

Unit Meeting 2

Preparing to Teach Unit Three: Geometry & Measurement

Recommended Timing

1 hour to 1.5 hours in late October (Can be combined with Meeting 2, Preparing to Teach November Number Corner, if you have at least 2 hours to meet)

Materials You'll Need for the Meeting

Each teacher will need to bring:

- Teachers Guide Volume Two
- Getting Started
- State Supplement (You would have received one in your Bridges kit if this applied to you.)
- pen
- notebook
- sticky notes

The group will need:

- this guide, 1 copy for each teacher
- Successes & Challenges (Sheet U2.1), 1 copy for each teacher
- Instruction & Assessment of Key Unit Three Learning Objectives (Sheet U2.2), 1 copy for each teacher
- Sharing Responsibilities for Unit Three (Sheet U2.3), 1 copy for each teacher
- Challenges & Solutions (Handout 1), 1 copy for each teacher

Part I: Reviewing Roles & Agenda (5 minutes)

Confirm or assign roles of facilitator, record keeper, and timekeeper. Begin the meeting by looking over the agenda on the next page, making sure to note the time and purpose of each section. While you could spend more time on each part of the meeting than is indicated below, follow these recommendations as much as possible in order to accomplish the goals of the meeting in about an hour. If you have more than an hour, take a moment now to identify those parts of the meeting where you'd like to spend more time.

Part	Time	Purpose
I Reviewing Roles & Agenda	5 minutes	Clarify group members' roles and review what will happen in today's meeting.
II Recording Your Successes & Challenges	5 minutes	Reflect silently and privately on implementing Bridges so far; use your sheet during this meeting to record potential solutions to your challenges
III Looking at the Unit Three Planner	5 minutes	Develop a big picture of the unit
IV Exploring Unit Three	5 minutes	Locate resources in the Teachers Guide that will be helpful as you plan for and teach the unit
V Reading the Unit Three Introduction	10 minutes	Deepen your understanding of the big mathematical ideas in the unit, as well as the flow of the instruction and assessment
VI Completing the Instruction & Assessment of Key Unit Three Learning Objectives Chart	15 minutes	Identify when the most important learning objectives in the unit will be taught and assessed
VII Sharing Advance Preparation Responsibilities	5 minutes	Share responsibilities for preparing to teach the unit among group members and determine the place, date, and time for your next meeting
VIII Sharing Successes, Challenges & Solutions	10 minutes	Listen to, support, and share ideas with colleagues, with an emphasis on generating solutions to challenges

Part II: Recording Your Successes & Challenges (5 minutes)

Each group member should take a few moments to reflect on the experience of working with the Bridges curriculum at this point in the year. Then, take about four minutes to fill out a Successes & Challenges sheet (Sheet U2.1). Please note that you will have an opportunity to share from this sheet at the end of the meeting—do not begin to discuss this sheet now. During the meeting, you can record potential solutions to challenges as they come up.

Part III: Looking at the Unit Three Planner (5 minutes)

Note: If you received a state supplement in your Bridges kit, it is very important to use the planner and activities included with that supplement.

Turn to page 327 in the Teachers Guide. Mark this page with a labeled sticky note. Spend a minute or two looking over the Unit Three Planner and then discuss how you can use the information this planner provides to plan your instruction for the unit. The questions below may help structure your discussion.

- When is the first assessment?
- How often are Home Connections assigned?

- At the end of which sessions will you collect work samples?
- In which sessions will you introduce new Work Places?
- Which session has a literature connection with a math story?
- When is the post-assessment?

Part IV: Exploring Unit Three (5 minutes)

Use the chart below to locate and skim several important sections of the Teachers Guide that will be helpful as you plan for and teach Unit Three. *We recommend bookmarking each page with a sticky note so it is easy to find the information again.* You'll be able to find what you're looking for even more quickly if you label each sticky note.

Grade 4 Unit Three Helpful Resources		
Page Numbers	Resource	Description
Volume Two Teachers Guide		
319–321	What's Going to Happen in This Unit?	Provides a detailed summary of the unit and includes when students do assessments, problems & investigations, and work places. Describes what students actually do and what models they use.
322–324	What's the Big Idea?	Explains the main purpose of the unit and the rationale behind how the big ideas are taught. Describes <i>Levels of Thinking in Geometry</i> and includes tips for computational practice during this unit which focuses on shapes and spatial problem-solving
328–330	Materials You'll Need for Unit Three	Provides a comprehensive list of everything you will need to gather and do to prepare for Unit Three, including manipulatives and materials, overheads, blacklines, assessments, books, and more.
324–326	Skills Across the Grade Levels	Shows not only the skills and concepts addressed in Unit Three, but also shows where these skills are addressed in Grade 3, Grade 4 and other places in Grade 5. Also shows whether skills should be introduced, developed, mastered, or extended to higher levels.
325 & 326	Assessment	Describes the formal assessments provided in Unit Three.
359–361	Looking at Student Work	Helpful advice for looking at student work on the pre-assessment. Focusing on the pre-assessment will help guide your instruction, showing you where your students are strong and where they need support.
463–467	Giving and Scoring the Unit Three Post-Assessment	Describes how to administer the Post-assessment and provides item-by-item answer key and scoring suggestions, also includes sample answers. Page 465 provides approximate correlations between points scored and levels (e.g. working above, at, or below grade level)
Getting Started		
28–32	Overview of Program Resources	Provides a very concise look about what each program resource offers. Also includes a list of the Ancillary Bridges Materials and their purposes.
84–88	Organizing & Managing Manipulatives	Provides tips for material management, the contents of a toolbox, and storage alternatives if toolkits are not working for you.

Part V: Reading the Unit Three Introduction (10 minutes)

Take about ten minutes to read the Unit Three Introduction in silence (Teachers Guide Volume Two pages 319 - 326). As you read, consider these questions and make notes if you like:

- What are the learning objectives for your students? What do you want students to know and be able to do by the end of the unit?
- As you are teaching the unit, what assessment tools and opportunities will you use to determine whether students are meeting the learning objectives?

If you finish before the others, look through the sessions in this unit.

Part VI: Completing the Instruction & Assessment of Key Unit Three Learning Objectives Chart (15 minutes)

As a group, read the paragraph at the top of the Instruction & Assessment of Key Unit Three Learning Objectives (sheet U2.2). Work together with your colleagues to identify when each of the three learning objectives is taught. Be sure to include both Problems & Investigations (the whole group lessons) and Work Places (partner games and activities).

Then, work together to identify the assessments that will allow you to determine whether every student in your class has met the three learning objectives. Remember to consider both formative and summative assessments, and don't limit your list to formal paper-and-pencil tasks: also consider opportunities for observation and other informal assessments.

This discussion and exercise should be a collaborative effort. It is important to help and support each other as you continue to work through implementing Bridges. Note that this sheet will be turned in to your administrator, if this is what you agreed upon in the initial meeting.

Part VII: Sharing Advance Preparation Responsibilities (5 minutes)

Use the Sharing Responsibilities for Unit Three chart (Sheet U2.3) to assign advance preparation tasks to specific group members. For example, one person might take responsibility for running copies of all the blacklines, while someone else agrees to run copies of all the assessment blacklines. If you have reliable parent volunteers or an assistant, you could also use this list to identify what they can do to help you.

Assign one person to photocopy and distribute finished copies of all the work products from this meeting (including any copies your principal has requested), including the Successes & Challenges sheets, which will be completed in Part VIII

below. This will ensure that everyone has a record of the agreements you reached in this meeting. Also confirm the date, time, and location of your next meeting.

Part VIII: Sharing Successes, Challenges & Solutions (10 minutes)

Spend whatever time you have left in this meeting discussing the successes and challenges you wrote at the beginning of the meeting. During this discussion, you will probably discover that your implementation is already successful in many ways, that you share some of the same struggles, and that your colleagues have insightful solutions to share. Be sure to start with the successes and reflect on what is going well before moving on to the challenges.

When you share the challenges you've encountered, work together to brainstorm solutions for them. Add helpful suggestions to the Solutions column on your chart, and refer to the Challenges & Solutions chart (Handout 1) and your Getting Started guide for additional ideas. After recording solutions to the challenges you have encountered, have each group member identify at least two solutions to try in the classroom by making a star beside them on their charts. Be prepared to report back the group at the next meeting about how these solutions have worked in your classrooms.

Before you end the meeting, give your Successes & Challenges sheets to the group member who has agreed to make and distribute copies of your work products from this meeting.

Sheet U2.1 Successes & Challenges (Parts II and VIII)

Successes

I felt like celebrating when ...
I was pleasantly surprised when ...
Other Successes

Challenges

Record your challenges in this column.	Record potential solutions (that you thought of, were shared by your colleagues, or were found on the Challenges & Solutions chart) in this column.
I felt concerned when ...	
I'd like to be more effective at ...	
Other Challenges	

Sheet U2.2 Instruction & Assessment of Key Unit Three Learning Objectives (Part VI)

This unit addresses many important skills and concepts. The three skills on the chart below are arguably the most critical for mastery at this point in time. Record when each skill is taught and assessed; some examples have been filled in for you as a starting point. Keep in mind that Work Places provide recurring opportunities for instruction, practice, and assessment of many, but not all key skills. Try to identify both formative and summative assessments for each skill.*

Learning Objective	Instruction of Learning Objective	Assessment of Learning Objective
1. Identifying angles (right, acute, and obtuse) and lines (parallel and perpendicular), and describing, comparing, and classifying various polygons.	Key Sessions and Work Places Session 6: Pattern Block Angles	Key Sessions and Work Places Student Book Pages 63 and 64 (Pattern Block Angles)
Additional instruction and practice in April Number Corner; Students should master or approach mastery with these skills in this unit.		
2. Estimating and measuring the surface area and volume of a rectangular solid using square and cubic units	Key Sessions and Work Places	Key Sessions and Work Places
Additional instruction and practice in May and June Number Corner; this skill is developed in this unit.		
3 Developing and using efficient methods for determining the area of rectangles, triangles, and parallelograms	Key Sessions and Work Places Session 2: Dividing a Rectangle	Key Sessions and Work Places Student Journals for Session 2
Students should master or approach mastery with finding the area of rectangles in this unit and should develop skills in finding the area of triangles and parallelograms in this unit.		

* **Formative assessments** provide information about student understanding during the course of instruction, while the student is learning. Formative assessments are used to guide further instruction to meet the needs of the learner.

Summative assessments measure student learning at a particular point in time, usually when instruction and practice of the assessed skill is complete, for example at the end of a unit. A post-assessment is an example of a summative assessment.

Sheet U2.3 Sharing Responsibilities for Unit Three (Part VII)

Note If a State Supplement was included with your Bridges kit, you'll need to adjust this list if some original sessions are being replaced with supplement sessions. You'll also need to add to this list if you are not using the Deluxe Bridges kit.

Task	Team Member	Date Due to Others
1. Run and distribute copies of participants' completed Successes & Challenges sheets, as well as master copies of the Instruction & Assessment of Key Unit Three Learning Objectives sheet and this Sharing Responsibilities for Unit Three sheet. This includes providing your principal with a copy of any sheets she or he has requested.		
2. Prepare for and host Meeting 3. This involves some prep work (e.g., copies).		
3. Run off copies of Assessment Blacklines. Run a class set of Blacklines A 3.1–3.3, A 3.4–3.8, and A 3.14 for each class. Run 1 or 2 copies of Blacklines A 3.9, A 3.12, and A 3.13 for each class. Run two class set of Blacklines A 3.10 and 3.11 for each class.		
4. Run Blacklines needed for Unit Three. Run one and a half class sets of Blackline 3.1, three class sets run single sided and two class sets run double sided on Blackline 3.2, a class set of Blackline 3.3 and a half class set run single sided and a class set run double sided on Blackline 3.3, a half-class set of Blacklines 3.4 and 3.5 run on white paper and half-class set of Blacklines 3.4 and 3.5 on colored paper, a class set plus a few extra of Blackline 3.6, a class set of Blackline 3.7, a quarter-class set cut in half of Blackline 3.8, and two class sets, one cut in half of Blackline 3.9 for each class.		
5. If you have not purchased Bridges Student Books, run a class set pages 49–97 for each class.		
6. If you have not purchased the Home Connections, run a class set of pages 81–120 for each class.		
7. If you have not purchased the Work Places Student Book, run a class set of pages 29–44 for each class.		
8. Each teacher will need a class set of 12-egg egg cartons and a half class set of 18-egg egg cartons. You may want to ask your students to start collecting egg cartons now.	Each teacher will do this independently.	N/A
9. Note that Sessions 1, 7, and 9–17 require various types of quick advance preparation. You also need a class set of 9 ½" by 12 ½" manila envelopes as well as a class set of regular envelopes.	Each teacher will do this independently.	N/A