

GRADE 3

Unit 5 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 <u>Resources & Support for 2020–21</u> section of the Bridges Educator Site. For support with selecting resources and planning for remote instruction, we encourage you to attend our <u>monthly grade-level webinars</u>.

About Unit 5: Multiplication, Division & Area

In this unit, students return to the study of multiplication, especially as it relates to division, using arrays and story problems.

- In Module 1, students are formally introduced to division as the inverse operation of multiplication.
- In Module 2, students explore the sharing and grouping interpretations of division and fact families in the context of story problems.
- In Module 3, students develop fluency with division facts and share their problem-solving skills in a forum.
- In Module 4, students find the area of rectangles in customary units using multiplication facts.

Major goals for the unit include interpreting products and quotients of whole numbers, solving story problems with all four operations, understanding

properties of multiplication and the relationship between multiplication and division, understanding concepts of area and relating area to multiplication.

Note: Unit 2 introduced and developed a conceptual understanding of multiplication. The Number Corner Computational Fluency workouts continue to support strategy retrieval and fact fluency through the end of the school year.

Identifying Topics for Reengagment

Depending on their experience with the last few units in Grade 2 and/or the first several units in Grade 3 during school closures or other disruptions to instruction, students may need opportunities to reengage with the following topics related to Unit 5:

- Finding the total number of objects in a rectangular array without counting them one by one.
- Determining how many groups of a particular size there are in a given quantity.
- Solving story problems involving situations of equal groups.
- Identifying, writing, and solving multiplication equations to represent situations of equal groups.

To assess students' current levels of proficiency with these skills and concepts, replace the Unit 5 Pre-Assessment (Module 1, Session 1) with the Unit 5 Screener and associated Screener Implementation Guide. This short diagnostic tool will help to inform your instruction, interventions, and possible modifications to Unit 5. In addition, use selected items from the Number Corner Checkup 2 (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, **trust in the resilience and mathematical capabilities of your students and keep moving forward**.

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Recommended Modifications to Unit 5

- 1. Most of the standards in the Operations & Algebraic Thinking domain are identified for mastery in Unit 5. Although some of the skills will return in Unit 7 and Number Corner workouts in March-May, focus on conceptual understanding and procedural fluency with multiplication and division strategies at this time.
- 2. We have inserted two additional sessions into Modules 2 & 3 for Work Place practice and differentiation. Consider using the activities for reengagement to provide students "just in time" learning.
- 3. Students should have access to tiles, linear pieces, number lines and base ten pieces and/or grid paper throughout Unit 5 to make sense of quantities, strategies, and properties.
- 4. Regarding the Unit 5 Post-Assessment (Module 4, Session 6), we recommend that you have all students do problems 1-4, 8 and 9. They can be invited to complete some or all of the 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, 8 and 9 assess the major multiplication and division standards, as well as concepts related to area (3.OA.1, 3.OA.2, 3.OA3 and 3.MD.5, 3.MD.6 and 3.MD.7).

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.
- March is often interrupted by spring break, resulting in even fewer instructional days. Review the monthly Target Skills, the data from Number Corner Checkup 2, and choose the workouts that will best meet the needs of your students.

March

• **Calendar Collector** Area & Perimeter of Rectilinear Figures [Features work with skills and concepts related to area and perimeter.]

- **Computational Fluency** Fact Fluency for Multiplying by Six & Nine [Provides strategy-based practice with multiplication facts for 6s and 9s.]
- **Number Line** Find the Fraction [Students represent and compare fractions greater than one on a number line.]

Additional Notes

- March Calendar Grid reviews telling time and reading graphs. While these are not considered major work of the grade level, this workout provides valuable practice with discovering and describing mathematical patterns. Consider keeping the Calendar Grid updated and encouraging student discourse around the patterns. If you have time, collect student observations on the chart.
- The Solving Problems workout supports and extends this month's Calendar Collector with problems that involve finding the area and perimeter of figures with known side lengths. Students also find the missing side lengths when given the perimeter and area of a figure.

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Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 1 Linking Multi- plication & Division	1	Unit 5 Pre-Assessment	Replace Unit 5 Pre-Assessment with Unit 5 Screener. Then teach steps 6–11.	 Focus Find the total number of objects in a rectangular array without counting them one by one (CCSS 2.OA.4, 3.OA.1) On-Grade Work Place Modifications Observe student's during Work Places, provide tile and red linear pieces and grid paper, as needed. See additional support suggestions in Work Place Guides. Work Places from Earlier in Grade 3 G3 WP2C Cover Up Number Corner Workouts from Previous Grade Level
	2	Connecting Multiplication & Division	Teach the entire session.	
	3	Multiplication & Division Arrays	Teach steps 6–19.	
	4	Game Store Story Problems, Part 1	Teach the entire session.	
	5	Game Store Story Problems, Part 2	Teach the entire session.	
	6	Game Store Story Problems, Part 3	Teach the entire session.	G2 Number Corner: <u>November Daily Rectangle, Rows & Columns</u> G2 Number Corner: <u>December Daily Rectangle, Rows & Columns</u> <u>Revisited</u>
		Work Place 5A Solving Game Store Problems		
Module 2 Multi- plication & Division Families	1	Division Story Problems & Fact Families	Teach the entire session.	Focus Determine how many groups of a particular size there are in a given whole-number quantity (CCSS 3.OA.2)
	2	Division Story Problem Forum Work Place 5B Scout Them Out	Teach the entire session.	 On-Grade Work Place Modifications Observe student's during Work Places, provide tiles and red linear pieces and grid paper, as needed. See additional support suggestions in Work Place Guides. Work Places from Earlier in Grade 3 G3 WP2A Loops & Groups G3 WP2B Frog Jump Multiplication Bridges Intervention Volume 5 Module 1 Sessions 1–4: Equal Groups of Two, Five & Ten Module 2 Sessions 6–9: Equal Groups & Equal Jumps
	3	What's Missing? Bingo	Teach the entire session.	
	3a insert	Work Place Practice	This session is reserved for small-group instruction & differentiation.	
	4	True or False?	Teach the entire session. Use the Multiplication & Division Checkpoint as a formative assessment.	

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Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 3 Division Practice	1	Sharing & Grouping Problems	Teach the entire session.	Focus Solve story problems involving situations of equal groups (3.OA.3)
	2	Sharing & Grouping Forum	Teach the entire session.	 On-Grade Work Place Modifications Observe students' problem-solving strategies during WP5A Game Store Problems. See additional support suggestions in Work Place Guides. Work Places from Earlier in Grade 3 G3 WP2A Loops & Groups G3 WP2B Frog Jump Multiplication Bridges Intervention Volume 7 Module 1 Sessions 1–4 Activities: Equal Groups; Equal Groups Problems, Product Unknown; Equal Groups Problems, Number of Groups Unknown; Equal Groups Problems, Number in Each Group Unknown
	3	Line 'Em Up Work Place 5C Line 'Em Up	Teach the entire session.	
	4	Division Capture Work Place 5D Division Capture	Teach the entire session.	
	4a insert	Work Place Practice	This session is reserved for small group instruction & differentiation.	
Module 4 Introducing Area	1	Paper Rectangles	Teach the entire session. Use the Division Checkpoint as a formative assessment.	 Focus Identify and solve multiplication equations to represent situations involving equal groups (CCSS 3.OA.1, 3.OA.3) On-Grade Work Place Modifications Observe students' problem-solving strategies during WP5A Game Store Problems. See additional support suggestions in Work Place Guides. Work Places from Earlier in Grade 3 G3 WP2A Loops & Groups G3 WP2B Frog Jump Multiplication Bridges Intervention Volume 7 Module 1 Sessions 1–4 Warm-Up 2: Six Story Problems
	2	Finding Areas Large & Small	Teach the entire session.	
	3	Measuring Area in Customary Units	Teach the entire session.	
	4	Rainbow Rectangles	Teach the entire session.	
	5	Adding Areas	Teach the entire session.	
	6	Unit 5 Post-Assessment	Teach the entire session. Recommendation: Have all students do problems 1–4, 8, and 9. Invite them to complete some or all of the other problems as time and interest allow.	

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