



KINDERGARTEN

Unit 3 Introduction & Planner

Revised for 2020–2021

About Unit 3

Bikes & Bugs: Double, Add & Subtract

Unit 3 builds the foundation for addition and subtraction through the concept of doubles with bike wheels and pair-wise ten-frames. Students add and subtract 1, work with combinations of 5 and 10, and begin to write equations. They solve story problems and work to connect quantities to the written notation. Ordering and comparing numbers through games helps students develop confidence with the counting sequence, 1:1 correspondence, numeral recognition, subitizing, and cardinality.

- In Module 1, students are introduced to doubles, even numbers, and counting by 2s through bike wheels and pair-wise ten-frames. The Grab Bag Doubles Work Place is introduced.
- In Module 2, students continue their exploration of doubles and are introduced to adding and subtracting one. Two new Work Places, Butterfly Race and Spill Ten Beans, are introduced.
- In Module 3, students work with five-frames and ten-frames to connect quantities to equations. They solve story problems involving doubles and adding/subtracting 1. They revisit the concept of greater than/less than with cube trains. A new warm-up routine of counting forward and backward from various numbers is taught. Two Work Places, Grab Bag More or Less and Bicycle Race, are introduced.
- In Module 4, students order numbers and quantities to 10. Combinations to 5 are revisited. The new warm-up routine continues and the Fives Up Work Place is introduced.

Major goals for Unit 3 include solidifying students' rote counting skills (forward and backward), one-to-one correspondence, and cardinality to 10 while helping them employ strategies that lay the groundwork for addition. As students add or subtract 1 from a quantity and compare quantities, they deepen their understanding of our counting system and magnitude of numbers.

Identifying Topics for Reengagement

Depending on their experience with the Bridges Pre-K units of instruction or other Pre-K programs/preschools/curriculum during school closures or other disruptions to instruction, students may require opportunities to reengage with the following topics relevant to Unit 3:

- Count to 20 from a number other than 1
- Cardinality to 10
- Quick recognition of quantities on ten-frames
- Count backward from 10

We recommend that you rescreen individuals who were not previously successful with one or more tasks on the Unit 2 screener. In addition, screen all students for the skills listed above during Module 1. Use the Unit 3 Screener Implementation Guide to help interpret the results. This short diagnostic tool will help to inform your instruction, differentiation, and possible modifications to Unit 3. Reengagement suggestions for Unit 2 will continue to be appropriate during much of Unit 3 as will be the new reengagement suggestions listed in this planner. In addition, use observations and interactions with students during daily instruction and Work Places to guide your instructional decisions. **Above all, trust in the resilience and mathematical capabilities of your students and keep moving forward.**

Your repeated practice and focus on these early math concepts through Number Corner, Problems & Investigations, and Work Places will lay the necessary groundwork for students' continued growth this year. Kindergartners need multiple opportunities to practice these new skills—as many as 24 times before a concept makes its way to long-term memory. Knowing where they are functioning along the continuum of developmental progressions can help you determine next steps for individual students. For more insights and ideas, have a look at the Bridges Blog article [Early Intervention in Kindergarten](#).

Recommended Modifications to Unit 3

- While Unit 3 contains a less explicit emphasis on building community and routines, you will find it is critical to continue reinforcing these to support your students socially, emotionally, and academically. Building a classroom community is a year-long task. Incorporating math into community building can help. Consider adding a morning greeting (without the handshakes!) into your morning meeting. You may find you need to revisit Work Place behaviors and protocols too. These Bridges Blog posts may be helpful: [Managing Work Places in the Primary Grades](#), [Tools & Tips to Support Work Places](#), and [Making Work Places Work for You](#).
- The primary goal of this unit is to help students continue to develop number sense skills, to decompose/compose numbers within 10, and to subitize. Nudge students gently in this direction; developmentally, some students may need to focus on these skills within the range of 1 to 5 while others are ready for 1 to 10. Watch carefully to determine students' readiness for more efficient strategies.
- The Unit 3 Screener is designed as a brief, individual interview and includes four tasks: 1) counting to 20 from a number other than 1; 2) cardinality to 10; 3) subitizing quantities on ten-frames; and 4) counting backward from 10. Use the information from the screener to identify students who may need additional support in the form of small group work during Work Places.
- Along with the screener, you may choose to use the Beat You to Ten Checkpoint to collect additional information about students during Work Places. We recommend that you skip the Working with Numbers Checkpoint. Use the Unit Screener, Number Corner Check-Up, and your observations to guide your instruction and differentiation.

Work Places

Consider making adjustments to the Work Places in this unit similar to those suggested in the Unit 1 Introduction & Planner.

Number Corner

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 or alternate 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: November Days in School, Activity 1 and Number Line Activity 4. In December these include Calendar Grid, Activity 1; Days in School, Activity 1; and Number Line, Activity 1. Students should participate in all the Computational Fluency activities for November and December.

November

- **Calendar Grid** Flat & Solid Shapes [Supports identifying, analyzing, and comparing 2-D and 3-D shapes, patterns, counting skills, numeral recognition, and developing your classroom community around the calendar/schedule.]
- **Days in School** [Supports counting, subitizing, cardinality, 1:1 correspondence, counting on, number sense, grouping in 5s and 10s, numeral recognition, and making 10. Students learn to draw sketches to show their thinking.]
- **Computational Fluency** Combinations of Five [Supports 1:1 correspondence, cardinality, counting, subitizing, and decomposing quantities within 5.]
- **Number Line** Numbers Before & After [Supports forward/backward counting within 25, counting from a number other than 1, numeral recognition, numeral writing, the next number that is 1 larger, and concepts of before, after, and in between.]

Additional Notes

Calendar Collector (Collecting Sticks) is fun and engaging. If you have time to include this workout, it will reinforce many of the skills being addressed in other workouts. However, if time is short, drop this workout until you can include it.

Days in School and Number Line are workouts that build cumulatively across the year. These routines provide important continuity for children, but because they repeat frequently, it is less important that every student experience every

activity each month. Even if students are present for only some of the days that these are areas of focus, it is not necessary to repeat these activities unless a major concept is being introduced (drawing to make 10, for example) as all students will gain sufficient exposure over the month and the year.

December

- **Calendar Grid** Where's the Bear? [Supports identifying and describing the relative position of an object, patterns, counting skills, numeral recognition, and developing your classroom community around the calendar/schedule.]
- **Days in School** Counting the Days Until Winter Break [Supports counting forward and backward, subitizing, cardinality, 1:1 correspondence, counting on, number sense, grouping in 5s and 10s, numeral recognition, and making 10.]

- **Computational Fluency** Numbers from Six to Ten [Supports 1:1 correspondence, cardinality, counting, subitizing, decomposing quantities within 5, and the concept of five and some more.]
- **Number Line** Numbers Before & After [Supports forward/backward counting within 29, counting from a number other than 1, numeral recognition, numeral writing, numeral order, and concepts of before, after, and in between.]

Additional Notes

Calendar Collector (Collecting Pattern Block Shapes) is fun and engaging. If you have time to include this workout, it will reinforce many of the skills being addressed in other workouts. However, if time is short, drop this workout.

See November's note about Days in School and Number Line.

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Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 1 Bicycle Doubles	1	Bicycle Wheels, Part 1	Teach the entire session. Rescreen students on Unit 2 Screener tasks as needed. Conduct the Unit 3 Screener during this module and the next as time permits.	Focus Rote Count to 20, 1:1 correspondence to 10, Cardinality to 10, Subitize to 5, Decompose numbers within 10, Numeral Recognition, and Count on Activities from Bridges Pre-K <ul style="list-style-type: none"> • Teddy Bear Handfuls (Sorting, counting, recording, and comparing two colors of bears on five-frames) • How Many Spots on a Ladybug? • Put Spots on the Bugs Counting Collections Provide containers of items to count each morning as a warm-up or as a Work Place activity. Students count the items onto ten-frames and report or record the quantity. Math at Home Use the archive of activities as warm-ups or small-group activities.
	2	Bicycle Wheels, Part 2	Teach the entire session.	
	3	Growing Patterns: These Bikes Have Two Wheels	Teach the entire session.	
	4	Grab Bag Doubles	Teach the entire session. Use the Beat You to Ten Checkpoint to collect additional information about students during Work Places.	
	5	The Bike Chart Work Place 3A Grab Bag Doubles	Teach the entire session.	

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Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 2 Adding & Subtracting Ones	1	Introducing Work Place 3B Butterfly Race	Teach the entire lesson.	<p>Focus <i>Rote Count to 20, 1:1 correspondence to 10, Cardinality to 10, Subitize to 5, Decompose numbers into pairs, Numeral Recognition, Count on, and Count backward</i></p> <p>On-Grade Work Place Support See support suggestions in Work Place Guides.</p> <p>Activities from Bridges Pre-K</p> <ul style="list-style-type: none"> • Jump High, Count Low with Chirpy • Ladybug Countdown activity with the Ladybug Countdown Story • Six Silly Robots story with activity below • Six Silly Robot activity • Number Path with Teddy Bears 1–10 • Number Path with Tally Marks 1-10 <p>Count & Count Some More Remember to include counting activities throughout your day, including counting on and counting backward.</p> <p>Literature Connections from Bridges Pre-K Use this list to select books that support counting backward.</p>
	2	Butterfly Countdown Work Place 3C Spill Ten Beans	Teach the entire session. Spill Ten Beans modifications: Consider using a format similar to the Digital Display for Spill Ten Beans . Two cups of 5 beans shaken onto two different pieces of paper supports both counting on and subitizing. You might also glue 5 beans to a piece of paper marked with the numeral 5 and give students 5 beans in a cup to shake, spill, and count on.	
	3	Bugs: Growing & Shrinking By Ones	Teach the entire session.	
	4	The Bowl Game: Add One	Teach the entire session.	
	5	The Bowl Game: Subtract One	Teach the entire session.	
Module 3 Add, Subtract, & Double It!	1	Writing Equations	Teach entire session.	<p>Focus <i>Rote Count to 20, 1:1 correspondence to 10, Cardinality to 10, Subitize to 5, Decompose numbers into pairs, Numeral Recognition, Count on, and Count backwards</i></p> <p>On-Grade Work Place Observations During Work Places, watch for students' counting strategies. Use the support suggestions in the Unit 3 Work Place Guides to nudge students towards more efficient strategies like subitizing, counting on from 5, and using the structure of doubles.</p> <p>Activities from Bridges Pre-K</p> <ul style="list-style-type: none"> • How Many Spots on a Ladybug? • Put Spots on the Bugs • More Spots • Match the Spots • Robot Control Buttons • More Robot Control Buttons • Catch the Cricket Doubles Cards (Use for Memory games or Go Fish)
	2	Bicycle Story Problems	Teach entire session.	
	3	Grab Bag More or Less	Teach entire session.	
	4	Bicycle Race Work Place 3D Grab Bag More or Less	Teach entire session.	
	5	Build it to Ten! Work Place 3E Bicycle Race	Teach entire session. Skip the Working with Numbers Checkpoint.	

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Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 4 Put Them In Order	1	Numbers & Ten-Frames Bingo	Teach the entire session.	Focus <i>Rote count to 20, 1:1 correspondence to 10, cardinality to 10, subitize to 5, decompose numbers into pairs, numeral recognition, count on, and count backward.</i> On-Grade Work Place Observations Use the support suggestions offered in the Work Place Guides. Activities from Bridges Pre-K <ul style="list-style-type: none"> • What Comes Next? • Butterfly Number Search • Bathtime Story Board 5 or Bathtime Story Board 10 and the activities here
	2	Kid Count Number Line	Teach the entire session.	
	3	Grab Bag Five & More	Teach the entire session	
	4	Fives Up	Teach the entire session. Provide support by preteaching this skill .	
	5	Introducing Work Place 3F Fives Up	Teach the entire session.	