



GRADE 3

Unit 4 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 [Digital 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 4 Measurement & Fractions

Unit 4 develops time, mass, liquid volume, length, and fraction concepts with a variety of materials in problem-solving contexts.

- In Module 1, students focus on telling time to the nearest minute and using the number line as a model for showing and solving elapsed time problems.
- In Module 2, students add and subtract within 1,000 and solve multistep problems with measurement units.
- In Module 3, students build, compare, and investigate the relationships among unit and common fractions as parts of a whole and linear measurement. This is also developed in Number Corner Number Line activities from January through May.
- Three of the four sessions in Module 4 are optional. Creating and measuring beanstalks to make a line plot can be integrated with the arts, as time allows.

Major goals of the unit include nurturing the Standards for Mathematical Practice, telling time and solving story problems with elapsed time, solving multistep story problems, demonstrating an understanding of unit fractions, locating fractions on a number line, and recognizing equivalent fractions.

Note: Measuring mass in grams and liquid volume in liters is not a high priority for Grade 3 students this year. Therefore, those sessions can be deferred to the end of the year, as time allows. The Number Corner Calendar Collector workouts in October and December support some experiences with mass and liquid volume.

Identifying Topics for Reengagement

Depending on their experiences with the last few units in Grade 2 or the first several units in Grade 3 during school closures or other disruptions to instruction, students might need opportunities to reengage with the following topics relevant to Unit 4:

- Adding and subtracting within 1,000
- Telling time to the nearest 5 minutes
- Estimating and measuring length using inches, feet, centimeters, and meters
- Partitioning circles and rectangles into equal shares, describing the shares and recognizing that equal shares of identical wholes need not have the same shape

To assess students' current level of proficiency with some of these skills and concepts, replace the Unit 4 Pre-Assessment (Module 1 Session 1) with the Unit 4 Screener and associated Screener Implementation Guide. This short diagnostic tool will help to inform your instruction, differentiation, and possible modifications to Unit 4. In addition, use 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 4

- Focus on proficiency with telling time and length measurement to support the models and strategies needed in other number domains.
- Omit Module 1 Sessions 4–6 on measuring mass and Module 2 Sessions 1–2 on measuring liquid volume. Consider introducing Work Place 4B Scavenger Hunt in a small-group setting with materials if you have additional time. This experience includes work with liquid volume and mass.
- Fraction standards are being developed in Unit 4, but not targeted for mastery until March Number Corner Checkup 3.
- Modules 2 and 3 each include an extra session for Work Place practice and differentiation. In addition to the Work Places and practice pages, consider using selected Number Corner and Work Places from Grade 2 (listed in the planner below) to provide students “just in time” learning.
- Take an extra session to support solving two-step story problems in a measurement context.
- Provide practice with efficient, flexible, and accurate ways of adding and subtracting within 1,000 with Work Place 4C, Target One Thousand.
- Continue to use concrete materials and the [free MLC apps](#) for visual representations of time, fractions, and place value.
- Three sessions in Module 4 have been omitted or deferred to the end of the year. Line plots are not a critical area for Grade 3 students. Consider using the beanstalk sessions as an integrated art project.
- For the Unit 4 Post-Assessment, we recommend that students do only problems 4–13. They can complete 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 4–13 assess the major measurement and fraction standards (3.NF.1, 3.NF.2, 3.NF.3 and 3.MD.1) including time and length measurement and fractions as fair shares.

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 might 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 might need to teach key activities from priority workouts twice. Examples include Calendar Grid Activities 1–4 for January and 1–3 for February,

Number Line Activities 1–3 (January) and 1–4 (February), Solving Problems Activities 1–3 (January), and Calendar Collector Activities 1–2 (February).

January

- **Calendar Grid** Equivalent Fractions [Students make observations about equivalent fractions and compare different fractions of the same whole.]
- **Number Line** Benchmark Fractions on a Number Line [Students model, iterate, and compare fractions on a number line.]
- **Solving Problems** Multi-Step Problems & Equations [Students estimate a reasonable answer and work together to select and discuss equations to represent multi-step problems.]

Additional Notes

- If your students need additional practice with telling time, consider using Calendar Collector Collecting Minutes & Hours with physical models or the MLC Math Clock app.
- If your students need additional practice with these foundational facts, consider using the Scout Them Out pages from Computational Fluency as independent practice.

February

- **Calendar Grid** Investigating Area & Perimeter [Students develop strategies for calculating the area and perimeter of rectangles, and also apply formulas.]
- **Calendar Collector** Fractions of a Dollar [Students collect dimes, quarters, and half-dollars and represent the growing collection as fractions of a dollar.]
- **Number Line** Comparing Fractions [Students use the number line to iterate, compare, and explore the relationship between unit and common fractions.]

Additional Notes

- The Computational Fluency workout this month reviews multiplying by 3, 4, and 8. Depending on how your students are doing with these factors, you might want to quickly review these facts on the Multiplication Table and send the Scout Them Out pages home for extra practice.
- Students compare, construct and interpret a variety of graphs in the Solving Problems workout this month. Consider doing one or two of the activities as needed for practice.

Unit 4: Measurement & Fractions Planner

Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 1 Measuring Time & Mass	1	Unit 4 Pre-Assessment	Replace Pre-Assessment with the screener and then send students out to Work Places.	Focus <i>Telling Time (CCSS 3.MD.1)</i>
	2	Telling Time Work Place 4A Tic-Tac-Tock	Teach the entire session.	On-Grade Work Place Observations & Modifications Observe students telling time while playing WP4A Tic-Tac-Tock. Make available student clocks or the MLC Math Clock app.
	3	Time on a Number Line	Skip steps 1–5. Teach steps 6–15. Use the rest of the session for small-group instruction and differentiation.	Number Corner Workouts from Previous Grade Level G2 Number Corner: February Calendar Collector Capture the Clock
	4	Measurement—Big, Strong, Fast	Skip these sessions on measuring mass.	
	5	Measuring Mass		
	6	Estimate, Measure & Compare the Mass		
Module 2 Measuring Volume & Solving Story Problems	1	Measuring Liquid Volume	Teach steps 1–3. Use the Time Checkpoint as a formative assessment. Omit the remaining steps.	Focus <i>Length measurement (CCSS 2.MD.3, 2.MD.4)</i>
	2	Measurement Scavenger Hunt Work Place 4B Measurement Scavenger Hunt	Skip this session.	Work Places from Previous Grade Level - G2 WP4A Estimate & Measure Inches - G2 WP4C Measure & Compare - G2 WP7B Estimate & Compare Centimeters
	3A	Measurement Story Problems Work Place 4C Target One Thousand	Teach the entire session. Use Base Ten Pieces and the number line with WP 4C Target One Thousand.	Focus <i>Estimation and computation to 1,000 (3.NBT.2)</i>
	3B Insert	Work Place Practice	Use this session for small group instruction & differentiation.	On-Grade Work Place Observations & Modifications Observe students' estimation and computation skills while playing WP4C Target One Thousand. Make base ten pieces and/or the MLC Number Pieces app available.
	4	More Measurement Story Problems	Teach the entire session.	
	5	Multi-Step Measurement Problems Forum	Teach the entire session.	

Unit 4: Measurement & Fractions Planner

Module	Session	Session Title	Session Notes	Activities for Reengagement
Module 3 Fractions as Fair Shares	1	Fair Shares, Unit Fractions	Skip steps 1–3, Measurement Checkpoint. Teach steps 4–14.	Focus Fractions as parts of a whole (CCSS 2.G.3 & 3.G.2) On-Grade Work Place Observations & Modifications - Observe students while playing WP4D Hexagon Fill & Add. Make the MLC Pattern Shapes app available. Work Places from Previous Grade Level - G2 WP6E Halves & Half-Notes
	2	Comparing & Ordering Fractions	Teach the entire session.	
	3	Pattern Block Fractions Work Place 4D Hexagon Spin & Fill	Teach the entire session.	
	4A	Fractions as Distances	Teach steps 1–5, then send students to Work Places	
	4B insert	Fractions as Distances, continued	Teach Session 4 steps 6–14, then send students to Work Places	
	5	Fractions on the Number Line	Teach the entire session.	
Module 4 Fractions on a Line Plot	1	Creating & Measuring Beanstalks	Skip these sessions.	
	2	Gathering & Recording Beanstalk Data		
	3	Beanstalk Leaf Line Plots		
	4	Unit 4 Post-Assessment	Teach the entire session. Recommendation: Have all students do problems 4–13 on the post-assessment. Invite them to complete some or all of other problems as time and interest allow.	