges.mathlearningcenter.org/implementation/blog/digital-display-materials

November Number Corner Preview 50 minutes

- 2 Ask teachers to turn to the November section of their Number Corner Volume 1 binders and give them a few minutes to look at the sample display and review the introduction. Then have them locate the Target Skills section on page 2. Compare these to the Critical Areas of Focus in the Assessment Guide Overview.



You can also use Achieve's Focus by Grade Level documents to help with this work. See the Implementation Resources collection for a link to the Achieve document for the grade.

Ask: Which workouts are a priority for grade 1 students? Have teachers use colored highlighters to identify the standards that are major (green), supporting (blue) and additional (yellow).

- Considering these priorities, which workouts should they be sure to address this month?

- 3 Schedule the month's Number Corner activities.

- Remind them that each month begins with a Sample Display and Daily Planner. These provide a visual summary of the month's Number Corner workouts.
- Pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates, resolving any differences in the number of actual teaching days.
- If your school calendar has more than 15 teaching days for November, here are some ideas to extend this month's activities:
 - » Play another round of the fraction game, Color Five. (Use your master of Number Corner Student Book page 10 to make more copies.)
 - » Have students complete the Today Is... Calendar Grid page in their Number Corner Student Books (page 11).
 - » Repeat any of the Computational Fluency activities.
 - » Play additional rounds of Guess My Number (Number Line Activity 2).

- 4 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.

- Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
- Give teams about 10 minutes to read their workout and prepare to teach the others. Assist any team with a workout they find confusing. Fill in any additional information you feel might be helpful from the following notes.

Calendar Grid Chomp! Gulp! Nibble! Fractions

- The markers this month feature animals eating whole, halves, and fourths of round and square snacks according to a predictable pattern. Students are encouraged to use vocabulary words (whole, half/halves, fourth/fourths) to describe what they see. They name and count fractional parts, as well as fold paper circles and squares into halves and fourths to learn about equal parts ("fair shares"). A fraction game, Color Five, reinforces how smaller fractional parts make a whole.
- Teachers will want to post the Word Resource Cards *circle, fourth, fraction, half, square, and whole* near the Calendar Grid.

November Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the Resources section of the Bridges Educator site.

Calendar Grid Observations Chart

Make and laminate blank charts with column headers and title as shown in the Calendar Grid workout.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Calendar Collector An Hour a Day

- Students collect an hour a day on both an analog clock and a linear timeline strip. They also discuss a.m. and p.m. and practice telling time to the hour on both analog and digital clocks. By coloring in half on an analog clock face, students make connections to the calendar markers and Word Resource Cards *whole* and *half*. An optional activity helps students understand the duration of an actual hour.
- Teachers use a large display clock (such as a Judy Clock) this month to show how the hour and minute hands work together on a clock. If teachers do not have one, they may want to try to borrow one for November and December. Here is a link to a free online clock that shows how the hands work together: www.visnos.com/demos/clock
- This blog post describes and shows pictures of the display materials for this month's Calendar Collector, which continue on into next month: bridges.mathlearningcenter.org/implementation/blog/number-corner-tips-now-later

Days in School Finding Fifty

- Counting the number of days in school on the hundreds grid continues this month as students find 10s, 5s, and 1s within the numbers and generate equations and number trees. This month likely contains the 50th day of school, and students discover that 50 is one-half of 100, color in 50 squares on a hundreds grid, and write matching equations.
- As the 50th day of school is reached, the hundreds grid encourages visualization of larger chunks of numbers like 25 and 50. Students discover and understand that 50 is one-half of 100 and 25 is one-half of 50 and one-fourth of 100, which promotes the concepts of doubling and halving.

Computational Fluency Doubles & Halves to Ten

- Addition Doubles facts to 10 and the related subtraction Half facts are introduced using the pair-wise ten frame display cards (red dots) and finger patterns. Students also tell stories and write equations and number trees to represent the addition and subtraction facts.
- Doubling serves as an anchor strategy for computational fluency. A combination like $7 + 8$ can be thought of as $7 + 7 + 1$. A subtraction half such as $8 - 4 = 4$ is the opposite of doubling, and if students know $4 + 4 = 8$, then they are able to know the inverse operation $8 - 4 = 4$.
- This blog post, Doubles Fact Practice with the Magic Wall, relates to November and December Number Corner, as well as to Unit Doubles and Doubles Plus or Minus One fact strategies: bridges.mathlearningcenter.org/implementation/blog/doubles-fact-practice-magic-wall

Number Line The Forties & Fifties

- This month centers on reinforcing numeral identification, place value, and number sequences between 31 and 60. Students play Guess My Number with a new range of numbers, practice counting by 10s, and celebrate another Decade Day. They return to October's Leap by Tens game and complete the Fifth Decade Day page in their student books.
- Activities 1 and 2 offer support suggestions for students having difficulty visualizing the numbers and number relationships.

- 5 Depending on the needs of the group, you might spend any remaining time on Key Questions, Literature Connections, or differentiation.

If teachers struggle with making 'perfectionist' Observations Charts for Calendar Grid, show them this post about making quick, easy, beautiful charts:

bridges.mathlearningcenter.org/implementation/blog/number-corner-observation-charts

Break or Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

Bridges Unit 3 Preview 35 minutes

Students work with number racks and Unifix cubes to develop fluency and confidence with addition and subtraction facts to 10 and to become more comfortable with number families to 20. Big ideas involve part-part-whole reasoning including Doubles, the relationship between odd and even numbers, Making Ten facts, the Ten and Some More strategy, and finding the difference in comparison problems.

6 Invite teachers to open their Bridges in Mathematics Unit 3 binder to the introduction for Unit 3 and quickly scan the Overview. Note key details:

- The Combinations of Ten Checkpoint is scheduled for Module 2, Session 4. The Unit 3 Assessment is scheduled at the end of Module 3. The Assessment Guide contains additional information about these and other assessment opportunities in the unit.
 - » Question 2 on the Unit 3 Assessment is a set of addition combinations that students are allowed to use their number racks to help solve. The directions in the Teachers Guide will also tell teachers to have students work for 3 minutes and mark where they ended even if all of the problems were not completed. This is intended to help teachers identify students who may still be counting by 1s.
- Although the Unit Assessment occurs at the end of Module 3, the sessions in Module 4 contain work related to the major ideas of the grade level. This module should not be skipped.
- New Work Places are introduced in Module 1, Sessions 1, 2, and 4; Module 2, Sessions 1 and 5; and Module 3, Session 4.
- Home Connections are sent home two times a week.

7 Consider working through some of the addition and subtraction strategies presented on page iii of the Unit 3 Introduction so teachers can familiarize themselves with these strategies and see how the strategies are related to each other and to the concepts of counting and place value.

8 Give teachers time to read the Unit 3 Introduction independently.

Invite teachers who finish early to skim the first few sessions in Module 1. Then, give teachers a few minutes to talk with their groups about what they've read.

9 Next, ask teachers to find and study the Skills Across the Grade Levels chart in the Unit 3 Introduction.

- Ask: Which standards are introduced and developed in this unit? Are there any that must be mastered? [No]
Skills taught for introduction and development (noted with I and D in the chart) are revisited in future Bridges units and months of Number Corner, when they are further developed or taught for mastery.
- Using the Assessment Guide, together review the updated Support & Intervention section for Unit 3 (bridges.mathlearningcenter.org/view/br1-ag#99). Discuss how this information will inform teachers' instruction.

10 Divide the group into four teams. Have each team read one module, then share what they've learned with the whole group.

11 If you have time, share this Bridges Educator site blog post about odd and even numbers and using the number rack to solve addition combinations.

bridges.mathlearningcenter.org/implementation/blog/odd-man-out-and-other-number-rack-stories

Bridges Giveaways

Unit 3 Family Overview

1 copy per teacher

Unit 3 Assessment

Module 3 T7–T8

1 class set per teacher

Comparing Cube Trains & Cube Towers Charts

Make and laminate blank charts with column headers and titles as shown in Unit 3, Module 4, Sessions 3 & 4.

Scope & Sequence

The Scope & Sequence documents available in the Curriculum section of the Bridges Educator site offer a “big picture” of skills development throughout the year.

Bridges Unit 3 Work Places 20 minutes

Make sure your prepared Work Places are available for the group to use during this activity.

- 12 Let teachers know that six new Work Places are introduced in Unit 3, and they'll explore these in pairs today.
 - Let teachers know that Work Place 3F, Fifty or Bust!, is introduced over the course of three sessions so students will have ample time to learn and play the game. When students are playing the game, they'll want to make sure they are using a new color for each turn.
 - Let them know that they don't have to play a complete round or game of any of the Work Places—just enough to understand the general procedure of play.
 - When the group understands what to do, give them 15 minutes to pair up and explore the Work Places.
- 13 Reconvene and use the Work Place Guides to discuss strategies for differentiation, including game variations, challenge and support. Encourage teachers to get to Work Place time on a regular basis.
- 14 If you have time, share some of these Bridges Educator site blog posts about Work Places:
 - Tools and Tips to Support Work Places, which has specific references to Unit 3: bridges.mathlearningcenter.org/implementation/blog/tools-tips-support-work-places
 - Opportunities to Challenge Learners: bridges.mathlearningcenter.org/implementation/blog/opportunities-challenge-learners

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the [Resources section](#) of the Bridges Educator site.

Break or Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

December Number Corner Preview 50 minutes

- 15 Ask teachers to turn to the December section of their Number Corner Volume 2 binders and give them a few minutes to look at the sample display and review the introduction. Then have them locate the Target Skills section on page 2. Compare these to the Critical Areas of Focus in the Assessment Guide Overview.



You can also use Achieve's Focus by Grade Level documents to help with this work. See the Implementation Resources collection for a link to the Achieve document for the grade.

Ask: Which workouts are a priority for grade 1 students? Have teachers use colored highlighters to identify the standards that are major (green), supporting (blue) and additional (yellow).

- Considering these priorities, which workouts should they be sure to address this month?

- 16 Schedule the month's Number Corner activities.

Pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates, making adjustments for the actual number of teaching days. Focus on the workouts that emphasize the priorities teachers have identified.

December can be a hectic month with full schedules and students eagerly awaiting winter vacation and holidays. Keep in mind that it's best to stick to the normal daily schedule as much as possible. Many of this month's Number Corner activities are a continuation from November. Minimal new skills and activities are introduced to limit preparation and planning.

- 17 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.

- Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
- Give teams about 10 minutes to read their workout and prepare to teach the others. Assist any team with a workout they find confusing.
- Have each team give an overview of their workout's activities for the month.
- Fill in any additional information you feel might be helpful from the following notes.

December Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the Resources section of the Bridges Educator site.

Calendar Grid Observations Chart & Calendar Collector Record Sheet

Make and laminate blank charts with column headers and title as shown in the Calendar Grid and Calendar Collector workouts.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Three-Dimensional Shape Labels (TM T1–T2)

Copy, cut, and laminate 4 shape posters per teacher as described in December Calendar Grid.

What Time is It? Cards (TM T3–T5)

Copy, cut, laminate, and attach yarn as described in December Calendar Collector.

Calendar Grid Three-Dimensional Shapes All Around Us

- The calendar markers this month show objects shaped like cylinders, spheres, cubes, and rectangular prisms. Students use defining attributes and correct terminology to describe the objects on the markers and objects found in their classroom environment.
- The last activity has student work in groups to create a shape sculpture.
- Be sure to point out the list of geometry terms in the Mathematical Background section to refer to as needed.
- Word Resource Cards for the solid shapes, as well as *edge*, *face*, and *vertex or corner*, help build students' background of these geometry terms.

Calendar Collector Time to the Hour

- The Calendar Collector continues from November, collecting 1 hour a day on the same clock display and linear timeline strip until 24 hours have been collected. Students discuss activities done at different hours and will hang pictures on the timeline strip to develop an understanding of before noon and afternoon. When the timeline strip reaches 24, it is divided in half to show two 12-hour timelines representing a.m. and p.m.

Days in School Moving Beyond Fifty

- This workout remains much the same as in previous months, and students continue to build their understanding of place value, see 50 as one-half of 100, and use 50 as a landmark number. An X is added to the hundreds grid and the number of days in school is written in numeral and word form, as well as in tens and ones. Students will generate equations and solve one equation with a missing addend.

Computational Fluency Doubles & Halves Within Twenty

- Working with Doubles greater than 10 is this month's focus. Students build Doubles using Unifix cubes and ten-frames, make finger patterns with partners, count by 2s, and decompose new doubles into known Doubles facts. For example, $8 + 8$ can be thought of as $5 + 5$ and $3 + 3$ to help make these larger numbers more accessible. The double-ten frame pair-wise cards help students visualize this concept and apply the associative property of addition.
- Students often struggle with Doubles facts once the doubles are greater than their finger range. The visual models in this workout, pair-wise ten-frames and pair-wise double ten-frames, not only help students see what happens when numbers are doubled and halved but help move them to more efficient strategies than counting on when it comes to these facts.
- Note the suggestions in Activities 2 and 4 for students who are ready for a challenge.

Number Line The Fifties and Sixties

- The number sequence 41–69 is the focus as students continue where they left off last month. They play two rounds of the popular game Guess My Number, first with numbers 41–59 then 51–69. Students continue to practice counting forward and backward by 1s and 10s. They add number line strips to the Classroom Number Line, play Leap by Tens, and celebrate another Decade Day.

- 18 Depending on the needs of the group, you might spend any remaining time on Key Questions, Literature Connections, or differentiation.

Wrap-Up 5 minutes

- 19 If you have extra time, invite teachers to look over each module's Materials Preparation chart and come up with a plan for dividing the work.

You might also stay for a few minutes to talk with teachers who have concerns and questions that weren't addressed during the meeting, or to share this post about challenge for high achievers:

bridges.mathlearningcenter.org/implementation/blog/tip-resources-high-achievers

Grade 1 Implementation Guide

Number Corner January

Bridges Unit 4

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Number Corner Teachers Guide, Volume 2• Bridges Teachers Guide, Unit 4• Assessment Guide (digital or print)• computer or tablet• highlighters in blue, green, and yellow	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• January Daily Planner (1 per teacher; see Preparation)• January Calendar Markers (optional)• Unit 4 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)

Preparation

- Prepare an agenda using the bold headers in this guide. In one hour you can cover Number Corner January; in two hours (or in two 1-hour sessions) you can cover Bridges Unit 4 as well. Timing suggestions for each section are included in this guide.
- Print a Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Prepare materials for the Work Places introduced in Unit 4 according to the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies and charts for teachers as giveaways. Suggested items are listed in sidebars in this guide.

Introduction & Agenda 5 minutes

1 Welcome everyone and display the agenda.

Get a quick sense of classrooms' progress in Bridges and Number Corner.

- Who is finishing up Unit 3?
- What family resources have they shared?
- Who has used Digital Display Materials?
- Who's made use of any of the free apps available from The Math Learning Center? (See catalog.mathlearningcenter.org/apps for a list and download links.)

January Number Corner Preview 50 minutes

- 2 Ask teachers to turn to the January section of their Number Corner Volume 2 binders and give them a few minutes to look at the sample display and review the introduction. Then have them locate the Target Skills section on page 2. Compare these to the Critical Areas of Focus in the Assessment Guide Overview.
 - Ask: Which workouts are a priority for grade 1 students? Have teachers use colored highlighters to identify the standards that are major (green), supporting (blue) and additional (yellow).
 - Considering these priorities, which workouts should they be sure to address this month?
- 3 Schedule the month's Number Corner activities.
 - Pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates, resolving any differences in the number of actual teaching days.
 - Remind teachers that January through March is core teaching time with fewer interruptions in the school calendar. Note that it is a good idea to review classroom routines following winter break.
- 4 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.
 - Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
 - Give teams about 10 minutes to read their workout and prepare to teach the others. Assist any team with a workout they find confusing. Fill in any additional information you feel might be helpful from the following notes.

Calendar Grid Equations with Unknowns

- January's markers feature an equation or story problem with a missing addend, minuend, or subtrahend. Students place the known numbers into a number tree to help them recognize the missing part. As the month unfolds, they discover patterns in the sequence as they discuss the equations, tell math stories, and use a variety of efficient and flexible strategies.
- This post concerns helping students make and write predictions: bridges.mathlearningcenter.org/implementation/blog/predicting-next-calendar-grid-marker
- Be sure to find and post the Word Resource Cards, difference, equal, equation, sum or total, near the Calendar Grid.

Calendar Collector Tens & Ones with Dimes & Pennies

- Students return to collecting coins, with the Pennies & Dimes Spinner determining the daily coins. They record the collection on a two-column horizontal bar graph. At the end of three weeks, they count the coins and find the total amount of money collected. During the fourth week, they compare and order the three collections and count the month's money total. Counting collections of like or unlike coins may not be first grade standards in your district/state, which will determine your emphasis on mastery.
- This post, When It's About Money, Students Listen!, discusses the benefits of using money to teach and reinforce math concepts: bridges.mathlearningcenter.org/implementation/blog/when-it's-about-money-students-listen

January Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the [Resources](#) section of the Bridges Educator site.

Calendar Grid Observations Chart & Calendar Collector Record Sheet

Make and laminate blank charts with column headers and title as shown in the Calendar Grid and Calendar Collector workouts.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Number Corner Checkout 2 (TM T4–T7)

1 class set per teacher

Graphing Mats (TM T1)

12 copies per teacher

Penny & Dime Poems (TM T2–T3)

Enlarge on 11" x 17" colored paper and trim if desired. Make 1 of each poem per teacher.

Small plastic boxes with clear lids (dice shakers)

Consider small plastic storage boxes with clear lids as a giveaway or as door prizes. If you decide to make them door prizes, add some fun to the meeting by choosing random winners. This site can help with a random drawing: www.classtools.net/random-name-picker

Days in School Close to One Hundred

- This month's workout emphasizes composing and decomposing 100 and seeing the hundreds grid as a whole. The teacher continues to challenge them with missing addend problems and guides them to find two parts of the hundreds grid, the number of days they have been in school, and the number of days until the 100th day.
- By January, most first graders are seeing the quantities colored in on the hundreds grid as collections of 10s and 1s, and their equations routinely reflect this understanding. This is a good point to begin the discussion before moving to equations that involve some chunking of numbers, such as different groupings of 10. Then end with equations that encourage new thinking, such as seeing 25s or subtracting from 100.
- Direct teachers to the post Tad's Tenth Decade Celebration for the 100th Day of School if they will reach the 100th Day of School during January: bridges.mathlearningcenter.org/implementation/blog/tad's-tenth-decade-celebration-100th-day-school

Computational Fluency Doubles Plus or Minus One Facts

- Students review Doubles facts and are introduced to Doubles Plus or Minus One facts. They use the doubles finger patterns and Ten-Frame Pair-Wise Cards to work from very familiar facts such as $4 + 4$ to closely related but less familiar facts such as $4 + 3$ and $4 + 5$.
- When students know that $4 + 4 = 8$, they can use this information to solve $4 + 5$ by counting on 1 more from the related double or to solve $4 + 3$ by counting back 1 from the related double. While some students invent derived fact strategies on their own, many benefit from explicit teaching and practice of such strategies to help move them away from counting (either by 1s or counting on) toward more efficient, flexible, and accurate ways of computing.

Number Line The Seventies & Eighties

- For the new calendar year, students meet Polli, Tad's little sister, and join her in skip-counting along the classroom number line by 5s. They also play a new game, Roll & Count, to practice forward and backward number sequences within the seventies and eighties number families. At the end of the month they celebrate the ninth Decade Day in great anticipation of the 100th day of school, now only one decade away.
- For an example of the January Number Line Pocket Chart, see the Preparation section on page 32 in the Teacher's Guide, Volume 2.

5 **Once everyone has shared, discuss Number Corner Checkup 2.**

- This checkup helps teachers ascertain students' current strategies for adding and subtracting within 20, solving story problems, and reading, writing, and comparing numbers to 120.
- During the last week of January, teachers conduct a short interview with each student individually as time allows over the next few weeks. The following day, teachers administer a 2-page written assessment to the entire class.
- See the Assessment Guide sections for Unit 4 and January Number Corner for Bridges Intervention volumes and modules recommended by concept or skill.

6 **Depending on the needs of the group, you might spend any remaining time on Key Questions, Literature Connections, or differentiation.****Break or Wrap-Up 5 minutes**

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

Strategy Posters

Encourage teachers to download and post addition strategy posters if they haven't already done so. The Math Learning Center offers sets of posters for each operation in English and Spanish. Find them in the [Resources Section](#) of the Bridges Educator site.

Assessment Tools

If your teachers use Excel (or software that can work with Excel files) for recording grades, remind them of the Excel scoring guides located in the Assessment Tools sidebar of the Implementation section of the Bridges Educator site.

Bridges Unit 4 Preview 40 minutes

Unit 4 revolves around the number line, an essential mathematical model. Closed and open number lines are used both as models of our number system, as well as models for beginning operations with addition and subtraction. Students locate numbers on a number line, use their reasoning skills and number sense to determine unknown values that correspond to empty boxes, and explore addition and subtraction. As the unit unfolds, the range of numbers represented grows from 0–20 to 0–120. Students become comfortable skip-jumping along open number lines in multiples of 5 and 10, forward and backward, from numbers that are both on and off the decade. In the concluding module, students measure penguins and then compare and order those measurements, write inequality statements, and find differences between the two numbers.

7 Invite teachers to open their Bridges in Mathematics Unit 4 binder to the introduction for Unit 4 and quickly scan the Overview. Note key details:

- The Numbers on a Line Checkpoint is scheduled during Module 2, Session 5 to provide an opportunity to assess students' comfort level with open and closed number lines, as well as counting by 1s from various numbers with 120.
- The Unit 4 Assessment is scheduled during Module 3, Session 5. Together, discuss your way through the process of conducting the Unit 4 Assessment as outlined in the Actions & Dialog section of the Teachers Guide.
- Module 4 contains work related to the major ideas of the grade level. This module should not be skipped.
- New Work Places are introduced in Module 1, Session 4; Module 2, Session 4; and Module 3, Sessions 1 and 5.
- Home Connections are sent home twice a week.

8 Give teachers time to read the Unit 4 Introduction independently.

Invite teachers who finish early to skim the first few sessions in Module 1. Then, give teachers a few minutes to talk with their groups about what they've read.

9 Next, ask teachers to find and study the Skills Across the Grade Levels chart in the Unit 4 Introduction.

- Ask: Which standards are introduced and developed in this unit? Are there any skills that must be mastered? [Yes; 1.OA and 1.OA.5]

10 Divide the group into four teams. Have each team read one module, then share what they've learned with the whole group.

11 Depending on the time remaining and the needs of your teachers, share some of these posts and resources.

- Using a retractable clothesline with number line games: bridges.mathlearningcenter.org/implementation/blog/learning-life-sized-number-line-and-number-line-app
- Transitioning from numbers in a line to the number line (an overview of what students are asked to do in Unit 4): bridges.mathlearningcenter.org/implementation/blog/transitioning-numbers-line-number-line
- Support and intervention information in the Assessment Guide for Unit 4: bridges.mathlearningcenter.org/view/br1-ag#87

Bridges Giveaways

Unit 4 Family Overview

1 copy per teacher

Checkpoint and Unit Assessment

Module 2 T4–T5

Module 3 T17–T19

1 class set per teacher

Heavy cotton string

12 feet or more per teacher

Small plastic toy frogs

Two in different colors per teacher. Optionally, you can offer these as door prizes.

Scope & Sequence

The Scope & Sequence documents available in the Curriculum section of the Bridges Educator site offer a "big picture" of skills development throughout the year.

Bridges Unit 4 Work Places 15 minutes

Make sure your prepared Work Places are available for the group to use during this activity.

- 12 Let teachers know that four new Work Places are introduced in Unit 4, and they'll explore these in pairs today.
 - Let them know that they don't have to play a complete round or game of any of the Work Places—just enough to understand the general procedure of play.
 - When the group understands what to do, give them 10 minutes to pair up and explore the Work Places.
- 13 Reconvene and use the Work Place Guides to discuss strategies for differentiation, including game variations, challenge and support. Encourage teachers to get to Work Place time on a regular basis.

If you haven't already, you may want to share one or both of these blog posts with teachers:

- Tools and tips to support Work Places: bridges.mathlearningcenter.org/implementation/blog/tools-tips-support-work-places
- Providing challenge during Work Places: bridges.mathlearningcenter.org/implementation/blog/opportunities-challenge-learners

Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

- 14 If you have extra time, invite teachers to look over each module's Materials Preparation chart and come up with a plan for dividing the work.

You might also stay for a few minutes to talk with teachers who have concerns and questions that weren't addressed during the meeting.

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the [Resources section](#) of the Bridges Educator site.

Grade 1 Implementation Guide

Number Corner February

Bridges Unit 5

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Number Corner Teachers Guide, Volume 2• Bridges Teachers Guide, Unit 5• Assessment Guide (digital or print)• computer or tablet• highlighters in blue, green, and yellow	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• February Daily Planner (1 per teacher; see Preparation)• February Calendar Markers (optional)• Unit 5 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)

Preparation

- Prepare an agenda using the bold headers in this guide. In one hour you can cover Number Corner February; in two hours (or in two 1-hour sessions) you can cover Bridges Unit 5 as well. Timing suggestions for each section are included in this guide.
- Print a Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Prepare materials for the Work Places introduced in Unit 5 according to the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies and charts for teachers as giveaways. Suggested items are listed in sidebars in this guide.

Introduction & Agenda 5 minutes

1 Welcome everyone and display the agenda.

Get a quick sense of classrooms' progress in Bridges and Number Corner.

- Who is finishing up Unit 4?
- Who has established time and space for all five Number Corner workouts?
- What family resources have they shared?
- Who has used Digital Display Materials?
- Who's made use of any of the free apps available from The Math Learning Center? (See catalog.mathlearningcenter.org/apps for a list and download links.)

February Number Corner Preview 50 minutes

- 2 Ask teachers to turn to the February section of their Number Corner Volume 2 binders and give them a few minutes to look at the sample display and review the introduction. Then have them locate the Target Skills section on page 2. Compare these to the Critical Areas of Focus in the Assessment Guide Overview.

You can also use the Achieve document, available from Achieve the Core and linked on the Math Coaches tab in the Implementation section of the Bridges Educator site:

http://achievethecore.org/content/upload/SAP_Focus_Math_1.pdf

- Ask: Which workouts are a priority for grade 1 students? Have teachers use colored highlighters to identify the standards that are major (green), supporting (blue) and additional (yellow).
- Considering these priorities, which workouts should they be sure to address this month?

- 3 Schedule the month's Number Corner activities.

Pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates, resolving any differences in the number of actual teaching days.

- 4 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.

- Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
- Give teams about 10 minutes to read their workout and prepare to teach the others. Assist any team with a workout they find confusing. Fill in any additional information you feel might be helpful from the following notes.

Calendar Grid Geoboard Shapes

- Each marker presents a pair of triangle or quadrilateral figures. Students develop understandings about defining and non-defining attributes of these shapes and determine whether the two are congruent (identical in size and shape). Congruency and transformations are not first grade standards, but often provides a spatial challenge for students.
- Try MLC's free Geoboard app (catalog.mathlearningcenter.org/apps) with this workout. To superimpose shapes, use the duplicate item tool. Then you can slide, flip, or turn the shape as needed. This post shows how a teacher incorporated both geoboards and the Geoboard app: bridges.mathlearningcenter.org/implementation/blog/gotta-get-geoboards
- Four quadrilaterals are featured this month: rectangles, rhombuses, parallelograms, and trapezoids. Post the Word Resource Cards for these terms to encourage use of precise math language. See Mathematical Background in the unit introduction for more information.

Calendar Collector Collecting Cubes

- Each day students spin a 1–10 spinner to determine the amount of Unifix cubes to add to the weekly collection. A ten-strip model is used to make visual a number's part-whole relationship to 10. When looking at the week's collection, students decompose single-digit numbers and use the associative and commutative properties of addition to make sets of ten.
- Consider sharing the post Cube Collections, Multiple Addends & Frog Fun, which highlights three workouts from this month: bridges.mathlearningcenter.org/implementation/blog/cube-collections-multiple-addends-frog-fun

February Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the [Resources section](#) of the Bridges Educator site.

Calendar Grid Observations Chart

Make and laminate blank charts with column headers and title as shown in the Calendar Grid workout.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Cube Collection Data Sheet (T1)

4 copies per teacher

Tad Pointer Cutouts (T5)

5–6 copies per teacher, printed on card stock, then cut apart along the dashed lines (the dotted lines are for folding). Each student needs one two-sided frog piece.

Days in School One Hundred Days of School & More

- One square on the hundreds grid is filled in each day, and students continue to use additive and multiplicative thinking when writing equations as they decompose 100 into 5s, 10s, 25s, and 50s. The repetition of this routine builds students' understanding of hierarchical inclusion and unitization.
- Once the 100th day of school has passed, teachers add a second hundreds grid and the routine now combines both hundreds grids to record the number of days in school. It is important to teach students to avoid using the word *and* when reading whole numbers beyond 100. The word *and* should be used for reading fraction and decimal mixed numbers (e.g., $2\frac{3}{4}$) and when discussing 10 and more (e.g., 3 tens and 4 ones).

Computational Fluency Multiple Addends

- Students use flexible and efficient strategies to find friendly number combinations, such as addends that make 10, Doubles facts, or known facts when adding multiple addends. The Ten-Frame-Five-Wise Display Cards (blue dots) help students visualize the combinations, apply the associative property of addition, and use compensation strategies.
- Note that having students explain their thinking and explore different possibilities helps others develop efficient and flexible thinking.

Number Line The Tenth Decade

- The class celebrates the landmark number 100 when the Tenth Decade Day/100th Day of School arrives! Celebrating this day as the tenth decade in a series of Decade Days promotes the idea of unitizing as students consider that 100 is 10 tens and 1 group of a hundred. Several optional 100th Day activities are described in the workout for teachers who might want to make this an all-day event.
- This post includes links to a letter for families and a 100th Day song about Tad: bridges.mathlearningcenter.org/implementation/blog/tad's-tenth-decade-celebration-100th-day-school

5 Spend any remaining time discussing differentiation and other ways to get more out of February's Number Corner workouts.

- Review the suggestions included throughout this month's workouts for supporting or challenging students, and discuss additional ideas teachers might have.
- Share these tips about getting the most out of this month's workouts: bridges.mathlearningcenter.org/implementation/blog/5-tips-get-more-out-february-number-corner

Break or Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

Strategy Posters

Encourage teachers to download and post addition strategy posters if they haven't already done so. The Math Learning Center offers sets of posters for each operation in English and Spanish. Find them in the [Resources Section](#) of the Bridges Educator site.

Bridges Unit 5 Preview 35 minutes

Students use pattern blocks, Polydrons, paper shapes, and shape-sorting cards to explore two- and three-dimensional shapes and fractions (halves, thirds, and fourths). They use pattern blocks to compose larger composite shapes. Polydrons are used to form nets, which can then be folded and connected to form three-dimensional shape. Focus is on developing an understanding that attributes such as the number of sides or faces, number of vertices or corners, curved or flat surfaces are properties that define shapes; color and size are not defining attributes.

6 Invite teachers to open their Bridges in Mathematics Unit 5 binder to the introduction for Unit 5 and quickly scan the Overview. Note key details:

- While students are at Work Places during Module 1, Session 5, teachers work with small groups to compose new or larger shapes with the pattern blocks. The work first graders do with shape composition builds a foundation for rectangular arrays and the area model used in second and third grade.
- Several sessions offer suggestions for extensions and literature connections. Draw attention to these features in the sidebars of the sessions in the Teachers Guide.
- Encourage teachers to use the Word Resource Cards or free Math Vocabulary app (catalog.mathlearningcenter.org/apps) during this unit.
- The Shapes Checkpoint is scheduled during Module 2, Session 5. The Unit 5 Assessment is scheduled for Module 3, Sessions 6 and 7.
- The three sessions in Module 4 continue work with the defining attributes of two-dimensional shapes but do not contain work from the major cluster standards. If teachers won't finish Unit 5 by the end of February, they can skip Module 4 and get ready for Unit 6 in March. In this case, teachers will probably want to take one session to introduce the two Module 4 Work Places so they can be included in the Work Place rotation at the beginning of Unit 6.
- Six new Work Places are introduced in Unit 5: Module 1, Sessions 3 & 4; Module 2, Sessions 4 and 5; and Module 4, Sessions 1 & 2.
- Note that this unit's Work Places offers teachers a chance to work with students who are still struggling with counting skills, understandings of addition and subtraction, solving story problems, or addition and subtraction strategies.

7 Give teachers time to read the Unit 5 Introduction independently.

Invite teachers who finish early to skim the first few sessions in Module 1. Then, give teachers a few minutes to talk with their groups about what they've read.

8 Next, ask teachers to find and study the Skills Across the Grade Levels chart in the Unit 5 Introduction.

- Ask: Which standards are introduced and developed in this unit? Are there any skills that must be mastered? [Yes – 1.G.1, 1.G.2, 1.G.3]

Students have another opportunity to work with shapes and fractions during April's Calendar Grid workout.

9 Divide the group into four teams. Have each team read one module, then share what they've learned with the whole group.

10 Review the Support & Intervention information in the Unit 5 and Number Corner sections of the Assessment Guide.

Updated guides on the Bridges Educator site include recommendations for using Bridges Intervention to support students.

11 Remind teachers to check out the teacher tools, games, and activities available in the Resources section of the Bridges Educator site.

Bridges Giveaways

Unit 5 Family Overview

1 copy per teacher

Checkpoint and Unit Assessment

Module 2 T6–T7

Module 3 T10–T13

1 class set per teacher

Pattern Block Paper Shapes

Module 1 T12–T13

Make several copies of each sheet per teacher on colored paper, then cut apart into pattern block shapes.

If you have access to the tools needed, use a die cutting machine and dies or digital templates to cut the pattern block shapes.

Paper Cutting

per teacher:

- 400 1-inch squares, 200 each in two different colors
- 90 4-inch squares, white
- 50 paper circles (template: Module 3 T3)

Fraction Bingo Cards

Module 3 T6–T9

1 set per teacher on cardstock, laminated

Scope & Sequence

The Scope & Sequence documents available in the Curriculum section of the Bridges Educator site offer a "big picture" of skills development throughout the year.

Bridges Unit 5 Work Places 20 minutes

Make sure your prepared Work Places are available for the group to use during this activity.

- 12 Let teachers know that six new Work Places are introduced in Unit 5, and they'll explore these in pairs today.
- The Digital Display Materials could easily be used to introduce Work Places 5A Last Shape In Wins and 5B Pattern Block Puzzles. If you have display equipment available, consider demonstrating one of these Work Places to the group before sending them out to explore the others.
 - Note that students could use MLC's free Pattern Shapes app (catalog.mathlearningcenter.org/apps) with Work Place 5A Last Shape In Wins. They can also choose an outline to fill in with shapes or create their own composite shapes.
 - Students might initially use Work Place 5A Last Shape In Wins to simply rotate shapes and fit them together accurately. Encouraging students to talk about their ideas may prompt them to start strategizing shape selection and placement.
 - Let teachers know that they don't have to play a complete round or game of any of the Work Places—just enough to understand the general procedure of play.
 - Give them 15 minutes to pair up and explore the Work Places.
- 13 Reconvene and use the Work Place Guides to discuss strategies for differentiation, including game variations, challenge and support.

If your teachers might Spanish-language Work Place Instructions for helpers in the classroom, let them know that these were added to the Spanish-language Teacher Masters on the Bridges Educator site in 2016. This post has more information:

bridges.mathlearningcenter.org/implementation/blog/additional-spanish-materials-work-places

Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

- 14 If you have extra time, invite teachers to look over each module's Materials Preparation chart and come up with a plan for dividing the work.
- You might also stay for a few minutes to talk with teachers who have concerns and questions that weren't addressed during the meeting.

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the [Resources section](#) of the Bridges Educator site.

Grade 1 Implementation Guide

Number Corner March

Bridges Unit 6

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Number Corner Teachers Guide, Volume 3• Bridges Teachers Guide, Unit 6• Assessment Guide (digital or print)• computer or tablet• highlighters in blue, green, and yellow	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• March Daily Planner (1 per teacher; see Preparation)• March Calendar Markers (optional)• Unit 6 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)

Preparation

- Prepare an agenda using the bold headers in this guide. In one hour you can cover Number Corner March; in two hours (or in two 1-hour sessions) you can cover Bridges Unit 6 as well. Timing suggestions for each section are included in this guide.
- Print a Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Prepare materials for the Work Places introduced in Unit 6 according to the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies and charts for teachers as giveaways. Suggested items are listed in sidebars in this guide.

Introduction & Agenda 5 minutes

1 Welcome everyone and display the agenda.

Get a quick sense of classrooms' progress in Bridges and Number Corner.

- Who is finishing up Unit 5? Is everyone ready to begin March Number Corner?
- What online resources or apps have teachers been using in their instruction?
- What family resources have they shared?
- What tools have teachers been using to document student progress through the standards? If teachers use Excel-compatible spreadsheet software to track student progress, are they using the Assessment Tools available from the Bridges Educator site?

March Number Corner Preview 50 minutes

- 2 Ask teachers to turn to the March Introduction in their Volume 3 binder. Have them locate the Target Skills section on page 2. Compare these to the Critical Areas of Focus in the Assessment Guide Overview. Have teachers use colored highlighters to identify the standards that are major (green), supporting (blue) and additional (yellow). Ask: Which standards are a priority for students? Considering these priorities, which workouts should they be sure to address this month?
Note that this month's Days in School and Computational Fluency workouts address many of the major-cluster standards in 1.OA and 1.NBT.
- 3 Ask teachers to turn to the sample display and daily planner at the beginning of the Introduction. Give them a moment to review the sample display, then pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates. If your spring break is in March, you'll need to make adjustments for the actual number of teaching days. Focus on the workouts that emphasize the priorities teachers have identified.
- 4 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.
 - Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
 - Give teams about 10 minutes to read their workout and prepare to teach the others. Assist any team with a workout they find confusing. Fill in any additional information you feel might be helpful from the following notes.

March Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the [Resources](#) section of the Bridges Educator site.

Calendar Grid Observations Chart

Make and laminate blank charts with column headers and title as shown in the Calendar Grid workout.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Calendar Grid What Time Is It?

- The calendar markers this month introduce telling time to the half-hour and provide students with activities to practice their time-telling skills.
- Understanding halves and fourths of a circle help students connect the phrase *half past* with the minute hand halfway around the circle of the clock face. Understanding that the hour hand is halfway between two numbers when it is half past, or one half-hour, helps them to read the hour hand correctly for any time showing on an analog clock.
- Elapsed time is not a first grade standard, but it helps connect the passage of time to the fractional part of an hour and to the fraction of the whole circle.
- This post concerns the March Calendar Grid:
bridges.mathlearningcenter.org/implementation/blog/looking-elapsed-time-number-line

Calendar Collector Tens, Fives & Ones with Coins

- Students collect dimes, nickels, and pennies; record their collections in a bar graph; determine the total amount of money collected; and compare each week's collection totals.
- Unitizing (e.g., understanding that one dime is a unit of ten and one nickel is a unit of 5) is a big idea. Although counting a mixed set of coins is not a first grade standard, students who are able to count by 5s and 10s are more likely to be successful in solving word problems involving money in future grades.

Days in School Looking Beyond One Hundred

- This month's workout emphasizes seeing numbers beyond 100. There are now two hundreds grids, prompting students to see groupings of 5, 10, 25, 50, and 100. The hundreds grid helps students compose and decompose numbers by tens, and this month students will use this model to think of 10 more or 10 less of a number.
- Explaining their reasoning helps students develop flexible and efficient thinking.

Computational Fluency Think Ten

- The month begins with students reviewing fact families, the commutative property of addition, and Make Ten facts. Then students are introduced to the Think Ten strategy, in which numbers are composed and decomposed to make a ten. So Add Ten facts can be used for sums greater than 10 (associative property of addition). The ten-frame model is used to visualize these number combinations.
- The exploration of fact families using both ten frames and number trees helps students avoid misconceptions about the use of the commutative property in subtraction.

Number Line Numbers to 120

- Students discover that the number families repeat in numbers beyond 100, and they learn that 10 decades can also be thought of as one century. As students practice reading and writing numbers to 120, continue to reinforce the correct way of reading numbers over 100 (e.g., 101 is read as one hundred one, not one hundred and one).
- Unitizing is a big idea this month as students think about how 1 can represent 100, or 10, or 1000, depending on its place in a numeral.

5 Once everyone has shared, discuss Number Corner Checkup 3.

Number Corner Checkup 3 is designed to give teachers more information about students' current skills with solving story problems, reading numbers to 120, place value (tens and ones), telling time, and geometry. Plan for two 20-minute periods plus a short interview.

Break or Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

Strategy Posters

Encourage teachers to download and post addition strategy posters if they haven't already done so. The Math Learning Center offers sets of posters for each operation in English and Spanish. Find them in the [Resources Section](#) of the Bridges Educator site.

Assessment Tools

If your teachers use Excel (or software that can work with Excel files) for recording grades, remind them of the Excel scoring guides located in the Assessment Tools sidebar of the Implementation section of the Bridges Educator site.

Bridges Unit 6 Preview 40 minutes

Students use pattern blocks, Polydrons, paper shapes, and shape-sorting cards to explore two- and three-dimensional shapes and fractions (halves, thirds, and fourths). They use pattern blocks to compose larger composite shapes. Polydrons are used to form nets, which can then be folded and connected to form three-dimensional shape. Focus is on developing an understanding that attributes such as the number of sides or faces, number of vertices or corners, curved or flat surfaces are properties that define shapes; color and size are not defining attributes.

6 Invite teachers to open their Bridges in Mathematics Unit 6 binder to the introduction for Unit 6 and quickly scan the Overview. Note key details:

- Note that The Math Learning Center’s free Number Rack app (catalog.mathlearningcenter.org/apps) could be used with many activities in this unit.
- Encourage teachers who have access to digital display equipment to try out introducing new Work Places in this unit, as well as the Double-Flap Penguin Picture Cards (Module 2, Session 2) and the game Pick Two to Make Twenty (Module 2, Session 5) using the Digital Display Materials.
- Four strategies—Add Ten, Doubles & Doubles Plus or Minus One, Add Nine, and Comparison—will help students develop comfort and fluency with number facts to 20. You may want to review these strategies with teachers if time allows. They’re also covered in the Mathematical Background section of the unit introduction.
- Starting with additive iterations of a number family and emphasizing additive contexts help students see the relationship between addition and subtraction operations and solidify their understanding of what it actually means to add (combine) or subtract (separate).
- The penguin contexts provide visual and conceptual scaffolds. For example, pairs of eggs or penguins help develop Doubles and Doubles Plus One relationships. Penguins grouped in 5s and 10s reinforce the anchors of 5 and 10 and the structure of the number rack.
- The Combinations & Stories Checkpoint is scheduled for Module 2, Session 5. The Unit 6 Assessment is scheduled for Module 3, Sessions 5.
- The first three sessions in Module 4 contain work from the major cluster standards and connect to the penguin sessions from Unit 4, Module 4. The last two sessions in Unit 6, Module 4 do not contain work from the major cluster standards. If teachers won’t otherwise finish Unit 6 by the end of March, they should skip these last two sessions and get ready for Unit 7 in April.
- Three new Work Places are introduced: in Module 1, Session 4; Module 2, Session 4; and Module 3, Session 3. These Work Places can provide teachers with an opportunity to work with students still struggling with counting skills, understandings of addition and subtraction, solving story problems, or addition and subtraction strategies.

7 Give teachers time to read the Unit 6 Introduction independently.

Invite teachers who finish early to skim the first few sessions in Module 1. Then, give teachers a few minutes to talk with their groups about what they’ve read.

8 Next, ask teachers to find and study the Skills Across the Grade Levels chart in the Unit 6 Introduction.

- Ask: Which standards are introduced and developed in this unit? Are there any skills that must be mastered? [Yes – 1.OA.1, 1.OA.4, 1.OA.6, 1.OA.7, 1.OA.8]

9 Divide the group into four teams. Have each team read one module, then share what they’ve learned with the whole group.

Bridges Giveaways

Unit 6 Family Overview

1 copy per teacher

Checkpoint and Unit Assessment

Module 2 T12–T13

Module 3 T9–T12

1 class set per teacher

Charts for Module 3, Session 3

Make blank charts with column headers and titles as shown in Module 3, Session 3. Optionally, laminate them so teachers can wipe them clean and reuse them.

Alternatively, bring chart paper, markers, and a sample so that teachers can prepare their own charts during or after the meeting.

Double-Flap Dot Cards & Double-Flap Penguin Picture Cards

Module 2 T1–T6

Run 1 copy of each set per teacher on cardstock. Let teachers trim and fold them after the meeting.

Scope & Sequence

The Scope & Sequence documents available in the Curriculum section of the Bridges Educator site offer a “big picture” of skills development throughout the year.

10 Spend any remaining time discussing support and intervention.

- Review the suggestions included in this month’s Bridges sessions and Number Corner workouts for supporting students, and discuss additional ideas teachers might have.
- Remind teachers that differentiation opportunities are presented in the Work Place Guides, and that past Work Places can be reintroduced or assigned to give students more practice with particular skills.
- If teachers are concerned about students who are falling behind, give them some time to review the Assessment Guide section for Unit 6. Under Support & Intervention, they’ll find suggestions for using resources to support students in and out of the classroom, as well as Bridges Intervention volumes and modules recommended by concept or skill.

Bridges Unit 6 Work Places 15 minutes

Make sure your prepared Work Places are available for the group to use during this activity.

11 Let teachers know that three new Work Places are introduced in Unit 6, then give them 10 minutes to pair up and explore the Work Places.

Let them know that they don’t have to play a complete round or game of any of the Work Places—just enough to understand the general procedure of play.

12 Reconvene and use the Work Place Guides to discuss strategies for differentiation, including game variations, challenge and support.

- Note that students could use the Number Rack app at all three Work Places.
- Work Places 6B What’s Missing and 6C True or False include Game Variations for students who are up for a challenge.

Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

13 If you have extra time, invite teachers to look over each module’s Materials Preparation chart and come up with a plan for dividing the work.

- You might also talk with teachers who have other questions or concerns not addressed during the meeting.
- As teachers are preparing to leave, consider displaying one of the following posts about Grade 1, Unit 6.
 - » **Posing a Parade of Penguin Problems**
bridges.mathlearningcenter.org/implementation/blog/posing-parade-penguin-problems
 - » **Story Problems Simplified**
bridges.mathlearningcenter.org/implementation/blog/story-problem-structures-simplified

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the [Resources section](#) of the Bridges Educator site.

Grade 1 Implementation Guide

Number Corner April

Bridges Unit 7

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Number Corner Teachers Guide, Volume 3• Bridges Teachers Guide, Unit 7• Assessment Guide (digital or print)• computer or tablet• highlighters in blue, green, and yellow	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• April Daily Planner (1 per teacher; see Preparation)• April Calendar Markers (optional)• Unit 7 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)

Preparation

- Prepare an agenda using the bold headers in this guide. In one hour you can cover Number Corner April; in two hours (or in two 1-hour sessions) you can cover Bridges Unit 7 as well. Timing suggestions for each section are included in this guide.
- Print a Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Prepare materials for the Work Places introduced in Unit 7 according to the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies and charts for teachers as giveaways. Suggested items are listed in sidebars in this guide.

Introduction & Agenda 5 minutes

1 Welcome everyone and display the agenda.

Get a quick sense of classrooms' progress in Bridges and Number Corner.

- Who is finishing up Unit 6? Is everyone ready to begin April Number Corner?
- What online resources or apps have teachers been using in their instruction?
- What family resources have they shared?
- Who has reviewed student assessment data to decide if they need to review and reteach critical areas? What areas have they identified in need of such review or reteaching?

April Number Corner Preview 50 minutes

- Ask teachers to turn to the April section of their Number Corner Volume 3 binders and give them a few minutes to look at the sample display and review the introduction. Then have them locate the Target Skills section on page 2. Compare these to the Critical Areas of Focus in the Assessment Guide Overview.

You can also use the Achieve document, available from Achieve the Core and linked on the Math Coaches tab in the Implementation section of the Bridges Educator site:

http://achievethecore.org/content/upload/SAP_Focus_Math_1.pdf

Have teachers use colored highlighters to identify the standards that are major (green), supporting (blue) and additional (yellow). Ask: Considering these priorities, which workouts should they be sure to address this month?

Note that this month's Days in School and Computational Fluency workouts address many of the major-cluster standards in 1.OA and 1.NBT.

- Schedule the month's Number Corner activities.
 - Pass out blank copies of the planner (or ask teachers to open the customizable Excel planner). Using the school or district calendar, work together to fill in dates. If your spring break is in April, you'll need to make adjustments for the actual number of teaching days. Focus on the workouts that emphasize the priorities teachers have identified.
 - Note that some activities repeat several times this month. Teachers might decide to reduce the number of times they teach these activities in order to keep on schedule.
- Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.
 - Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
 - Give teams about 10 minutes to read their workout and prepare to teach the others. Assist any team with a workout they find confusing. Fill in any additional information you feel might be helpful from the following notes.

Calendar Grid Folding Fractions

- This month sees the return of geometry concepts to the Calendar Grid markers. Students review two-dimensional shape names and properties, discuss congruence, and explore lines of symmetry as they attempt to fold paper figures into halves and fourths. They also sort the figure collection by attributes. A sealed mystery clue adds an element of suspense to the calendar marker pattern.
- Although symmetry and congruence is not a first grade standard, the experiences first graders have now will support their understanding in later grades.
- Let teachers know that they can post the Word Resource Cards for *circle, congruent, equal, fourth, half, month, hexagon, polygon, rectangle, rhombus, side, square, symmetry, trapezoid, triangle, vertex or corner, and whole* near the Calendar Grid to help support students' discussion by providing reminders of accurate math vocabulary.

April Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the Resources section of the Bridges Educator site.

Calendar Grid Observations Chart

Make and laminate blank charts with column headers and title as shown in the Calendar Grid workout.

Alternatively, bring chart paper, markers, and a sample so teachers can prepare these charts during or after the meeting.

Paper Figures (T1–T16)

Ideally, each student will have a full set of these figures, made of paper lightweight enough to fold.

One way teachers can make the paper shapes is to cut several sheets of copy paper at a time using a card stock 'template' piece as a cutting guide. If you run a set on card stock and cut them out (run an extra of page T7), you'll have 4 sets (and some extra of a couple of the shapes). Divide them into bags and offer these template sets as door prizes.

Alternatively, if you have plenty of volunteer help available, you could run the entire class set (¼-class set of T1–T16, plus some extras of page T7) and have the volunteers cut them out, making class sets as they go.

Calendar Collector Counting & Adding with Popsicle Sticks

- Each day, students use a spinner to determine the number of craft sticks to add to the weekly collection and make tally marks to record the quantity collected, reinforcing grouping by 5s. At the end of the week, the class lines up the sticks end-to-end and cuts a piece of adding machine tape to record their length. During the last week of the month, they determine the total quantity of sticks and compare the three lengths of tape.
- These Literature Connections make good read-alouds to inspire discussions about length and measurement:
 - » *How Big Is a Foot?* by Rolf Miller
 - » *Inch by Inch* by Leo Lionni
 - » *Super Sand Castle Saturday* by Stuart J. Murphy

Days in School Expanded Notation

- The teacher introduces expanded notation as a way to write the day's number. Students are encouraged to find new ways to count the days in school as they look for groups of 10, 25 and 50 within the growing 3-digit numbers. They continue to generate and record equations for these numbers to show how many days they've been in school.
- Expanded notation helps students think about the value of each digit in a number. They can usually expand a number long before they understand the multiplicative structure of place value. For example, they use the splitting strategy when adding or subtracting 2-digit numbers. Students learn to decompose numbers even further by developing an understanding that 135 can also be 13 tens and 5 ones or 12 tens and 15 ones. This flexible understanding of numbers is helpful when composing and decomposing numbers.

Computational Fluency Numbers to 120

- Students practice with a 1–120 number grid as a visual model for addition and subtraction. A challenging version of Guess My Number asks them to think about numbers in a way more mathematically complex than in previous months. In the game Moving on the Number Grid, they practice adding and subtracting 10 to numbers found there.
- Some young learners write the number 115 as 10015 – even though they read it as 115 – because they haven't developed an understanding of how the numeral 0 works in place value. Filling in missing numbers on the grid gives students practice applying their understanding of patterns and number relationships. The grid also supports good mental math strategies, encouraging students to jump by 10s, moving up or down a column, starting with any number.

Number Line Adding & Subtracting Decade Numbers

- The Number Line pocket chart takes on a new role as students use it to explore decade numbers in sequential order as a strategy for adding and subtracting 10 from a number. They add decade numbers to and subtract them from other decade numbers while relating computational strategies they've learned for single-digit numbers.

Strategy Posters

Encourage teachers to download and post addition strategy posters if they haven't already done so. The Math Learning Center offers sets of posters for each operation in English and Spanish. Find them in the [Resources Section](#) of the Bridges Educator site.

Break or Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

Bridges Unit 7 Preview 40 minutes

The focus of Unit 7 is place value. First graders continue to develop deep understandings of numbers to 120 as they estimate, count, compare, add, and subtract 2-digit quantities using familiar models: sticks & bundles; dimes, nickels, and pennies; and the number line.

5 Invite teachers to open their Bridges in Mathematics Unit 7 binder to the introduction for Unit 7 and quickly scan the Overview. Note key details:

- The Numbers to 120 Checkpoint is scheduled during Module 2, Session 5. Students use clues and demonstrate the skills at counting by 1s, 5s, and 10s to fill in missing numbers along several number lines. They also add and subtract 2-digit numbers.
- The Unit 7 Assessment is scheduled during Module 3, Session 5. It asks students to locate missing numbers along number lines, solve double-digit computation and story problems, and write and solve equations that involve adding three or more numbers.
- If some classrooms are running behind and need to make up time, teachers can consider skipping Module 4, continuing straight to Unit 8 after the Unit 7 Assessment.
- New Work Places are introduced in Module 1, Sessions 4 and 5—only two new Work Places this month!

6 Give teachers time to read the Unit 7 Introduction independently.

Invite teachers who finish early to skim the first few sessions in Module 1. Then, give teachers a few minutes to talk with their groups about what they've read.

7 Next, ask teachers to find and study the Skills Across the Grade Levels chart in the Unit 7 Introduction.

Ask: Which standards are introduced and developed in this unit? Are there any skills that must be mastered? [Yes, many]

8 Divide the group into four teams. Have each team read one module, then share what they've learned with the whole group.

9 Spend any remaining time reflecting on the year so far and preparing for the end of the year.

- If teachers are concerned about students who are falling behind, give them some time to review the Assessment Guide section for Unit 7. Under Support & Intervention, they'll find suggestions for using resources to support students in and out of the classroom, as well as Bridges Intervention volumes and modules recommended by concept or skill.
- Remind teachers that differentiation opportunities are presented in the Work Place Guides, and that past Work Places can be reintroduced or assigned to give students more practice with particular skills.
- Highlight the fact that that the Resources section of the Bridges Educator site contains literature, songs, games, online activities and more to help with support and challenge.
- Consider sharing these posts from the Bridges blog.
 - » Hansel and Gretel's Path (marking a path in the woods with pebbles, pinecones, and breadcrumbs representing intervals of 10s, 5s, and 1s)
[bridges.mathlearningcenter.org/implementation/blog/hansel-gretel's-path](https://bridges.mathlearningcenter.org/implementation/blog/hansel-gretel-s-path)
 - » One Hundred & Beyond (place value and unitization)
bridges.mathlearningcenter.org/implementation/blog/one-hundred-beyond
 - » Suggestions for setting next year's goals:
bridges.mathlearningcenter.org/implementation/blog/check-your-rough-edges

Bridges Giveaways

Unit 7 Family Overview

1 copy per teacher

Checkpoint and Unit Assessment

Module 2 T7

Module 3 T10–T12

1 class set per teacher

Pennies

120 pennies to use instead of plastic coins in Module 4, Session 1, would make a good door prize.

Bridges Unit 6 Work Places 15 minutes

Make sure your prepared Work Places are available for the group to use during this activity.

- 10 Let teachers know that two new Work Places are introduced in Unit 7, then give them 10 minutes to pair up and explore the Work Places.
 - Let them know that they don't have to play a complete round or game of any of the Work Places—just enough to understand the general procedure of play.
 - If there aren't enough Work Place materials for everyone at once, invite pairs to review the Work Place Guides while they wait, discussing strategies for differentiation including game variations, challenge, and support.

Wrap-Up 5 minutes

If your meeting will continue, this is a good time for a stretch break. If your meeting ends or you must move on to other business, wrap up now.

- 11 If you have extra time, invite teachers to look over each module's Materials Preparation chart and come up with a plan for dividing the work.
 - You might also talk with teachers who have other questions or concerns not addressed during the meeting.

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the [Resources section](#) of the Bridges Educator site.

Grade 1 Implementation Guide

Bridges Unit 8

Number Corner May

Materials

Teachers	Facilitator
<ul style="list-style-type: none">• Bridges Teachers Guide, Unit 8• Number Corner Teachers Guide, Volume 3• computer or tablet• sticky notes, highlighters, etc.• 2–3 clean, dry half-gallon cartons (optional, for Change Boxes)	<ul style="list-style-type: none">• meeting agenda (see Preparation)• computer or tablet (with projector or display, if possible)• Number Corner Daily Planner (1 per teacher; see Preparation)• school or district calendar for May (and June, if applicable)• Unit 8 Work Place materials and tubs (see Preparation)• giveaways (optional; see Preparation and sidebars)• scissors or box knives, tape, and several sheets of card stock (optional, for Change Boxes)

Special Preparation for Unit 8: Change Boxes

Activities in Module 2 and Work Place 8B make use of Change Boxes—simple slide boxes created from half-gallon cartons (like milk or orange juice cartons). Consider providing time and materials for teachers to make Change Boxes during your meeting (see page 3). We recommend you make one Change Box of your own to get familiar with the construction before the meeting; you can also then use your Change Box as an example for teachers to work from, and for your Work Place 8B setup. You might also read this blog post, which includes photos of the construction process: bridges.mathlearningcenter.org/implementation/blog/ins-outs-change-box

Preparation

- Prepare an agenda using the bold headers in this guide. In about an hour you can cover Bridges Unit 8; in two hours (or in two 1-hour sessions) you can cover Number Corner May as well. Timing suggestions for each section are included in this guide.
- Print a May Daily Planner for each teacher. You might laminate these so teachers can clean and reuse them. Or, use the customizable Excel format planners available from the Bridges Blog: bridges.mathlearningcenter.org/implementation/blog/customizable-number-corner-planner
- Have a copy or display of the school or district calendar for May (and June, if applicable) available for use in planning out May Number Corner.
- Prepare materials for the Work Places introduced in Unit 8 according to the instructions on the Work Place Guides. Print the Work Place guide, instructions, and sentence frames for each Work Place.
- Depending on your resources, you might prepare copies, charts, and materials for teachers as giveaways. Suggested items are listed in sidebars in this guide.

Introduction & Agenda 5 minutes

- 1 Welcome everyone and display the agenda.

Suggested agenda:

- » Bridges Unit 8 (and Change Box construction)
- » Bridges Unit 8 Work Places
- » Break
- » May Number Corner

- 2 Get a quick sense of classrooms' progress in Bridges and Number Corner.

- Who has made it midway through Unit 7? Are classes on track to begin Unit 8 about four weeks before the end of the school year? (If not, you might discuss strategies for using only part of Unit 8 or accelerating the paper glider experiment; see ideas on page 42.)

- How many and which Number Corner workouts are in regular use in each classroom?

Bridges Unit 8 Preview 40 minutes

The final unit of the school year includes three investigations that integrate science and mathematics: simple timed experiments in Module 1, a design-test-analyze paper glider experiment in Module 3, and an exploration of human growth over time in Module 4. “Science Concepts” in the Unit Introduction describes the NSES standards addressed in each of these investigations. An additional investigation into mathematical change (Module 2) introduces early concepts in algebraic thinking. Of these investigations, the paper glider experiment serves particularly well as a project-based learning opportunity. Both this project and the Module 4 project can optionally culminate in presentations for parents, peers, or the school community.

3 Discuss a few key details about Unit 8 with the group.

- Most classrooms should strive to complete at least the first three modules in this unit, with Modules 1 and 2 being most important. 1.OA.6, several skills in 1.NBT, and many skills in 1.MD are addressed in these modules and targeted for mastery by the end of Module 3. Module 4 offers review and extension of these and other concepts.
- A Time & Change Checkpoint is scheduled for Module 2, Session 4. The Unit 8 Post-Assessment is scheduled for Module 3, Session 6. The Assessment Guide contains additional information about these and other assessment opportunities in the unit.
- New Work Places are introduced in Module 1, Session 5 and Module 2, Session 4. These Work Places address important concepts in number and operations, so teachers should make sure to plan for time for them as the year comes to a close. Let teachers know that they’ll have a chance to test out the new Work Places after you discuss the rest of the unit.

4 Give teachers time to read the Unit 8 Introduction independently.

- Call attention to the Teaching Tips and Skills Across the Grade Levels sections. Ask teachers to take note of anything that might be especially challenging when teaching this unit, and to make note of skills targeted for mastery before the end of the year.
- Give teachers a few minutes to talk with their groups about what they’ve read.

5 If your first grade classrooms won’t have 15 instructional days for Modules 1–3 of Unit 8, plan how to best use the time available.

One idea is to accelerate the paper glider investigation. Setting aside Work Places and the unit post-assessment, students could explore the entire paper glider project, from first folds to final data analysis, in as little as one school day (this will work best if the classroom has a couple of helpers). If there will be fewer than 15 days left in the school year, but an abundance of time available on one or more of those days, consider this approach.

6 Have teams each read one module, then share key ideas with the group.

- You might share this blog post about the paper glider project: bridges.mathlearning-center.org/implementation/blog/first-graders-paper-glidern-stem-fun
- If classrooms will be using Module 4, briefly discuss its special requirements.
 - » Two Home Connections in Module 3 must be assigned and completed, as the results from those assignments are used in Module 4 activities.
 - » Encourage teachers to discuss ideas for a classroom visit by a parent or friend with a young baby (6 months or younger). A baby doll can substitute, but is far less engaging!

7 If you’re making Change Boxes during the meeting, display the building instructions from the Teachers Guide (excerpted on the next page).

- Describe or demonstrate the process, then have teachers get materials and work on their boxes together or independently. Assist and answer questions as needed.

Bridges Giveaways

Unit 8 Family Overview

1 copy per teacher

Unit 8 Checkpoint and Post-Assessment

Module 2 TMs T6–T7

Module 3 TMs T2–T4

1 class set per teacher

The Baby & Me Booklet

Module 4 TM T1

1 class set, plus a couple extra, per teacher

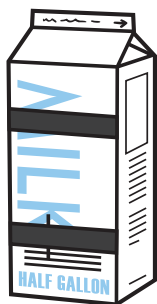
Change Box Materials

- Half-Gallon Cartons
- Sheets of Card Stock

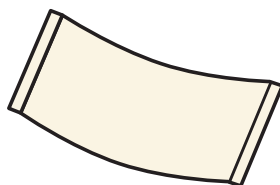
Clean, dry milk or orange juice cartons work well. Each teacher will need 2–3 cartons. See excerpt from Teachers Guide, next page, for information on making these into Change Boxes.

Preparation

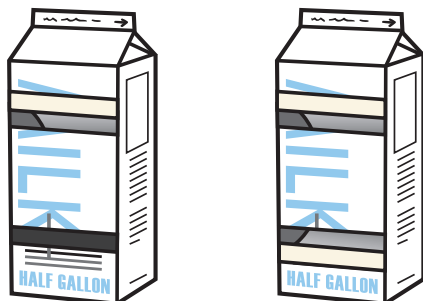
- Use a clean, dry half-gallon milk carton (or any closed cardboard box of a similar size) to make a “Change Box” — a simple function machine.
 - » Cut out two rectangular slots, each $3\frac{1}{4} \times \frac{3}{4}$, horizontally on the front of the carton, one near the top and one near the bottom.



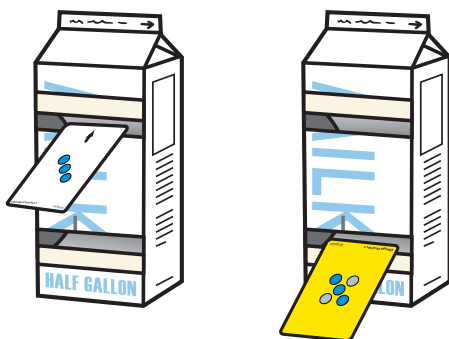
- » Cut out a “slide” (3×8) from tagboard or card stock. Fold back about half an inch at the top and the bottom of the strip.



- » Insert the slide through the top slot and tape the part you’ve folded back to the outside top edge of the slot. Reach in and pull the slide out through the bottom slot, and tape the folded part to the outside bottom edge of the slot. The slide should form a gentle curve inside the box.



- » Change Cards will go in the top slot, slide on the slide, and pop out the bottom slot with the reverse side showing.



- You’ll need one or two additional Change Boxes for Work Place 8B (introduced in Session 4).

Change Box preparation. Excerpt from Bridges in Mathematics Grade 1 Teachers Guide, Unit 8.

- You might also display this blog post, which has photos of the process:
bridges.mathlearningcenter.org/implementation/blog/ins-outs-change-box

Bridges Unit 8 Work Places 15 minutes

- Let teachers know that two new Work Places are introduced in Unit 8, and they'll explore these in pairs today.
 - In the two new Work Places, students work on addition and subtraction skills. Work Place 8A includes additional work with units of time, while 8B introduces concepts in algebraic thinking such as number patterns and patterns of mathematical change.
 - Give the group 5–7 minutes to pair up and explore the Work Places you have set up.
- Reconvene the group and use copies of each Work Place Guide to discuss strategies for differentiation, including game variations, challenge, and support.
- Note that Work Places from Units 6 and 7 continue to be available during Unit 8, and teachers can opt to bring out other Work Places from previous units for review and extension as well.

Break or Wrap-Up 5 or 10 minutes

If your meeting will continue, this is a good time for a 5-minute stretch break. If you must move on to other business, wrap up now (see “Wrap-Up” on page 46 for some end-of-year items you might want to discuss or plan).

May Number Corner Preview 40 minutes

- Ask teachers to turn to May in their Number Corner Volume 3 binders. Give them a moment to review the Sample Display and Daily Planner, then pass out blank copies of the Daily Planner (or ask teachers to open the customizable Excel planner). Work together, using the school or district calendar, to fill in dates, making adjustments as necessary based on the actual number of instructional days remaining in the school year.
 - Calendar Grid Activities 3 and 4 can be done at any time (they are not dependent on the status of the Calendar Grid display); however, Activity 1 and 2 should be done before 3–5 so that students are familiar with the hidden picture concept. All 31 Calendar Markers need to be displayed to complete the May Hidden Picture Grid; if some markers are still not revealed on the last day of school, teachers can just reveal them then and complete the hidden picture.
 - Calendar Collector will work best if the classroom has at least 10 days to update the collection. Activity 2 can be done for the last time on the last day of the year, regardless of how many days the collection has continued.
 - Days in School should be updated daily until the end of the year, but the feature activities can be done at any time. Activity 2 can be repeated as many times as desired. Activity 3 is intended to be done twice, but can be repeated additional times if the teacher makes some extra copies of the Coloring the Day's Number on Two Hundreds Grids pages from the Number Corner Student Book.
 - Schedule activities for Computational Fluency and Number Line where they fit best.

Unit 8 Work Places

No matter how teachers plan to manage the time left in the school year, encourage them to be sure they save time for the Unit 8 Work Places. These Work Places address important skills in number and operations.

Work Place Sentence Frames

Consider printing a set of the Work Place Sentence Frames for the unit for each teacher. These tools that help students communicate their ideas and actions during Work Places are available in English and Spanish from the Resources section of the Bridges Educator site.

12 Divide the group into teams to read the workouts for the month, then have each team teach the group what they've learned.

- Assign one of the Number Corner workouts (Calendar Grid, Calendar Collector, Days in School, Computational Fluency, and Number Line) to each team.
- Give teams about 10 minutes to read their workout and prepare to share with the group.
- Have each team give an overview of their workout's activities for the month.
- Fill in any additional information you feel might be helpful from the following notes.

Calendar Grid Hopping on the Number Grid

- Students help Tad navigate a number grid using clues from the month's calendar markers. Each day they color in one square on the grid, eventually revealing a hidden picture. Other Calendar Grid activities this month offer number puzzle sheets with hidden pictures and problems involving adding and subtracting 10s and 100s to and from numbers to 1,000.

Calendar Collector Fractions with Quarters

- Students extend their understanding of fractions to quarters and dollars while collecting a quarter each day. At the end of each week, they count the quarters by 25s to 100, trade groups of 4 quarters for dollars, and estimate how many dollars they can collect by the end of the school year.

Days in School Closing in on Two Hundred

- Students read and write the day's number in words, in expanded form, and in standard form; they also represent the number of days in school on two hundred grids.

Computational Fluency Adding & Subtracting to 120 on the Number Grid

- Addition and subtraction games and puzzles offer practice with strategies and visualizing number relationships.
- Teachers can easily offer more Number Neighbor Puzzles for students to do independently by putting out some copies of the Number Neighbors student page with a deck of Number Cards. Students can turn over cards to fill in the center numbers at random, then take the sheet to their own work area to complete the puzzles.
- Classes might also enjoy playing additional rounds of Guess My Number 1–120. Teachers might laminate copies of Guess My Number 1–120 student page or place copies in page protectors or transparent dry-erase folders so they can be reused. Students can play the game in small groups, taking turns choosing a secret number and answering yes-or-no questions posed by their peers.

Number Line Numbers Off the Decade by Tens

- Students use the number line to count by 10s off the decade and relate adding and subtracting 10 to this counting pattern. The activities support and review those in this month's Computational Fluency workout, but may prove to be more challenging since students do not have the number grid for support.
- Note with teachers that the Decade Day pages at the end of the Number Corner Student Book are optional activities. They can continue to use them as the number of days in school reaches each milestone (150, 160...) or simply assign them in order every two or three days as practice with the number line and counting by 10s/adding 10. **Emphasize that teachers need to be sure that students firmly understand the contextual meaning of *decade* (a ten) and *century* (a hundred) as discussed in Number Line activities throughout the year before assigning these pages.**

Number Corner Giveaways

Key Questions

Ready-to-print layouts of the Number Corner Key Questions for each month are available from the [Resources section](#) of the Bridges Educator site.

Observations Charts

Make and laminate blank charts with column headers and title as shown in the Teachers Guide for May Calendar Grid. Alternatively, bring chart paper, markers, and a sample so teachers can prepare charts during or after the meeting.

The Quarter Poem (TM T1)

1 per teacher, enlarged onto 11×17 paper

Quarter Value Pieces

1 copy per teacher

Dollar Value Pieces, Paper Dollars (TM T3 & T4)

2 copies of the value pieces and 1 copy of the paper dollars per teacher, copied on green paper (substitute play money dollars for the paper dollars if desired)

Number Corner Checkout 4 (TM T6–T10)

1 class set per teacher

- 13 Once everyone has shared, invite teachers to turn to the May Assessment page in their binders, and quickly discuss Number Corner Checkup 4.

At the end of this month, students will take the last of the quarterly Number Corner checkups. This checkup is designed to assess progress toward the standards listed. Note that the final checkup of the year is not a summative assessment; it does not check *all* of the mathematics skills students have studied over the school year.

The Comprehensive Growth Assessment included in the Assessment Guide can serve as a summative assessment or as the material for creating such an assessment.

- 14 Depending on the needs of your group, spend additional time on Key Questions or differentiation suggestions for each activity.

Wrap-Up 10 minutes

- 15 Take a few minutes to discuss the end of the school year. Possible topics:

- If your school has an end-of-year parent night or community open house, ask teachers to consider planning to display students' final paper gliders and data, or their life timelines and Baby & Me Booklets from Module 4, at the event.
- Let teachers know how to refer students who may need additional support in mathematics in order to approach the work in Grade 2—screening, intervention, summer opportunities, etc.
- You might also stay for a few minutes to talk with teachers who have concerns and questions that weren't addressed during the meeting, or to share some more information from the Bridges blog.



If you have time, see the Implementation Resources collection for blog posts to share on revisiting Work Places and extending Number Corner at the end of the school year.