BRIDGES® IN MATHEMATICS

GRADE 3

Unit 3 Introduction & Planner

Revised for 2020–2021

About Unit 3 Multi-Digit Addition & Subtraction

Unit 3 reviews and extends students' thinking about place value, multi-digit addition and subtraction, and problem solving. Students practice estimating and rounding 2- and 3- digit numbers to the nearest ten and the nearest hundred. They revisit the open number line and base ten pieces to add and subtract fluently with sums and minuends to 1000.

Major goals of the unit include:

- Estimating and solving one-step story problems using addition and subtraction
- Using strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 1,000
- Using the same strategies to subtract fluently with minuends to 1,000

NOTE *Rounding to the nearest ten and hundred is first introduced in grade 3. November and December Number Corner workouts also support mastery of this standard.*

Identifying Topics for Reengagement

Depending on their experience with the Bridges Grade 2 units of instruction during school closures, students may require opportunities to reengage with the following topics relevant to Unit 3:

- Adding and subtracting 2-digit numbers
- Counting by hundreds, tens, and ones
- Reading, writing, and comparing 3-digit numbers
- Mentally finding 10 and 100 more or less than any 3-digit number

To assess students' current level of proficiency with these skills and concepts, replace the Unit 3 Pre-Assessment (Module 1 Session 1) with the Unit 3 Screener and associated Screener Implementation Guide. This short diagnostic tool will help to inform your instruction, differentiation, and possible modifications to Unit 3. In addition, use selected items from Number Corner Checkup 1 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.**

Recommended Modifications to Unit 3

- Modules 1, 2, and 4 include extra sessions for Work Place practice and differentiation. In addition to the grade 3 Work Places and Practice Pages, consider using selected Work Places and Number Corner from Grade 2 (listed in the planner below) to provide students just-in-time learning.
- Make concrete materials, like base ten pieces, available to support base ten strategies, paper-pencil representation, and mental images of quantity.
- Sessions 3 & 4 in Module 3, are optional for extension because the magnitude of the number combinations is greater than 1,000.
- The standard algorithm for addition and subtraction is not expected for mastery in grade 3. We explore it as one method because families often introduce it in a home learning environment.
- Regarding Unit 3 Post-Assessment (Module 4, Session 5), we recommend that you have all students do only problems 1, 2, 5, 6, and 7. They can complete some or all 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, 2, 5, 6, and 7 assess the major place value standards (3.NBT.1 and, 3.NBT.2) including estimation and rounding skills.

Number Corner

Remember that it may be more important than ever to implement Number Corner this year, as it provides ongoing opportunities to preview, review, and assess key skills.

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.

November

- **Calendar Grid** Multiplication Arrays [Prepares students to work with the area model of multiplication.]
- **Calendar Collector** Unit Fraction Race [Introduces skills and concepts related to fractions before Unit 4.]
- **Number Line** Rounding to the Nearest Ten [Reinforces skills with rounding and place value addressed in Unit 3.]

Additional Notes

Computational Fluency Students play a game in which they roll two dice, multiply the results, then frame and shade the results on a 10-by-10 grid. After three rounds, they find the sum of the products. Students first play the game as a class and then with a partner. Consider using this game as an additional Work Place during or after Unit 2 for more practice with dimensions and arrays, as needed.

Solving Problems Students solve one-step story problems involving addition, subtraction, multiplication, or division and write equations using a variable to represent the unknown quantity.

December

- **Calendar Grid** Unit Fraction Squares [Students explore halves, thirds, fourths, sixths, eighths, and twelfths, and find equivalent fractions.]
- **Calendar Collector** Collecting Grams [The teacher adds objects to a growing collection. Before adding the object(s), students find the mass in grams and record it on a record sheet. The challenge is to create a collection that is close to 1,000 grams.]
- **Number Line** Rounding to the Nearest Hundred [Reinforces skills with rounding and place value addressed in Unit 3.]

Additional Notes

Computational Fluency Fact Fluency for Multiplying by Zero, One & Two If your students need additional practice with these foundational facts, consider using the Scout Them Out pages as independent practice.

Solving Problems Students complete two multiplication problem strings that focus on using the distributive property on a number line and an array model. Consider using these problem strings as needed.

Unit 3: Multi-Digit Addition & Subtraction Planner

Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 1 Rounding & Multi-Digit Addition	1	**Unit 3 Pre-Assessment**	Replace Unit 3 Pre-Assessment with Unit 3 Screener and then send students out to Work Places.	**Focus** ***Addition within 100 (2.NBT.5)*** **On-Grade Work Place Observations & Modifications** Observe students while playing WP3B Round & Add Tens. See support suggestions in the Work Place Guide for WP3B, and make base ten pieces available to students who wish to use them. **Work Places from Previous Grade Level** • Grade 2 WP3A Star Power • Grade 2 WP3B Five in a Row **Number Corner Workouts from Previous Grade Level** Grade 2 February Daily Rectangle, The Base Ten Bank: Addition **Bridges Intervention Volume 3** • Module 4 Sessions 16–19, Adding Tens to Tens, Ones to Ones: Warm-Ups and Activities • Module 5 Sessions 21–24, Adding Two-Digit Numbers on a Number Line: Warm-Ups and Activities
	2	**Rounding to the Nearest Ten** Work Place 3A Round Ball Tens	Teach the entire session.	
	3A	**Round & Add Tens** Work Place 3B Round & Add Tens	Teach the entire session.	
	3B Insert	**Work Place Practice**	Consider using some of the Activities for Reengagement.	
	4	**Rounding to the Nearest Hundred**	Teach steps 6–11. Consider using some of the Activities for Reengagement.	
	4B Insert	**Introduce Work Place 3C Round Ball Hundreds** Work Place 3C Round Ball Hundreds	Teach session 4, steps 12–20. Consider using some of the Activities for Reengagement.	
	5	**Three-Digit Addition Story Problems**	Teach the entire session.	
	6	**Three-Digit Addition Story Problems Forum**	Teach the entire session.	
Module 2 Multi-Digit Subtraction	1	**Three-Digit Subtraction Story Problems**	Teach the entire session. Use the Checkpoint as a formative assessment of 3.NBT.1 & 3.NBT.2.	**Focus** ***Subtraction within 100 (2.NBT.5)*** **On-Grade Work Place Observations & Modifications** If you have put away G3 WP1H Anything But Five, consider bringing it out again and adding it to your on-grade collection of Work Places. **Number Corner Workouts from Previous Grade Level** Grade 2 March Daily Rectangle, The Base Ten Bank: Subtraction **Bridges Intervention Volume 3** • Module 6 Sessions 26–29, Subtracting Tens from Tens, Ones from Ones: Warm-Ups and Activities • Module 7 Sessions 31–34, Subtracting Two-Digit Numbers on a Number Line: Warm-Ups and Activities
	2	**Constant Difference**	Teach steps 1–6. Consider using some of the Activities for Reengagement.	
	2B Insert	**Constant Difference** continued	Teach session 2, steps 7–18. Consider using some of the Activities for Reengagement.	
	3	**Which Makes the Most Sense?**	Teach the entire session.	
	4	**Charting Subtraction Strategies**	Teach the entire session. Use Work Sample as a formative assessment of 3.NBT.1 & 3.NBT.2.	
	5	**Subtraction Strategies Forum**	Teach the entire session.	

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Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 3 Estimating to Add & Subtract	1	**Round & Add Hundreds** Work Place 3D Round & Add Hundreds	Teach the entire session. Use Checkpoint as a formative assessment of 3.NBT.1 & 3.NBT.2.	**Focus** *Write and compare numbers (2.NBT.3 & 2.NBT.4)* **On-Grade Work Place Observations & Modifications** Observe students using place value thinking. Provide base ten pieces, a number line, and/or the Number Pieces and Number Line apps to support conceptual understanding of hundreds, tens, and ones. **Work Places from Previous Grade Level** Grade 2 WP 3D Base Ten Triple Spin
	2	**Sketching & Writing Expanded Notation**	Teach the entire session,, use base ten pieces with sketches	
	3	**About How Far?**	Consider this session optional, for extension. (Some of the distances are more than 1,000 miles.)	
	4	**Solving Travel Miles Problems**	Consider this session optional, for extension. (Some of the distances are more than 1,000 miles.)	
Module 4 Exploring Algorithms Addition & Subtraction	1	**Exploring the Algorithm for Addition**	Teach the entire session. Note that mastery of the standard algorithm is not required in Grade 3.	**Focus** *Add or subtract 10 and 100 to or from any 3-digit number (2.NBT.8)* **Work Places from Previous Grade Level** Grade 2 WP7A Race to the Cookie Jar **Number Corner Workouts from Previous Grade Level** • Grade 2 March Number Line: Put it on the Line • Grade 2 May Number Line: Adding & Subtracting Tens & Hundreds
	2	**Think Before You Add**	Teach the entire session. Skip # 5 on T2	
	3A	**Exploring the Algorithm for Subtraction**	Teach the entire session as is. Note that mastery of the standard algorithm is not required in Grade 3.	
	3B Insert	**Work Place Practice**	Consider using some of the Activities for Reengagement.	
	4	**Think Before You Subtract**	Teach the entire session. Skip item d on Student Book page 100.	
	5	**Unit 3 Post-Assessment**	Teach the entire session. Recommendation: Have all students do problems 1, 2, 5, 6, and 7 on the post-assessment. Invite them to complete some or all of other problems as time and interest allows.	