# Unit 12 Reveal Grade 3

Content Area: **Math**
Course(s):
Time Period: **May**
Length: **3 weeks**
Status: **Published**

## Unit Overview

UNIT 12 PLANNER

### Measurement and Data

PACING: 17 days

| LESSON | MATH OBJECTIVE | LANGUAGE OBJECTIVE | SOCIAL AND EMOTIONAL LEARNING OBJECTIVE | LESSON | KEY VOCABULARY |
|---|---|---|---|---|---|
| **Unit Opener** Comparing Buildings Students explore different ways to measure and compare the heights of buildings. | | | | | |
| | | | | | Math Terms |
| 12-1 Measure Liquid Volume | Students measure liquid volume in milliliters and liters. | Students express a precise measurement of liquid by using *liters* and *milliliters*. | Students discuss and practice strategies for managing stressful situations. | 12-1 | liquid volume<br>liter (L)<br>milliliter (mL) |
| 12-2 Estimate and Solve Problems with Liquid Volume | Students estimate liquid volumes in milliliters and liters.<br>Students solve word problems involving liquid volume. | Students use the word *about* to give an estimate of liquid volume. | Students recognize personal strengths through thoughtful self-reflection. | 12-2 | estimate<br>liquid volume<br>liter (L)<br>milliliter (mL) |
| 12-3 Measure Mass | Students measure mass in grams and kilograms. | Students introduce a solution to a word problem using *so*. | Students recognize and work to understand the emotions of others and practice empathetic responses. | 12-3 | balance scale<br>gram (g)<br>kilogram (kg)<br>mass |
| 12-4 Estimate and Solve Problems with Mass | Students estimate mass in grams and kilograms.<br>Students solve word problems involving mass. | Students articulate a conclusion about the mass of an object using *so*. | Students set a focused mathematical goal and make a plan for achieving that goal. | 12-4 | gram (g)<br>kilogram (kg)<br>mass |
| 12-5 Tell Time to the Nearest Minute | Students tell and write time to the nearest minute. | Students tell time on an analog clock using the terms *before* and *past*. | Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others. | 12-5 | analog clock<br>digital clock |
| 12-6 Solve Problems Involving Time | Students solve word problems involving time intervals. | Students express times shown on an analog clock by using *hours* and *exact minutes*. | Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors. | 12-6 | number line |
| 12-7 Understand Scaled Picture Graphs | Students create scaled picture graphs. | Students describe the scale of a picture graph by using the verb *represents*. | Students exchange ideas for mathematical problem-solving with a peer, listening attentively and providing thoughtful and constructive feedback. | 12-7 | key<br>picture graph<br>scale |
| 12-8 Understand Scaled Bar Graphs | Students create scaled bar graphs. | Students express the values used to scale a graph by using the term *each*. | Students set learning goals and initiate work on tasks to accomplish their goals. | 12-8 | bar graph<br>scale |
| 12-9 Solve Problems Involving Scaled Graphs | Students solve problems using scaled graphs. | Students interpret data on a bar graph by using the expression *more than*. | Students identify a problem, use creativity to execute problem-solving steps, and identify multiple solutions. | 12-9 | bar graph<br>picture graph |
| 12-10 Measure to Halves or Fourths of an Inch | Students measure objects to the nearest half and quarter inch. | Students articulate two possible measurements, one estimated and one precise, by using *or*. | Students identify personal traits that make them good students, peers, and math learners. | 12-10 | ruler |
| **Math Probe** Measuring Length Students find the length of a line segment and determine whether statements about the measurement are true or false. | | | | | |
| 12-11 Show Measurement Data on a Line Plot | Students generate measurement data and create line plots to display the data. | Students describe a tally on a line plot by using the expression *the number of*. | Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal. | 12-11 | line plot |
| **Unit Review**<br>**Fluency Practice** | | | | | |
| **Performance Task**<br>**Unit Assessment** | | | | | |



## Enduring Understandings

See Above

## Essential Questions

See Above

## Instructional Strategies and Learning Activities

LESSON 12-1

# Measure Liquid Volume

### Learning Targets

- I can measure liquid volume in milliliters and liters.
- I can explain how to measure liquid volume in milliliters and liters.

### Standards ◆ Major ▲ Supporting ● Additional

**Content**

◇ **3.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**Math Practices and Processes**

**MPP** Use appropriate tools strategically.

### Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students measure liquid volume in milliliters and liters. | • Students express a precise measurement of liquid by using liters and milliliters.<br>• To cultivate conversation, use MLR8: Discussion Supports. | • Students discuss and practice strategies for managing stressful situations. |

### Coherence

| Previous | Now | Next |
|---|---|---|
| • Students measured the length of objects using units of inches, feet, centimeters, and meters (Grade 2). | • Students apply an understanding of measurement to measure liquid volume. | • Students estimate liquid volumes in milliliters and liters (Unit 12).<br>• Students solve word problems involving liquid volumes and the four operations (Grade 4). |

### Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students develop an understanding of how to measure liquid volume. | • Students build fluency with liquid volume by measuring liquid volume in milliliters and liters. | • Students apply their understanding of liquid volume to compare measurements and solve real-world problems.<br>*Application is not a targeted element of rigor for this standard.* |

LESSON 12-2

# Estimate and Solve Problems with Liquid Volume

## Learning Targets

- I can estimate liquid volume and solve problems involving liquid volume.
- I can explain how to estimate liquid volume and solve problems involving liquid volume.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

◇ **3.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**Math Practices and Processes**

**MPP** Model with mathematics.

## Vocab

**Math Term**

estimate

liquid volum

liter (L)

milliliter (mL

## Materi

The material

of the lesson

- everyday
  (1 L, 500
- metric me
- water

## Focus

| Content Objectives | Language Objectives | SEL Objective |
|---|---|---|
| • Students estimate liquid volume in milliliters and liters.<br>• Students solve word problems involving liquid volume. | • Students use the word *about* to give an estimate of liquid volume.<br>• To support sense-making, use MLR6: Three Reads. | • Students recognize personal strengths through thoughtful self-reflection. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students used addition and subtraction to solve measurement problems (Grade 2).<br>• Students measured liquid volume (Unit 12). | • Students estimate liquid volume in liters and milliliters.<br>• Students solve word problems involving liquid volume. | • Students estimate and solve problems involving mass (Unit 12).<br>• Students convert larger units of measurement into smaller units (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students build on their understanding of liquid volume to identify objects that can be used to estimate the liquid volume of other objects. | • Students use different strategies to estimate liquid volume. | • Students use all four operations to solve real-world problems involving liquid volume. |

## Numb

## Where

5–7 min

Build Fluen

sense as the

the same fra

number lines

These promp

talk about th

- How did
  place th
  number
- How did
  each nu
  location
- Who tho
  differen

LESSON 12-3

# Measure Mass

## Learning Targets

- I can measure mass in grams and kilograms.
- I can explain how to measure mass in grams and kilograms.

## Standards ◇ Major ▲ Supporting ○ Additional

**Content**

◇ **3.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**Math Practices and Processes**

**MPP** Reason abstractly and quantitatively.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students measure mass in grams and kilograms. | • Students introduce a solution to a word problem using so.<br>• To cultivate conversation, use MLR5: Co-Craft Questions. | • Students recognize and work to understand the emotions of others and practice empathetic responses. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students learned to measure lengths using metric units (Grade 2).<br>• Students learned to solve problems with liquid volume in metric units (Unit 12). | • Students use a balance scale to measure mass in grams and kilograms.<br>• Students explain how to solve problems with mass. | • Students use estimation to solve problems with mass (Unit 12).<br>• Students relate metric units (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students develop an understanding of mass as a measurable property. | • Students use a balance scale and metric units in grams and kilograms to find the mass of objects. | • Students apply what they have learned about measuring mass in grams and kilograms to solve real-world problems. |

LESSON 12-4

# Estimate and Solve Problems with Mass

## Learning Targets

- I can estimate mass and solve problems with mass.
- I can explain how to estimate mass and solve problems with mass.

## Standards ◇ Major ▲ Supporting ○ Additional

**Content**

◇ **3.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**Math Practices and Processes**

**MPP** Use appropriate tools strategically.

## Focus

| Content Objectives | Language Objectives | SEL Objective |
|---|---|---|
| • Students estimate mass in grams and kilograms.<br>• Students solve word problems involving mass. | • Students articulate a conclusion about the mass of an object using so.<br>• To maximize linguistic and cognitive meta-awareness, use MLR2: Collect and Display. | • Students set a focused mathematical goal and make a plan for achieving that goal. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students learned to measure lengths by using metric units (Grade 2).<br>• Students learned to measure mass in grams and kilograms (Unit 12). | • Students use the mass of everyday items to estimate mass.<br>• Students write equations and use strategies to solve word problems involving mass. | • Students use estimation to solve problems with time (Unit 12).<br>• Students relate metric units (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students develop an understanding of how to use the mass of everyday objects to estimate the mass of other objects. | • Students develop proficiency with estimating the mass of objects in grams and kilograms. | • Students apply what they have learned about estimating mass in grams and kilograms to solve real-world problems. |

LESSON 12-5

# Tell Time to the Nearest Minute

## Learning Targets

- I can tell time to the nearest minute.
- I can explain how to tell time to the nearest minute.

## Standards ◇ Major △ Supporting ○ Additional

**Content**

◇ **3.MD.A.1** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

**Math Practices and Processes**

**MPP** Model with mathematics.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students tell and write time to the nearest minute. | • Students tell time on an analog clock by using the terms *before* and *past*.<br>• To maximize linguistic and cognitive meta-awareness, use MLR8: Discussion Supports. | • Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students identified and wrote time in hours and half hours (Grade 1).<br>• Students understood time to the nearest 5 minutes on analog and digital clocks (Grade 2). | • Students tell and write the time to the exact minute shown on analog and digital clocks. | • Students extend their understanding of clock reading to solve problems involving time intervals (Unit 12).<br>• Students convert units of time, build understanding of elapsed time, and solve word problems involving intervals of time (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students build on their understanding of telling time by examining and interpreting the time shown on analog and digital clocks to the nearest minute. | • Students strengthen their proficiency with clock reading by telling time to the nearest minute. | • Students apply their knowledge of telling time to the nearest minute to solve real-world problems. |

LESSON 12-6

# Solve Problems Involving Time

## Learning Targets

- I can solve problems involving time intervals.
- I can explain how to solve problems involving time intervals.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

◇ **3.MD.A.1** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

**Math Practices and Processes**

**MPP** Reason abstractly and quantitatively.

**MPP** Model with mathematics.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students solve word problems involving time intervals. | • Students express times shown on an analog clock by using hours and exact minutes.<br>• To maximize linguistic and cognitive awareness, use MLR6: Three Reads. | • Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students explored telling time to the nearest 5 minutes (Grade 2).<br>• Students practiced telling time to the nearest minute (Unit 12). | • Students solve problems involving time intervals. | • Students solve problems with time intervals by using all four operations (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students understand that time can be measured in intervals. | • Students build fluency in working with time intervals, clock reading, and number lines. | • Students apply their understanding of telling time by solving contextual problems using various representations. |

LESSON 12-7

# Understand Scaled Picture Graphs

## Learning Targets

- I can interpret data in a scaled picture graph.
- I can draw a scaled picture graph to represent a data set.

## Standards ◆ Major △ Supporting ○ Additional

**Content**

△ **3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

**Math Practices and Processes**

**MPP** Attend to precision.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students create scaled picture graphs. | • Students describe the scale of a picture graph by using the verb *represents*.<br>• To support sense-making, use MLR4: Information Gap. | • Students exchange ideas for mathematical problem-solving with a peer, listening attentively and providing thoughtful and constructive feedback. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students learned to understand picture graphs and bar graphs to represent data sets (Grade 2).<br>• Students learned to multiply and divide fluently within 100 (Unit 9). | • Students create scaled picture graphs by using a scale to show a picture equal to more than one data point. | • Students solve problems involving scaled graphs (Unit 12).<br>• Students solve problems involving data on a line plot (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students build on their understanding of picture graphs by creating scaled picture graphs.<br>*Conceptual understanding is not a targeted element of rigor for this standard.* | • Students develop proficiency interpreting and creating scaled picture graphs. | • Students apply what they have learned about scaled picture graphs to solve real-world problems. |

LESSON 12-8

# Understand Scaled Bar Graphs

## Learning Targets

- I can draw a scaled bar graph to represent a data set.
- I can describe how to draw a scaled bar graph to represent a data set.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

▲ **3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a scaled bar graph in which each square in the bar graph might represent 5 pets.*

**Math Practices and Processes**

**MPP** Reason abstractly and quantitatively.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students create scaled bar graphs. | • Students express the values used to scale a graph by using the term *each*.<br>• To support sense-making, use MLR8: Discussion Supports. | • Students set learning goals and initiate work on tasks to accomplish their goals. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students created and analyzed bar graphs with single-unit scales (Grade 2).<br>• Students created and analyzed scaled picture graphs (Unit 12). | • Students draw and describe scaled bar graphs. | • Students solve problems involving scaled bar graphs (Unit 12).<br>• Students display and interpret data on line plots (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students understand how a scaled bar graph can represent a set of data.<br>*Conceptual understanding is not a targeted element of rigor for this standard.* | • Students learn how to draw scaled bar graphs and determine an appropriate scale for their graphs. | • Students apply their understanding of scaled bar graphs to represent real-world data. |

LESSON 12-9

# Solve Problems Involving Scaled Graphs

## Learning Targets

- I can solve problems involving scaled graphs.
- I can explain how to solve problems involving scaled graphs.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

▲ **3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

**Math Practices and Processes**

**MPP** Attend to precision.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students solve problems using scaled graphs. | • Students interpret the data on a bar graph by using the expression *more than*.<br>• To optimize output, use MLR3: Critique, Correct, and Clarify. | • Students identify a problem, use creativity to execute problem-solving steps, and identify multiple solutions. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students solved problems involving picture graphs and bar graphs (Grade 2).<br>• Students created and analyzed scaled picture graphs and scaled bar graphs (Unit 12). | • Students solve one- and two-step word problems involving scaled bar graphs and scaled picture graphs. | • Students generate data by measuring length to halves and fourths of an inch (Unit 12). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students use an understanding of scaled graphs to help make sense of the relationship between the values given in real-world problems. | • Students build fluency in solving one- and two-step word problems involving scaled graphs.<br>*Procedural skill and fluency is not a targeted element of rigor for this standard.* | • Students apply their knowledge of interpreting data sets using picture graphs and scaled bar graphs to solve one- and two-step real-world problems. |

LESSON 12-10

# Measure to Halves or Fourths of an Inch

## Learning Targets

- I can measure to the nearest half and fourth of an inch.
- I can explain how to measure to the nearest half and fourth of an inch.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

▲ **3.MD.B.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

**Math Practices and Processes**

**MPP** Attend to precision.

## Focus

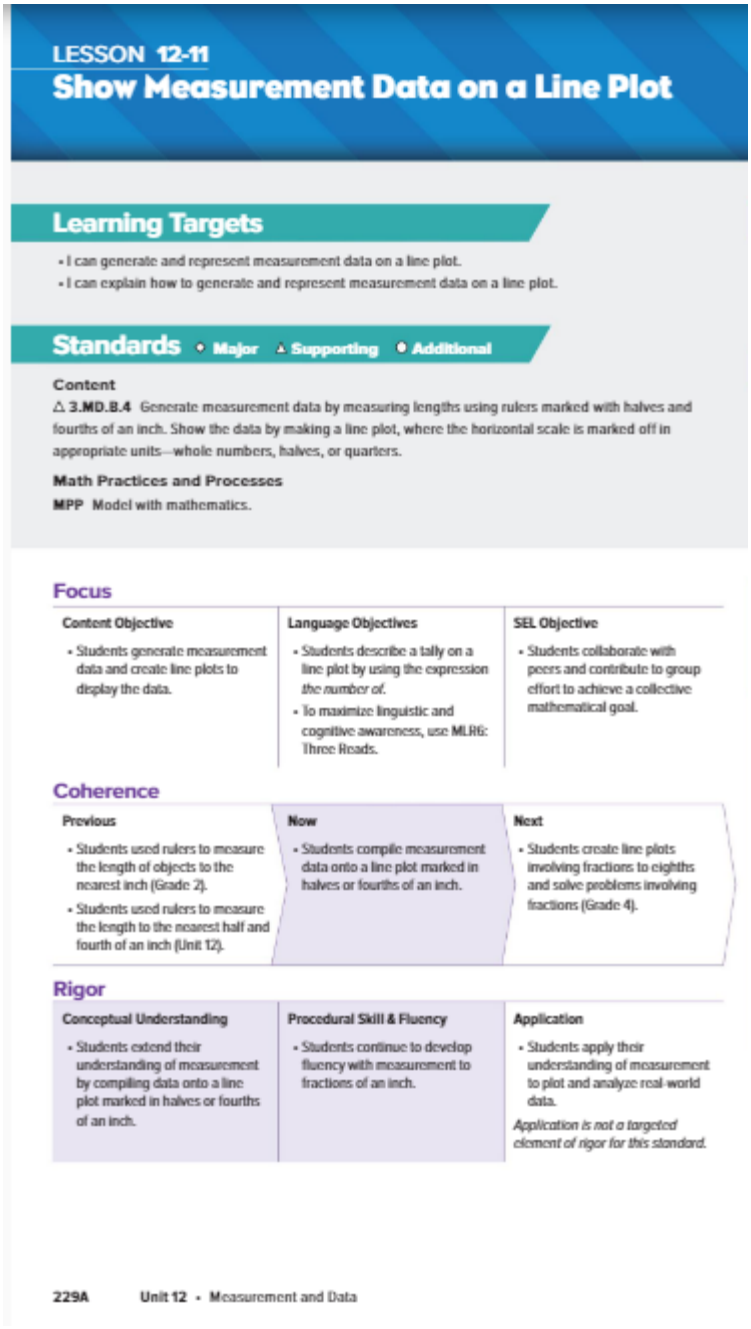
| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students measure objects to the nearest half and quarter inch. | • Students articulate two possible measurements, one estimated and one precise, by using or.<br>• To support sense-making, use MLR7: Compare and Connect. | • Students identify personal traits that make them good students, peers, and math learners. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students used rulers to measure the length of an object to the nearest inch (Grade 2).<br>• Students represented fractions on a number line (Unit 7). | • Students use rulers to measure the length of an object to the nearest half or fourth of an inch. | • Students generate measurement data by measuring to the nearest half or fourth of an inch and represent the data on a line plot (Unit 12).<br>• Students make a line plot to display a set of measurements to the nearest eighth, fourth, and half inch (Grade 4). |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students develop an understanding of length in fractions of a unit by relating it to their understanding of fractions on a number line. | • Students use a ruler to find the tick mark for a half or fourth of an inch that is closest to the end of an object. | • Students measure real-world objects to the nearest half or fourth of an inch.<br>*Application is not a targeted element of rigor for this standard.* |



LESSON 12-11

## Show Measurement Data on a Line Plot

### Learning Targets

- I can generate and represent measurement data on a line plot.
- I can explain how to generate and represent measurement data on a line plot.

### Standards ○ Major △ Supporting ◇ Additional

**Content**

△ **3.MD.B.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

**Math Practices and Processes**

**MPP** Model with mathematics.

### Focus

**Content Objective**

- Students generate measurement data and create line plots to display the data.

**Language Objectives**

- Students describe a tally on a line plot by using the expression *the number of*.
- To maximize linguistic and cognitive awareness, use MLR6: Three Reads.

**SEL Objective**

- Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.

### Coherence

**Previous**

- Students used rulers to measure the length of objects to the nearest inch (Grade 2).
- Students used rulers to measure the length to the nearest half and fourth of an inch (Unit 12).

**Now**

- Students compile measurement data onto a line plot marked in halves or fourths of an inch.

**Next**

- Students create line plots involving fractions to eighths and solve problems involving fractions (Grade 4).

### Rigor

**Conceptual Understanding**

- Students extend their understanding of measurement by compiling data onto a line plot marked in halves or fourths of an inch.

**Procedural Skill & Fluency**

- Students continue to develop fluency with measurement to fractions of an inch.

**Application**

- Students apply their understanding of measurement to plot and analyze real-world data.

*Application is not a targeted element of rigor for this standard.*



## Integration of Career Readiness, Life Literacies and Key Skills

| | |
|---|---|
| 9.1.2.CR.1 | Recognize ways to volunteer in the classroom, school and community. |
| 9.4.2.CI.1 | Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). |
| 9.4.2.CI.2 | Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a). |
| 9.1.2.CR.2 | List ways to give back, including making donations, volunteering, and starting a business. |
| 9.1.2. FI.1 | Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards). |

| | |
|---|---|
| 9.4.2.CT.2 | Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3). |
| 9.4.2.CT.3 | Use a variety of types of thinking to solve problems (e.g., inductive, deductive). |
| 9.1.2.FP.1 | Explain how emotions influence whether a person spends or saves. |
| 9.1.2.FP.3 | Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society). |
| 9.4.2.DC.3 | Explain how to be safe online and follow safe practices when using the internet (e.g., 8.1.2.NI.3, 8.1.2.NI.4). |
| 9.1.2.PB.1 | Determine various ways to save and places in the local community that help people save and accumulate money over time. |
| 9.1.2.PB.2 | Explain why an individual would choose to save money. |
| 9.4.2.DC.6 | Identify respectful and responsible ways to communicate in digital environments. |
| 9.4.2.DC.7 | Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1). |
| 9.4.2.TL.2 | Create a document using a word processing application. |
| 9.4.2.TL.5 | Describe the difference between real and virtual experiences. |
| 9.4.2.TL.6 | Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.). |
| 9.4.2.TL.7 | Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2). |

## Technology and Design Integration

| | |
|---|---|
| 8.1.2.CS.1 | Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. |
| 8.1.2.DA.1 | Collect and present data, including climate change data, in various visual formats. |
| 8.1.2.DA.3 | Identify and describe patterns in data visualizations. |
| 8.1.2.DA.4 | Make predictions based on data using charts or graphs. |
| 8.1.2.AP.4 | Break down a task into a sequence of steps. |
| 8.1.2.AP.5 | Describe a program’s sequence of events, goals, and expected outcomes. |
| 8.2.2.ITH.4 | Identify how various tools reduce work and improve daily tasks. |

## Interdisciplinary Connections

| | |
|---|---|
| LA.RI.3.1 | Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. |
| LA.RI.3.2 | Determine the main idea of a text; recount the key details and explain how they support the main idea. |
| LA.RI.3.3 | Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. |
| LA.RI.3.4 | Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area. |
| LA.RI.3.5 | Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. |
| LA.RI.3.6 | Distinguish their own point of view from that of the author of a text. |

| | |
|---|---|
| LA.RI.3.8 | Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence) to support specific points the author makes in a text. |
| LA.RI.3.9 | Compare, contrast and reflect on (e.g., practical knowledge, historical/cultural context, and background knowledge) the most important points and key details presented in two texts on the same topic. |
| LA.RI.3.10 | By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed. |
| LA.W.3.4 | With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.) |
| LA.SL.3.1 | Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. |
| LA.L.3.1 | Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. |

## Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.

- **Definitions of Differentiation Components**:

    - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
    - Process – how the student will acquire the content information.
    - Product – how the student will demonstrate understanding of the content.
    - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

**Differentiation occurring in this unit:**




-

## Modifications and Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMOCATIONS spreadsheet in this discipline.

**Modifications and Accommodations used in this unit:**

## Benchmark Assessments

**Benchmark Assessments** are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

**Schoolwide Benchmark assessments:**

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

**Additional Benchmarks used in this unit:**

Reveal Unit assessments

## Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

**Formative Assessments used in this unit:**

Teacher observation

Checklists

Questioning and Discussion

Quizzes

## Summative Assessments

**summative assessments** evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

**Summative assessments for this unit:**

End of Unit assessments

## Instructional Materials

See above

## Standards

| | |
|---|---|
| 3.M.A.1 | Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. |
| 3.M.A.2 | Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. |
| 3.DL.B.3 | Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. |
| 3.DL.B.4 | Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters. |