

### **GRADE 3**

# **Unit 6 Introduction & Planner**

Revised for 2020-2021

**Note:** These guidance documents were developed, originally, with the hope that teachers and students would be back in classrooms this fall. Some of the recommended Problems & Investigations are not easy to facilitate in remote settings. Likewise, some Work Places are not available as <u>Digital</u> Work Places for direct student use.

If you are conducting all or some of your instruction online, we suggest you look into Bridges Tech-Enhanced Activities (TEAs), Math at Home, and resources for using Number Corner in remote settings. All of these resources were informed by the revised Scope & Sequence for 2020–21 and are available at the Resources & Support for 2020–21 section of the Bridges Educator Site. For support with selecting resources and planning for remote instruction, we encourage you to attend our monthly grade-level webinars.

### **About Unit 6:** Geometry

In this unit, students develop increasingly precise ways to describe, classify, and make generalizations about two-dimensional shapes, particularly quadrilaterals.

- In Module 1, students use tangrams to explore the defining attributes of polygons.
- In Module 2, they form polygons and special quadrilaterals to build understanding that shared attributes can define a larger category.
- Module 3 combines geometry and measurement as students measure the perimeters and areas of polygons.
- Module 4 offers students opportunities to apply what they've learned about quadrilaterals and area in the context of fractions.

Major goals for the unit include finding the area of rectangles and relating area to multiplication, using side lengths to find the perimeter, identifying

quadrilaterals, and partitioning shapes into parts with equal areas and expressing the area as a unit fraction of a whole.

**Note:** Modules 1, 2, and 4 are less critical, and therefore we recommend you begin the unit with Module 3 perimeter and area concepts.

### **Identifying Topics for Reengagment**

Depending on their experience with the last few units in Grade 2 and/or earlier months of Grade 3 Number Corner during school closures or other disruptions to instruction, students may require opportunities to reengage with the following topics relevant to Unit 6:

- Identifying different types of quadrilaterals.
- Understanding some of the defining attributes of quadrilaterals.
- Finding the area of a rectangle in square units.

To assess students' current levels of proficiency with these skills and concepts, replace the Unit 6 Pre-Assessment (Module 3, Session 1) with the Unit 6 Screener and associated Screener Implementation Guide. This short diagnostic tool will help to inform your instruction, interventions, and possible modifications to Unit 6. In addition, use selected items from Number Corner Checkup 1 and the Unit 5 Post-Assessment (as indicated in the Screener Implementation Guide), as well as observations and interactions with students during daily instruction to guide your instructional decisions. Above all, continue to **trust in the resilience and mathematical capabilities of your students and keep moving forward**.

#### **Recommended Modifications to Unit 6**

1. Consider moving the entire unit to the end of the year. If time is short, complete Module 3 first because it deals with area, which is considered major work of the grade level.

### Grade 3 Unit 6 Introduction & Planner Revised for 2020–2021

- 2. Students should have access to red linear pieces, tiles, tape measures, toothpicks, <u>pattern blocks</u> and <u>geoboard</u> (or the apps) throughout this unit.
- 3. Regarding the Unit 6 Post-Assessment (Module 4, Session 4), we recommend that you have all students do only problems 1, 4, 5 and 8. They can complete some or all of other problems as time and interest allow. Abbreviating the post-assessment in this way reduces the amount of time you have to spend collecting and recording data. Problems 1, 4, 5, and 8 assess the major measurement and geometry standards (3.MD.7, 3.MD.8, and 3.G.1) including area, perimeter and fraction concepts.

#### **Number Corner Notes**

- If time for Number Corner is limited, prioritize the workouts listed below. These recommendations are based on the major work of the grade level. You may make additional selections based on the needs of your students.
- If you will be working with only half your students on any given day, you may need to teach key activities from priority workouts twice. Examples include Calendar Grid Activities 1 & 4, Number Line Activity 1, and Calendar Collector Activity 1.

#### May

- Calendar Grid Fractions & Area with Rectilinear Figures [Reviews and extends a host of key skills and concepts, including equivalent fractions, comparison of fractions, and area.]
- **Number Line** Put It on the Line with Fractions & Mixed Numbers [Provides review and practice with fraction skills and concepts.]
- Calendar Collector Roll & Multiply [Provides practice with multiplication facts in the context of an engaging probability experiment.]

#### **Additional Notes**

• The Computational Fluency and Solving Problems workouts provide additional practice with multiplication and division facts and strategies.

## Unit 6: Geometry Planner

| Module  | Session    | Session Title   | Session Notes  | Activities for Reengagement   |
|---|------------|---|--|---|
| Module 3 Perimeter & Area NOTE moved up from Module 3 to Module 1 | <b>1</b> a | Unit 6 Pre-Assessment   | Replace Module 1, Session 1 Pre-<br>Assessment with the screener and then<br>teach Module 2, Session 6 Perimeters of<br>Paper Quadrilaterals, steps 1–8. | Focus Find the area of a rectangle in square units (CCSS 3.MD.5, 3.MD.6)  On-Grade Work Place Modifications  Observe and talk with students while they're at Work Place 6D Area or Perimeter  Provide grid paper as well as tiles and red linear pieces.  See additional support suggestions in the 6D Work Place Guide.  Work Places from Previous Grade Level  G2 WP6B Find the Area  G2 WP6C Make the Area   |
|   | 1b         | The 329th Friend: How<br>Many Tables? Part 1                                | Teach the entire session.  |   |
|   | 2          | The 329th Friend: How<br>Many Tables? Part 2                                | Teach steps 1–10. Defer the introduction to Work Place 6C Guess My Quadrilateral (steps 11–15) until Module 4, Session 1.                                |   |
|   | 3          | Metric Rectangles   | Teach the entire session.  |   |
|   | 4          | Bayard's Borrowed Tables  | Teach the entire session.  |   |
|   | 5          | Area & Perimeter Problems Work Place 6D Area or Perimeter                   | Teach the entire session.  |   |
| Module 1  | 1          | Unit 6 Pre-Assessment   | (See Module 3, Session 1A above.)  | <ul> <li>Focus Identify quadrilaterals (CCSS 2.G.1)</li> <li>On-Grade Work Place Modifications</li> <li>Observe and talk with students as they're using Work Places 6B Geoboard Polygons and 6C Guess My Quadrilateral.</li> <li>See the 6B and 6C Work Place Guides for support suggestions.</li> <li>Problems &amp; Investigations from Previous Grade Level</li> <li>G2 Unit 6, Module 1, Session 2 The Greedy Triangle Learns a Lesson</li> <li>G2 Unit 6, Module 1, Session 3 Constructing &amp; Drawing Quadrilaterals</li> </ul> |
| Investi-  | 2          | Attributes of a Rectangle   | Teach the entire session.  |   |
| gating<br>Polygons  | 3          | Creating Shape Posters  | Teach the entire session.  |   |
|   | 4          | Creating Tangrams   | Teach the entire session.  |   |
|   | 5          | Constructing Polygons with<br>Tangrams<br>Work Place 6A<br>Tangram Polygons | Skip steps 1–5. Teach steps 6–17.  |   |
| Module 2  | 1          | Making Toothpick Polygons   | Teach the entire session.  |   |
| Quadri-<br>laterals   | 2          | Introducing Geoboard<br>Polygons  | Teach the entire session.  |   |
|   |            | Work Place 6B<br>Geoboard Polygons  |  |   |
|   | 3          | Sorting Quadrilaterals  | Teach the entire session.  |   |
|   | 4          | Guess My Quadrilateral  | Teach the entire session.  |   |
|   | 5          | Writing Quadrilateral Riddles   | Teach the entire session.  |   |
|   | 6          | Perimeters of Paper<br>Quadrilaterals                                       | (See Module 3, Session 1A above.)  |   |

## Unit 6: Geometry Planner

| Module                            | Session | Session Title  | Session Notes   | Activities for Reengagement  |
|-----------------------------------|---------|--|---|--|
| Module 4<br>Shapes &<br>Fractions | 1       | Exploring Halves on a<br>Geoboard<br>Work Place 6C<br>Guess My Quadrilateral | Teach steps 1–8. Then teach steps 11–15 from Module 3, Session 2 to introduce Work Place 6C Guess My Quadrilateral.                             | Consider using the Geoboard app for one or more of these sessions. |
|                                   | 2       | Fractions on a Geoboard  | Teach the entire session.   |  |
|                                   | 3       | Geoboard Quilt Blocks  | Teach the entire session.   |  |
|                                   | 4       | Unit 6 Post-Assessment   | Teach the entire session.   |  |
|                                   |         |  | Recommendation: Have all students do problems 1, 4, 5, and 8. Invite them to complete any of the remaining problems as time and interest allow. |  |