

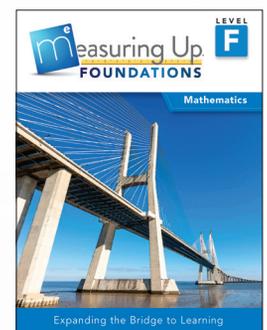
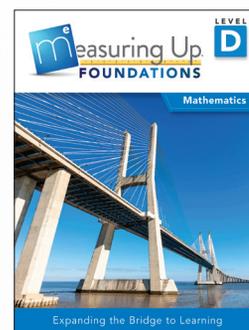
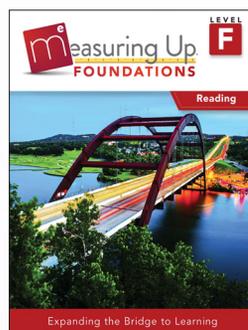
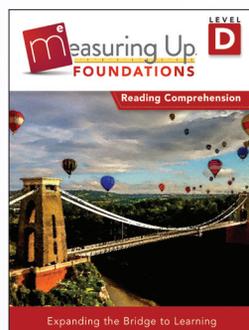
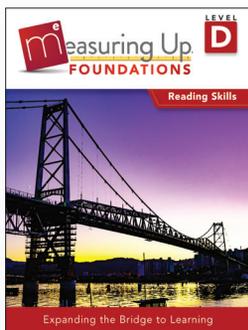


Reinforce Accelerated Learning with Unparalleled Teacher Support

- Reading Skills
- Reading Comprehension
- Mathematics



Focus on essential skills in reading and mathematics for students who need to master critical foundational skills to become successful with on-grade-level standards. Close learning gaps to help students bridge to grade-level learning.



Measuring Up Foundations addresses learning gaps with a focused approach to teaching and learning foundational skills.

Prerequisite skills aligned to grade level standards

Components include:

- Full-color **Student Worktext**.
- Digital **Assessments** customized to program (pre-, post-, and chapter tests).
- **Teacher's Manual** with explicit instructional support for every lesson.

Aligned to the Grade-Level Standards

Lesson features:

- Research-based lessons with purposeful lesson design prevents overwhelming struggling students.
- An emphasis on vocabulary and setting learning goals.
- Formative assessment with two levels of independent practice and an end-of-lesson activity.

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Research-Based Programs Yield Results

Measuring Up Foundations embraces the cognitive theory of reducing the complexity of new learning and other proven strategies.

Measuring Up Foundations puts brain-based research into action with these key strategies.

- Instruction is clear.
- Instruction is focused.
- Examples are relevant.
- New learning is segmented.
- All learning is connected.
- Learning is scaffolded.
- Thinking time is incorporated.
- Strategies are varied.
- Assessment informs instruction.

References

- ¹ Mayer & Moreno (2003). Nine Ways to Reduce Cognitive Load in Multimedia Learning. *Educational Psychologist*, 38(1), 43–52.
- ² National Research Council (2000, p. 236). Cited in Lent, ReLeah Cossett. *Overcoming Textbook Fatigue*.
- ³ Cowan, N. (2014). Working Memory Underpins Cognitive Development, Learning, and Education. *Educational Psychology Review* 26, 197–223. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4207727/>
- ⁴ SIOP. Retrieved from www.cal.org/siop

RESEARCH

Building a Program on Research Yields Results

Measuring Up Foundations incorporates brain-based research that has been shown to be effective for students who struggle or who are learning English. For many students, learning to read or think mathematically is a complex process. Therefore, *Measuring Up Foundations* embraces the cognitive theory of reducing complexity of new learning and other proven strategies.

What the Research Says	How <i>Measuring Up Foundations</i> Addresses It
Instruction is clear. Instruction is clearly articulated and made understandable for every student.	Every lesson focuses on a single foundational skill. Instructions are simple and to-the-point.
Instruction is focused. Mayer & Moreno (2003) suggest keeping instruction simple and clear by removing any extraneous information or clutter no matter how interesting. In an approach they call “weeding,” anything that may cause a distraction should be eliminated. This includes removing information that may be interesting, but unimportant. ¹	Student Edition pages are uncluttered and presented with plenty of white space to eliminate distractions. Illustrations and diagrams are relevant and presented with the singular purpose of assisting learning.
Examples are relevant. Helping students make connections to information or skills they already possess is critical to learning. “All learning involves transfer from previous experiences. Even initial learning involves transfer that is based on previous experiences and prior knowledge” (National Research Council 2000, p. 236). ²	Student-friendly examples and situations are presented as a way to make skills more relevant and purposeful. They relate experiences and/or prior learning to connect new knowledge to know.
Break new learning into manageable parts. According to Cowan (2014), segmenting new skills and standards into manageable parts is an effective way to free up working memory. ³	Break Down the Skills is a critical component of every lesson introduction. Standards are strategically divided in order to simplify complexity.
Learning is scaffolded. Providing support to keep learning on track is essential to learning foundational skills. Using a Gradual Release of Responsibility Model “ensures that students are supported in their acquisition of the skills and strategies necessary for success.”	Scaffolded support such as guidance in the Teacher’s Manual as well as hints, tips, and strategically placed thinking questions are found throughout every lesson. Measure Kids are used as an engaging way to provide support and keep students on track.
Thinking time is incorporated. Thinking questions are strategically placed throughout the lesson to aid learning and focus students’ attention. ⁴	Questions strategically placed throughout the lessons are designed to develop the habit of think about, write about, and discuss selections.

What the Research Says	How <i>Measuring Up Foundations</i> Addresses It
Strategies are varied. A variety of strategies are used to make instruction explicit, to encourage high-level thinking, and to promote language acquisition. (SIOP Principal 4) ⁴	A variety of strategies are incorporated into every lesson to promote understanding. The Teacher’s Manual includes specific directions for differentiating instruction for students who are acquiring English.
Assessment informs instruction. Ongoing review, practice, and assessment need to be in place to ensure students’ goals are being met by adjusting instruction and pacing. (SIOP Principal 8) ⁴	<i>Measuring Up Foundations</i> is fully supported by <i>Measuring Up Live 2.0 Insight</i> for online assessment. Reports provide actionable data for grouping, reteaching, and other instructional decisions. Additionally, lessons incorporate multiple assessment opportunities such as independent practice items and an Exit Ticket at the end of every lesson.

Implement with Fidelity

Uses the four-part lesson framework—noted for closing gaps and accelerating learning. The proven framework incorporates research-based practices for consistent implementation and pacing.

Assessment Matters

Monitor learning to adjust instruction and measure growth.

- Custom assessments delivered via *Measuring Up Live* include pre-, post-, and chapter tests.
- Reports measure growth, identify strengths and weaknesses, and support data-led instruction.

Flexibility Is Key to Implementation

Using lessons in any order as needed supports use in diverse implementation models.

- **Classroom Instruction**

Use with whole-class or small group instruction to introduce skills, support the current instructional program, provide a focused review, and for remediation.

- **Intervention Services—Push-in or Pull-out**

Provide explicit instruction of foundational skills for students who struggle with grade-level learning. The flexible organization provides congruency with mainstream classroom instruction.

- **Extended Learning Programs**

Engage students with essential skill mastery to bridge to grade-level learning.

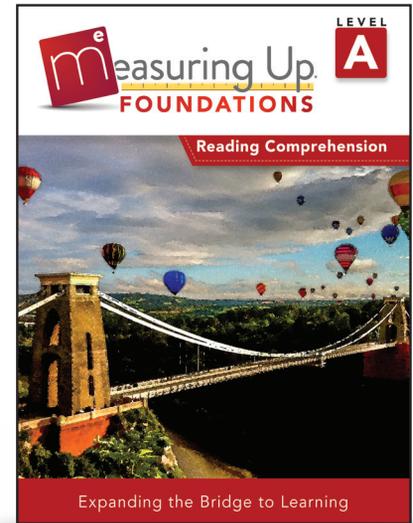
Student Edition

Reading Comprehension

The four-part lesson plans encompass the research-based components required for intense instruction.

Accelerate achievement with:

- Single skill focused lessons with explicit instruction.
- Reduced complexity of skill and task, aligned to grade-level standards.
- Scaffolded support.
- Differentiated instruction.
- Assessments to monitor learning.



The clean page layout eliminates distractions.

Strategically placed thinking questions focus learning.

Examples and illustrations support and clarify meaning.

Lesson 3 Characters, Settings, and Events

Introduction
What Will I Learn?

- Who are the characters in a story?
- What is the setting?
- What are the key details and events?

When you read a story, look for the characters, setting, and key events.



Break Down the Skills

Stories have **characters**. Characters can be people, animals, or even things. A character can speak, feel, or act.

The **setting** is where the story takes place. Sometimes there is more than one setting.

The **events** are the things that happen. They are what the story is about.

When you read, ask yourself these questions.

- **Who** is in the story?
- **Where** does the story take place?
- **What** happens in the story?

Ask yourself these 3 questions.



Who? Where? What?

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Chapter 1 • Reading Literature

Guided Instruction

Hide and Seek

Bill loves to play hide and seek.
He plays it with his sisters.
They play in the house.
Bill covers his eyes.
He counts, 1, 2, 3. . .
Sara hides in a big box.
Lisa hides behind the sofa.
Can Bill find them?

1 Match the character with the event.

Lisa	covers eyes and counts
Sara	hides behind the sofa
Bill	hides in a big box



2 What event will happen next in this story?

- A** Sara will cover her eyes.
- B** Lisa will cover her eyes.
- C** Bill will look for his sisters.

Guided Reading

How many characters are in this story?

Who is the story about? Circle the characters.

Where does the story take place? Underline it.

Circle the event.

Copying is prohibited. Measuring Up Foundations • Reading Comprehension 17

Set clear learning goals and activate background knowledge.

Provide context for new learning and academic vocabulary.

Independent Practice

Little Fox



Little Fox went out to play.
 He could hear the chickens.
 He could smell the chickens.
 "I want to see the chickens," said Little Fox.
 "I will not hurt them."
 Little Fox ran away.
 He ran up a hill.
 He ran down a hill.

Who is this story about?



Where does this story take place?



The chickens were in a pen.
 Little Fox could see them now.
 "I will not hurt you," he told the chickens.
 The chickens clucked and clucked.
 A dog ran up.
 "Go away, Little Fox," barked the dog.
 Little Fox ran up the hill.
 He ran down the hill.
 He ran all the way home.

What events happen?



Practice 2

- 1 What is the setting?
 A in the house
 B outside
 C in a barn

- 2 Why do you think Little Fox runs all the way home?

- 3 What do you think _____

Practice 1

- 1 Circle the characters in the story.
- 2 What happens in this story? Match the character with the action.

the dog	cluck
Little Fox	barks and runs
the chickens	goes out to play

- 3 Number the events in the order they happened.

- A dog ran up.
- The chickens clucked.
- Little Fox went out to play.

Think about what happened **first**. What happened **next**? What happened **last**?



Exit Ticket

Number the events in the order in which they happen. The first event is marked for you.

- A dog ran up.
- Little Fox ran all the way home.
- Little Fox could smell the chickens.
- The chickens clucked and clucked.
- 1 Little Fox went out to play.

Measure Kids provide hints, tips, and guidance to keep learners engaged.

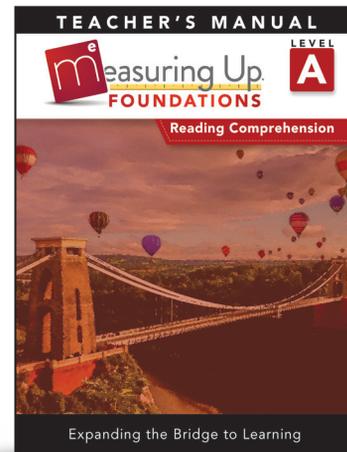
Varied question types allow students to interact with skills in multiple ways.

Exit Ticket offers a quick check of understanding.

Unparalleled Teacher Support

Reading Comprehension

The Teacher's Manual provides a comprehensive approach to instruction with an easy-to-use lesson format allowing for customized and differentiated instruction for struggling students and English learners.



TEACHER GUIDE

Lesson 3 Characters, Settings, and Events

At-a-Glance

Learning Objectives	Why Students May Struggle											
<ul style="list-style-type: none"> Identify characters in a story. Identify the setting(s). Identify events and key details. 	Students may struggle with sequencing events in the story as they occur.											
Academic Vocabulary	Passage Information											
<table border="1"> <tr> <td>character</td> <td>setting</td> <td>event</td> </tr> </table>	character	setting	event	<table border="1"> <tr> <td>Hide and Seek</td> <td>Word Count: 44</td> </tr> <tr> <td>Reading Level: 10-200L</td> <td></td> </tr> <tr> <td>Little Fox</td> <td>Word Count: 98</td> </tr> <tr> <td>Reading Level: 10-200L</td> <td></td> </tr> </table>	Hide and Seek	Word Count: 44	Reading Level: 10-200L		Little Fox	Word Count: 98	Reading Level: 10-200L	
character	setting	event										
Hide and Seek	Word Count: 44											
Reading Level: 10-200L												
Little Fox	Word Count: 98											
Reading Level: 10-200L												

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Allow students to be the storytellers. Ask a student volunteer to tell a familiar story in his or her own words. A fairy tale such as "The Three Little Pigs" is a good choice or another story most of the children are likely to know. This activity will not only activate their prior knowledge of the parts of a story, but will also introduce them to storytelling and to communication through storytelling. It also gives the other students the opportunity to connect to a story by hearing a peer tell it. It is a good way to introduce the skill and engages students and gets them interested in storytelling and reading stories before starting the lesson.
- Facilitate the student's storytelling by guiding the student through the story and pausing briefly to ask questions such as "Who is in this story?" and "Where is this story taking place?" and "What happens next?" When the student is done, ask the other students to summarize what they heard and ask them the same questions to retell. Focus the students on what happens in the beginning, middle, and end events to help them understand story structure.

EXPLICIT INSTRUCTION

- Write the words "characters," "setting," and "events" on the board. Tell students they will learn the following through the stories they will hear in the lesson.
 - Who are the characters in a story?
 - What is the story's setting?
 - What are the main events?



Quick view of lesson makes planning easy.

Set learning goals and foster meaningful connections to new learning.

Chapter 1 • Reading Literature

- Under each word, ask the students to recap the characters, the setting, and events in the story they just heard. Here is an example using "The Three Little Pigs."

Characters	Setting	Events
Three pigs	house made of straw	Each pig builds a house.
A wolf	house made of sticks	The wolf goes to each house to try to get in...
	house made of bricks	

- Tell students that as they listen to the stories you read, focus on the characters, setting, and key events.

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Review the vocabulary words with students. Explain that stories have **characters**. Characters can be people, animals, or even things. A character can speak, feel, or act.
- The story's **setting** is where the story takes place. Explain that some stories have several settings, such as "The Three Little Pigs."
- Explain to students that the **events** are the things that happen in the story. They are what the story is about. Explain that stories have beginnings, middles, and ends.
- To identify the characters, setting, and events, tell students to ask these three questions. *Who? Where? What?*
 - Who is in the story?
 - Where does the story take place?
 - What happens in the story?
- If time allows, have students complete the On Your Own chart at the end of these notes.

Differentiate for Struggling Readers

A story map is a visual representation of the parts of a story. A map can help students focus on the important parts: the characters, setting, and plot events. Have struggling students create story maps, sketching the characters, setting, and main events of the story, especially the beginning, middle, and end. Have them each then retell the story to a partner or a group, using their story maps to guide them.

Differentiate for English Learners

Storytelling does not always need words. Stories can be told through pictures or illustrations. Show students a sequence of pictures illustrating a particular event and have students write the text that would go with each picture. This is especially helpful for students who have difficulty writing but who are able to tell a story orally. English learners can also create abbreviated story maps, sketching the characters, setting, and just one main event in the story.

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In Mathematics, error analysis provides an insight into areas of learning difficulties.

Suggestions are provided for students who exhibit common errors.

Full-support, front-loading, and content-specific vocabulary.

Strategies are provided to address the specific needs of struggling students and English learners.

Two sets of practice questions provide instructional options for supported and independent practice.

Additional teaching support for students who continue to struggle is provided at the end of every lesson.

Help English learners with language frames and strategies to develop oral language proficiency.

Support learning with graphic organizers. Reproducible masters in every lesson aid mastery and foster the transfer of skills across the curriculum.

Lesson 3 • Characters, Settings, and Events

EXIT TICKET

- Have students fill in the Exit Ticket. Tell them to read the events in the boxes on the right and then number them on the left in the order as they happened in the story. Tell them the first one is done for them.



ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- Give students a short story at their reading level, and have them do a simple retelling, identifying in their retelling the characters; the setting; and the beginning, middle, and end of the story in order.
- Have students summarize key events of "Little Fox" to each other or in a group.
- Have students make character posters, depicting the characters as they envision them.
- Have students create a "setting" poster of their favorite place.

SUPPORT FOR ENGLISH LANGUAGE LEARNERS

- Read a short story to students and have them draw story maps, including characters, setting, and one or two events from the story.
- Have students create a story by sketching a sequence map of events in the story, *without any writing*. This is helpful for students who have difficulty writing but who are able to tell a story visually. When they are done, if they are able, have them tell their stories orally to the class or in small groups.
- Have students draw a picture of their favorite character from the story.
- Give English language learners a story to read. One character is the fox. In the story...

20

Lesson 3 Copy Master

Name _____ Date _____

On Your Own

Story Title _____

Characters	Setting
Event 1	Event 2
Event 3	Event 4

22 Level A

Lesson 3 • Characters, Settings, and Events

GUIDED INSTRUCTION

First Read

- Direct students to follow along as you read the passage "Hide and Seek" aloud. Tell them to listen for character names, where the event is taking place, and what is the event.

Second Read

- Using the choral reading approach, reread the passage "Hide and Seek" aloud. Have students follow along reading in unison as they are able. Allow students to use a marker or card to track the text if needed.

Guided Reading Questions

- Read the Guided Reading Questions aloud and have students answer them. Discuss the answers orally.
- After the students have completed the questions, recap by asking them the following questions.
 - What event happens in the beginning? (The children start to play hide and seek; Bill covers his eyes.)
 - What event happens in the middle of the story? (Sara and Lisa go to hide.)
 - What happens at the end of the story? (Bill has to find them.)

Differentiate for Struggling Readers and English Learners

If time allows, instead of having a discussion about the beginning, middle, and end of the story, have students sketch a story map of these three parts.

INDEPENDENT PRACTICE

First Read

- Read aloud to students the story "Little Fox." Tell students to focus on characters, setting, and events in the story. After reading, ask them who the story is about, where does it take place, and what happens. See how many events they can identify.

Second Read

- Using the choral reading approach, reread the passage "Little Fox" aloud. Have students follow and read along with you as they are able. Allow students to use a marker or card to track the text if needed.

18 Level A Copying is prohibited.

Fully developed instructions support master teachers and novices alike.

Comprehensive directions for assigning and supporting practice.

Scope of Skills



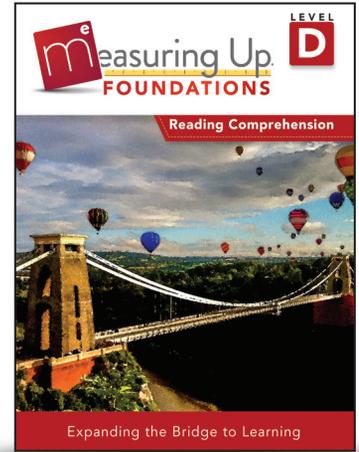
Reading Comprehension

Focused Areas	Level A Grade 1	Level B Grade 2
Reading Literature	<ul style="list-style-type: none"> • Key Details • Central Message • Characters / Settings / Events • Rhyme & Rhythm 	<ul style="list-style-type: none"> • Key Details • Central Message • Story Characters • Meaning of Rhythm
Literary Analysis & Response	<ul style="list-style-type: none"> • Literary / Informational Texts • Point of View • Illustrations • Characters & Their Actions 	<ul style="list-style-type: none"> • Story Structure • Point of View • Characters / Setting / Plot • Different Versions of Stories
Reading Informational Text	<ul style="list-style-type: none"> • Informational Texts • Main Topic & Key Details • Connections in Texts • Meaning of Words / Phrases 	<ul style="list-style-type: none"> • Informational Texts • Main Topic • Text Connections • Context
Analyzing Informational Text	<ul style="list-style-type: none"> • Text Features • Author's Purpose • Images & Key Ideas • Author's Main Ideas • Similarities & Differences in Texts 	<ul style="list-style-type: none"> • Text Features • Author's Purpose • Images • Reactions & Evidence • Two Texts / Same Topic

Level C Grade 3	Level D Grade 4	Level E Grade 5
<ul style="list-style-type: none"> • Ask Questions • Central Message • Character Description • Word Meanings 	<ul style="list-style-type: none"> • Inference • Theme • Characters / Settings / Events • Mythology 	<ul style="list-style-type: none"> • Quotes & Inference • Characters & Theme • Characters / Settings / Events • Figurative Language
<ul style="list-style-type: none"> • Story Structure • Point of View • Illustrations & Text • Stories by the Same Author 	<ul style="list-style-type: none"> • Differences in Genre • Points of View • Different Presentations • Similar Themes & Topics 	<ul style="list-style-type: none"> • Text Structure • Points of View • Multimedia Events • Stories in Same Genres
<ul style="list-style-type: none"> • Questions to Build Understanding • Main Idea & Key Details • Relationships: Events / Ideas • Academic / Domain-Specific Words 	<ul style="list-style-type: none"> • Explicit & Implicit Text • Main Idea & Key Details • Historical / Scientific / Tech Texts • Academic / Domain-Specific Words 	<ul style="list-style-type: none"> • Explicit & Implicit Language • Main Idea / Supporting Details • People / Events / Ideas • Academic / Domain-Specific Words
<ul style="list-style-type: none"> • Text Features / Search Tools • Different Points of View • Images & Text • Connect: Sentences & Paragraphs • Different Texts / Same Topic 	<ul style="list-style-type: none"> • Structure of Texts • Different Writers / Same Topic • Visual & Oral Presentations • Reason & Evidence • Information from Two or More Texts 	<ul style="list-style-type: none"> • Structure of Multiple Texts • Points of View • Print & Digital Source • Reasons & Evidence • Texts on Same Topic

Student Sample

Reading Comprehension



Lesson 2 Theme

Introduction
What Will I Learn?

- What is the theme of a story?
- How do I determine the theme?

The theme is the big idea, the message the author wants to convey to readers.



Break Down the Skills

When you read, you need to figure out the **theme**, the big idea, lesson, or message the author wants you to understand. Usually, that message is about a **moral**, a common principle of right and wrong human behavior or how people should live.

These themes can be about family bonds, honesty, trust, forgiveness, courage, or other **virtues**. A virtue is a behavior that shows high moral standards.

For example, if you are reading a story about someone who overcame big problems by being brave, you might say the theme is that courage helps people get through difficult times.

The theme is different from a story's **topic**, or what the story is about. Themes are not **explicit**. In other words, they are not stated directly. The author **implies**, or suggests, the theme based on the characters' actions. You must **interpret**, or figure out, the theme based on the details.

A theme often has to do with a lesson a main character learns.

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Part 1

Introduction and Breaking Down the Skill

Part 2

Guided Instruction

Lesson 2 • Theme

These tips can help you identify and understand the theme of a work.

- Identify the main character and the problem he or she faces.
- Follow the main character's actions and how problems are solved.
- The character's actions in the key details will give you hints of the theme.
- What does the character learn?
- Connect the problem or situation to your own life.

The theme of a story is different from a story's topic.



Guided Instruction
Read the passage below and answer the questions.

The Dancing Cobbler

- 1 Long ago, in a faraway land, there was a tiny village in a deep forest. There lived a steadfast cobbler who had a good life in his trade, making and repairing shoes.
- 2 He worked in his vine-covered cottage from dawn to dusk. "Ah me," he would sigh, "I fix all these shoes, but if only I had a pair of shoes with which I might go dancing from time to time." He once said this to Zeke, who lived next door.
- 3 "Bah!" Zeke cried. "Dancing is foolishness. Stick to business, and don't waste your day in idle dreaming!"
- 4 Still, the cobbler continued to hope. . . .
- 5 One day a gentlemanly stranger appeared on the cobbler's doorstep. He was smiling.
- 6 "Greetings, my friend," he said.
- 7 "Have we met?" the cobbler asked uncertainly. "I don't recognize you."

Guided Questions

What can you infer about the cobbler from paragraph 2?

What is the topic of this story?

What can you infer about Zeke from his actions?

2 Level D Copying is prohibited.

Lesson 2 • Theme

20 "I won't rest," he said, "until I do this!" Whereupon he took the stone to the well. He threw it down the dark shaft, gone forever. And from that time on, he never wished to go dancing again.

- 1 What do you think is the theme of this story?

- 2 Underline the character's action that led you to that theme.

Independent Practice
Read the selection. Then, answer the questions that follow.

The Shepherd Boy and the Wolf
A fable by Aesop

- 1 A young boy took care of his master's sheep in a forest not far from the village. He thought this job was very dull. All he could do for fun was to talk to his dog or play music on his pipe.
- 2 One day as he sat watching the sheep in the quiet forest, he thought about what he would do if he saw a wolf. He came up with a plan to amuse himself.
- 3 His master had told him to call for help if a wolf attacked the flock of sheep, and the villagers would come running and drive the wolf away. Even though there was no wolf, the boy ran toward the village shouting at the top of his voice, "Wolf! Wolf!"
- 4 The villagers heard him and dropped their work and ran to the pasture. When they got there they saw no wolf, and the boy was laughing at the trick he had played on them.

What can you infer about the boy after he plays the trick and laughs at the villagers?



Part 3

Independent Practice—Two Levels

- 8 "I was only a child at our first encounter," the man replied. "You once did me a great kindness."
- 9 "Were—were you the little boy who was lost in the forest?" he asked.
- 10 "Indeed I was. You saved my life, and as a gesture of my appreciation, I have a rare and marvelous gift for you." From his pack he took a perfectly black stone and held it out. "Rub this stone and make a wish. It will be granted." Before the surprised cobbler could thank him, he was gone.
- 11 "If only it were true," he thought. He rubbed the stone, and it glistened as if energized by magical forces. "Stone of darkness, stone of night, kindly make my future bright," he said, "Give me magic shoes that I might go dancing."
- 12 He waited. Nothing happened. "Hmph!" he said. He went out back and threw the stone into the pond. Then he got a surprise.
- 13 His feet began tapping, and his legs moved rhythmically, as if in time to music. He had dancing shoes on his feet. His arms flung wide, and he whirled across the yard into the town square. Around and around he danced. A crowd of curious spectators gathered around him.
- 14 At first he was happy, but now he couldn't stop. People began laughing at him.
- 15 "Don't make a fool of yourself!" said Zeke.
- 16 "Please help me," the cobbler pleaded. He told Zeke the whole doleful story.
- 17 Zeke said, "I'll go fetch the stone." So saying, he plunged into the pond where the cobbler had thrown it. Exhausted by now, the unhappy cobbler was desperate to have his plight alleviated. His face lit up hopefully as Zeke finally retrieved the stone and returned with it.
- 18 "Thank you, my friend!" he cried, seizing it eagerly. He rubbed it again, saying, "I wish I could stop dancing—NOW." Again the stone sparkled, and a moment later, he collapsed on the ground. He started to get up again.
- 19 "Rest now," Zeke said. "The spell is broken."

Guided Questions

What do the cobbler's actions in paragraph 14 tell you about him?

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Measuring Up Foundations • Reading Comprehension

3

- 5 A few days later the boy again shouted, "Wolf! Wolf!" Again the villagers ran to help him, only to have the boy laugh at them again. Again, the boy had tricked the villagers.
- 6 One evening as the sun was setting and the shadows were creeping out over the pasture, a wolf really did spring up from hiding and attack the sheep.
- 7 The boy ran toward the village in terror, shouting, "Wolf! Wolf!" The villagers heard the cry, but they did not run to help him.
- 8 "He cannot fool us again," they said.
- 9 The wolf killed many of the sheep and then slipped away into the forest.



Examine the characters' actions in the details to understand a theme.



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Measuring Up Foundations • Reading Comprehension

5

Practice 1

- 1 Which is the topic of this story?
- A A boy guards his sheep.
B A boy has many good friends.
C A shepherd boy is very trustworthy.
D A boy who is bored starts to play tricks.
- 2 Which can you infer about the boy from this passage?
- A He is a good worker.
B He does not like sheep.
C He cannot be trusted.
D He is afraid of foxes.
- 3 Which is an implicit statement?
- A "A young boy took care of his master's sheep."
B "He came up with a plan to amuse himself!"
C "He thought this job was very dull."
D "The boy ran toward the village in terror."

To make an inference, there must be some evidence in the text.



6

Part 4

Exit Ticket

Exit Ticket

Now that you understand the difference between topic and theme, read this passage. Then underline the topic. Circle the theme.

One day a lion walked proudly through the forest. The animals gave him respect and made way for him to pass. But a donkey made a nasty comment as the lion passed.

For a second, the lion felt anger. When he turned his head though and saw who had spoken, he walked quietly on. The lion would not honor the fool with so much as even a stroke of his claw.

Do not pay attention to the remarks of a fool. Ignore them.

- 2 Which detail supports the story's theme?
- A The boy thought his job was very dull.
B The boy played with his dog and his pipe for fun.
C The villagers dropped their work and ran to help the boy.
D The villagers did not run to help the boy.
- 3 Which can you infer is the reason the villagers did not go a third time to help?
- A They wanted to teach the boy a lesson and let him deal with the wolf himself.
B They did not trust the boy and thought he was lying again.
C They no longer cared about the boy.
D They did not hear the boy's cry for help.
- 4 Which is the definition of a story's topic?
- A a behavior that shows a high moral standard
B what the story is about
C the big idea or lesson in a story
D the number of characters
- 5 How did the boy's actions help you determine the theme?
-
-
-
-

Remember that topic and theme are different.



8

Level D

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- 4 Summarizing the order of events can help you determine a theme. Number these events in the order in which they happened.

- The boy came up with a trick.
 The wolf killed the sheep.
 The villagers no longer ran to help the boy.
 A boy was bored with his job.
 He lied to the villagers twice.

- 5 Which is the definition of **theme**?
- A a behavior that shows a high moral standard
B what the story is about
C the lesson or message in a story
D to figure out

Practice 2

- 1 What is the theme of this story?

This is the big idea, the message the author wants you to learn from this story.



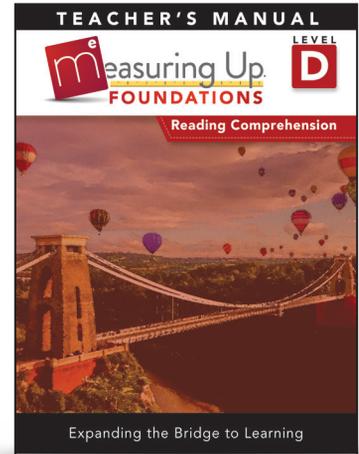
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Measuring Up Foundations • Reading Comprehension

7

Teacher Support

Reading Comprehension



Lesson At-a-Glance

- Learning objectives
- Academic vocabulary
- Why students may struggle
- Passage information

Part 1

Introduction and
Breaking Down the Skill

Activating prior
knowledge specific to
the skill

Explicit instruction—
pre lesson

TEACHER GUIDE

Lesson 2 Theme

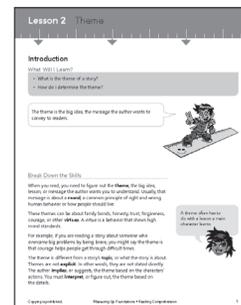
At-a-Glance

Learning Objectives		Why Students May Struggle	
<ul style="list-style-type: none"> • Understand theme. • Identify the theme of a story. • Know the difference between theme and topic. 		Students struggle with identifying the theme of a story and often confuse it with the story's topic. It is difficult for them to understand that a theme is a universal truth.	
Academic Vocabulary		Passage Information	
theme	moral	virtue	topic
explicit	imply	interpret	
		The Dancing Cobbler Reading Level: 610–800L Word Count: 510 The Shepherd Boy and the Wolf Reading Level: 610–800L Word Count: 264 Exit Ticket Passage Reading Level: 410–600L Word Count: 83	

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Activate students' prior knowledge by discussing a well-known book or film, such as *Star Wars*. Brainstorm with them what the "big idea" of the story is. Get them to discuss such topics as good v. evil and how good always prevails over evil (e.g., the Force and the Dark Side and so on). Discuss such things as human nature; the Dark Side's aggression, anger, and hatred; leadership, commitment, learning through failure, and themes of navigating life—whether in a galaxy far, far away or right here on Earth.
- List on the board all of the themes the students come up with and ask them to give examples of those themes from the film or book. Ask them to also describe characters' actions, a key component to understanding theme. Ask students what the filmmaker wants viewers to take away—what message—from the films.



EXPLICIT INSTRUCTION

- Before teaching theme, be sure students understand the difference between main idea, topic, and point of view. These are important for them to understand before they can discuss themes. Summarizing a story or a paragraph is also a good skill that will enable students to better extract themes.

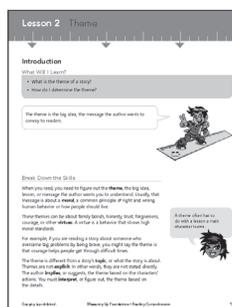
- After reading a section or chapter of a text, see if any themes emerge. Ask students guided questions such as, “What did we learn about the main character?” and “Can you connect with the main character’s actions?” Make a list of emerging themes on the board. Students can also make lists of universal themes on index cards or on anchor charts for reference. Some themes may include beauty in the eye of the beholder, falling from grace, family values, prejudice, perseverance, peer pressure, nature v. nurture, kindness, compassion, honesty, trust, and so on. While brainstorming, provide visuals to support student understanding.
- Explain to students that the theme is different from a main idea of a story. The theme is the lesson the author wants to impart—for readers to take away from a story. The Independent Practice of this lesson has a particularly good selection about honesty and the “boy who cried wolf” concept by Aesop. Tell students they can disagree with the author’s point of view, but they must understand the theme the author imparts.
- Explain to students that they can sometimes make inferences about themes and main ideas, but they must be based on solid evidence from the text. They need to examine the story elements and characters’ actions. Characters’ actions will often drive the themes.
- Explain that character traits and actions can reveal a story’s theme, such as in the story of the boy who cried wolf. Do not give this theme away, however, as it is the subject of the second independent reading in this lesson.
- Explain to students that *themes are not usually stated in the passage*. The author implies the themes, and students must interpret those themes. To help students better understand this, have students read a paragraph with a clear theme, or read aloud a short mentor text to them. Tell students the theme, using a Think Aloud to explain how you figured it out. Read the text a second time, showing them the theme was not stated anywhere in the text, and explain how you figured it out.
- Introduce a fable or folktale, and see if students can understand a given moral at the end. Ask them how it connects with their own lives. Being able to think about how a story connects to their own lives might be difficult for them. Provide direct instruction on the different connections and model it for them, but keep it engaging and interesting for struggling readers. Let students do Pair and Shares to discuss connections and exchange their own experiences, if they are willing.
- Explain that at times there might be more than one theme in a story and several correct answers. Theme can be subjective, so allow students to explore their own thoughts. Tell them you will accept any answers, as long as they can provide evidence for it in the text.

Explicit instruction—
during lesson

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Explain to students that when they read they must figure out the **theme**, the big idea, lesson, or message the author wants them to understand from a text. Tell them usually that message is about a **moral**, a common principle of right and wrong human behavior or how people should live.
- Explain that themes can be about family bonds, honesty, trust, forgiveness, courage, or other **virtues**. A virtue is a behavior that shows high moral standards.



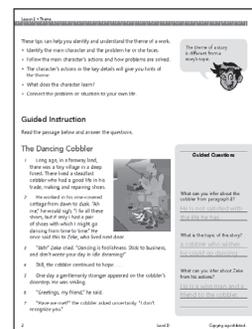
Front loading of
concept-specific
vocabulary

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Measuring Up Foundations • Reading Comprehension

3

- For example, explain that if they are reading a story about someone who overcomes a big problem by being brave, the theme might be that courage helps people get through difficult times.
- Explain that the theme is different from a story’s **topic**, or what the story is about. Themes are not **explicit**. In other words, they are not stated directly. The author **implies**, or suggests, the theme based on the characters’ actions. Explain that they must **interpret**, or figure out, the theme based on the details.
- If time allows, have students complete the On Your Own activities at the end of these notes.



Struggling student and
English learner support
—embedded within
lesson

Differentiate for Struggling Readers and English Learners

Have students create anchor charts of common universal themes such as “Honesty is the best policy,” and so on. Display the anchor charts in the classroom. Alternatively, they can write themes on index cards or on sticky notes and put them in their notebooks or in a separate list.

Teacher Support Continued

Lesson 2 • Theme

- For example, explain that if they are reading a story about someone who overcomes a big problem by being brave, the theme might be that courage helps people get through difficult times.
- Explain that the theme is different from a story's **topic**, or what the story is about. Themes are not **explicit**. In other words, they are not stated directly. The author **implies**, or suggests, the theme based on the characters' actions. Explain that they must **interpret**, or figure out, the theme based on the details.
- If time allows, have students complete the On Your Own activities at the end of these notes.

Differentiate for Struggling Readers and English Learners

Have students create anchor charts of common universal themes such as "Honesty is the best policy," and so on. Display the anchor charts in the classroom. Alternatively, they can write themes on index cards or on sticky notes and put them in their notebooks or in a separate list.

GUIDED INSTRUCTION

First Read

- Direct students to follow along as you read "The Dancing Cobbler" aloud.

Second Read

- Using the choral reading approach, reread "The Dancing Cobbler" aloud. Have students follow along reading in unison as they are able. Allow students to use a marker or card to track the text if needed.

Guided Reading Questions

- Read the Guided Reading Questions aloud and have students answer them. Discuss the answers orally.

4 Level D Copying is pro

Part 2

Guided Instruction

Struggling student and English Learner support—embedded within lesson

Guidance included for each activity

Guided Instruction
Independent Practice—Two Levels
Exit Ticket

INDEPENDENT PRACTICE

First Read

- Read aloud to students the passage "The Shepherd Boy and the Wolf"

Second Read

- Have students reread the passage "The Shepherd Boy and the Wolf" independently.

Practice 1 Questions

- Read the questions and answer choices aloud as students select the answers. Review the answers.

Part 3

Independent Practice

Practice 2 Questions

- Ask students to read the questions and select the answers independently. Review the answers.

The first screenshot shows a digital reading interface with a passage and four multiple-choice questions. The second screenshot shows the same interface with questions 5, 6, and 7. The questions are about the main idea, supporting details, and the theme of the passage.

EXIT TICKET

- Have students fill in the Exit Ticket at the end of class. They will read a short passage and identify the topic and the theme.

The Exit Ticket form contains a short passage about a character's journey and three multiple-choice questions. The questions ask for the main idea, a supporting detail, and the theme of the passage.

ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- It is essential for students to understand that topic, theme, and main idea are different. To help them understand this, have them read a short passage with a clear theme. Then, give them five statements from the passage—three details, one statement that supports the main idea, and the theme itself. Do not tell them which is which. Have them figure it out. Do this activity several times until students are clear about details, main ideas, and the theme of a story. English learners can also benefit from this activity once you reinforce the meanings of *main idea*, *detail*, and *theme*.
- Make sure students understand that a “universal truth” means a theme that applies to real life, not just a lesson for a character in a story. Tell students the author intends for the reader to learn this truth from the theme of a story. Practice reading short passages with clear themes. Identify the themes for the students, and ask them how they could apply the themes to their own lives.

SUPPORT FOR ENGLISH LANGUAGE LEARNERS

- Practice theme in isolation with English learners, as it is a confusing aspect for them as they grapple with language. Start with small chunks of text, maybe just one paragraph at a time, making sure students understand before moving on to larger chunks of text.

Part 4

Exit Ticket

End of lesson—additional support for struggling learners and English language learners

EXTENSION ACTIVITIES
for every lesson

For students who need more, teachers can choose the extra activities specific to lesson skills. Copymasters included.

- Once you reinforce the vocabulary terms *main idea*, *detail*, and *theme*, it is essential for students to understand that topic, theme, and main idea are different. To help them understand this, have them read a short passage with a clear theme. Then, give them five statements from the passage—three details, one statement that supports the main idea, and the theme itself. Do not tell them which is which. Have them figure it out. Do this activity several times until students are clear about details, main ideas, and the theme of a story.
- Give students short stories and give them the themes to the stories. Have them read the stories in pairs or in groups and underline the details or characters' actions that give evidence to those themes. Explain to them that themes are not stated explicitly in a text. They must back up the themes with evidence from the text.

EXTENSION ACTIVITIES

- Since stories can have more than one theme, provide students with stories that have several themes and have them read them as a group and brainstorm for the different themes.
- Give students some common thematic components, such as love and revenge, power and greed, fate, free will and freedom, corruption, ambition, violence, or fear and courage. Let them put these in sentence form, such as the following: absolute power corrupts absolutely, honesty is the best policy, and so on. Tell them to get creative and make up some of their own.
- Have students write essays on universal themes. The essays could have different subjects: What is heroism? What does it mean to be a good friend? Why is honesty the best policy?
- Give students common themes and have them write adages to go with them. For example, for the theme of *perseverance*, students could write “Hard work pays off” or “Never give up.” For *happiness*, they could write “Be happy with what you have,” and so on. Let them be creative and make up their own.

Scope of Skills



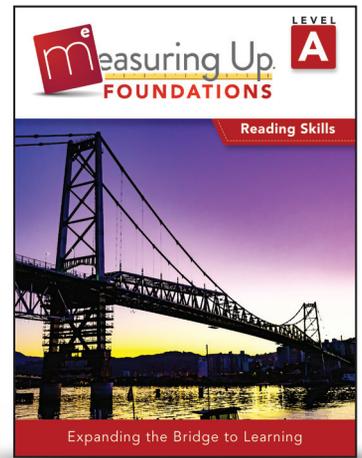
Reading Skills

Focused Areas	Level A Grade 1	Level B Grade 2
Phonological Awareness	<ul style="list-style-type: none"> • Alphabet Sounds • Sounds into Words • Vowels • Rhyme with Word Families • Blended Sounds • Word Parts • Separate Syllables 	<ul style="list-style-type: none"> • Words & Sounds • Vowel Sounds • Blended Sounds • Word Parts • Break Down Words
Phonics & Word Recognition	<ul style="list-style-type: none"> • Digraphs • Regularly Spelled Words • Long Vowel Sounds • Syllables • Open & Closed Syllables • Two-Syllable Words • Base Words with Added Endings • High Frequency & Irregularly Spelled Words • Alphabetizing 	<ul style="list-style-type: none"> • Phonics • Long & Short Vowels • Common Vowel Teams • Two-Syllable Words • Common Spelling Sounds • Prefixes & Suffixes • Irregularly Spelled Words
Fluency	<ul style="list-style-type: none"> • Parts of a Book • Sentences • Reading Purpose • Accuracy, Fluency & Expression • Context Clues 	<ul style="list-style-type: none"> • Book & Sentence Features • Accurate & Fluent Reading • Purpose for Reading • Accuracy & Expression • Context

Level C Grade 3	Level D Grade 4	Level E Grade 5
<ul style="list-style-type: none"> • Words and Sounds • Long & Short Vowels • Single-Syllable Words • Word Parts 	<ul style="list-style-type: none"> • Phonemes • Long & Short Vowels • Sound Blends • Word Parts • Words into Sounds 	<ul style="list-style-type: none"> • Words & Sounds • Long & Short Vowels • Blending Sounds • Phonemes • Segment Sounds
<ul style="list-style-type: none"> • Phonics • Prefixes & Suffixes • Latin Suffixes • Multi-Syllable Words • Irregularly Spelled Words 	<ul style="list-style-type: none"> • Phonics • Prefixes & Suffixes 	<ul style="list-style-type: none"> • Prefixes, Suffixes & High Frequency Words
<ul style="list-style-type: none"> • Print Features • Sentence Features • Accurate & Fluent Reading • Purposeful Reading • Poetry with Expression 	<ul style="list-style-type: none"> • Book Features • Sentence Features • Accurate & Fluent Reading • Purposeful Reading • Poetry with Expression 	<ul style="list-style-type: none"> • Print Features • Accuracy & Fluency • Purpose for Reading • Poetry & Prose with Expression • Context Clues

Student Sample

Reading Skills



Part 1

Introduction and Breaking Down the Skill

Lesson 1 Alphabet Sounds

Introduction
What Will I Learn?

- What are uppercase and lowercase letters?
- What sound does each letter make?

What are the sounds of the alphabet?

Break Down the Skills

There are 26 letters in the **alphabet**.

Each letter has an **uppercase** and a **lowercase**.

A ← **uppercase or capital**

a ← **lowercase**

Chapter 1 • Phonological Awareness

Say the alphabet aloud.

Aa Bb Cc Dd Ee Ff Gg
Hh Ii Jj Kk Ll Mm
Nn Oo Pp Qq Rr Ss Tt
Uu Vv Ww Xx Yy Zz

Every letter has a different sound.

Say the letter sounds in the alphabet.

Words that sound the same **rhyme**.

Say each and listen for the rhymes.

Listen to the different sound each letter makes.

The first letters are different, but the words rhyme.

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Part 2

Guided Instruction

Lesson 1 • Alphabet Sounds

Guided Instruction

Circle the capital letters.

Circle the lowercase letters.

Circle the words with the same letter sounds.

Underline the word that begins with the same sound as **hot**.

1 Write the lowercase letter for **M**.

2 Look at the picture. Write the letter of the beginning sound.

Level A Copying is prohibited.

Part 3

Independent Practice—Two Levels

Lesson 1 • Alphabet Sounds

Practice 2

1 Circle the pictures that have the same beginning sounds.

With what letters do the words start?



2 Sketch a picture of something that begins with the **b** sound.

3 Circle the words that rhyme.

fan pot man sun

Level A Copying is prohibited.

Chapter 1 • Phonological Awareness

Independent Practice

Practice 1

1 Circle the lowercase letters.

A b d F

Remember that the alphabet has uppercase and lowercase letters.



2 Circle the uppercase letters.

L n j B

3 Circle the words that have the same sounds.

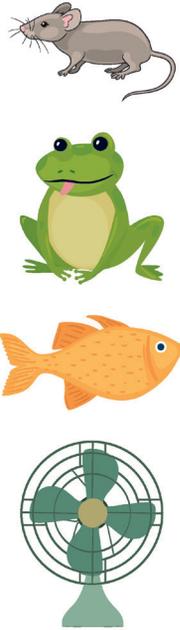
pop it mop sun

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Chapter 1 • Phonological Awareness

Exit Ticket

Look at the pictures. Circle the ones with the same beginning sounds.



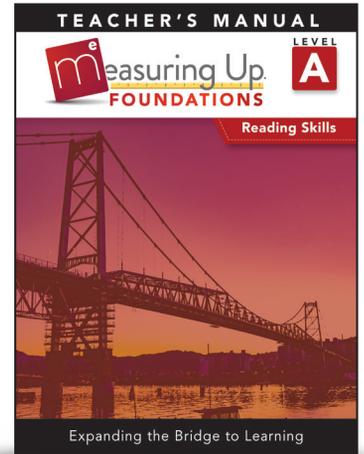
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Part 4

Exit Ticket

Teacher Support

Reading Skills



TEACHER GUIDE

Lesson 1 Alphabet Sounds

At-a-Glance				
Learning Objectives		Why Students May Struggle		
<ul style="list-style-type: none"> Identify uppercase and lowercase letters. Identify each letter sound. 		Students may struggle with identifying each letter and with the different sounds each letter makes. Reinforce this by reading each letter sound aloud with them multiple times.		
Academic Vocabulary				
alphabet	uppercase	lowercase	capital	rhyme

Part 1

Student Lesson

Lesson At-a-Glance Review

- Learning objectives
- Why students may struggle

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Before beginning the lesson, sing "The Alphabet Song" with students to see if they know it. If not, teach it to them.

A—B—C—D—E—F—G
H—I—J—K, L—M—N—O—P
Q—R—S, T—U—V
W—X, Y and Z

Now I know my ABCs
Next time won't you sing with me?

There are several good YouTube videos with "The Alphabet Song" with lyrics. Consider showing one and having students sing along with the video. Sing it twice.

EXPLICIT INSTRUCTION

- Put the alphabet up on the board or follow a chart you may already have on. Show students that the alphabet has uppercase and lowercase letters or use the first page of the lesson for students to follow along. Having a visual at the front have all students paying attention to you is preferred, however.
- Ask students if they know that each letter makes a specific sound. Call on a few students to say a random letter sound. Say each of the letter sounds one by one as you point to the letter. Ask students to say the letter sounds with you.

Additional Support to Differentiate

Struggling Learners
English Language Learners

EXTENSION ACTIVITIES for every lesson

For students who need more, teachers can choose the extra activities specific to lesson skills. Copymasters included.

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Explain to students that there are 26 letters in the **alphabet**.
- Tell them each letter has an **uppercase** and a **lowercase**. With a pointer, go over each letter individually, showing them the upper and lower cases.
- Tell them the uppercase letters are called **capitals**.

Explicit instruction

- Tell students each letter has its own sound. Go over each sound with them.
- Then tell them that some words with the same letter sounds **rhyme**, which means they have the same sounds. Give them the example on the right with the *hat*, *bat*, and *cat*. Do not tell them what the images are. Ask students to identify the images and tell them to listen to the sounds as they say them. After students identify the images, write the words on the board. Tell them to note that while the first letters are different, the other letters are the same. The only difference is the beginning sounds. As rhyme is not taught until *Lesson 4 Word Families*, do not dwell on rhyme in this lesson. Focus mainly on uppercase and lowercase letter writing and the letter sounds.
- If time allows, have students complete the On Your Own charts at the end of these notes.

Differentiate for Struggling Readers and English Learners

Students who have difficulty forming letters can use an alphabet chart with directional arrows, such as Copy Master 1 (also shown below), and trace the letters.

Aa Bb Cc Dd
Ee Ff Gg Hh
Ii Jj Kk Ll
Mm Nn Oo Pp
Qq Rr Ss Tt
Uu Vv Ww Xx

Lesson 1 • Alphabet Sounds

EXTENSION ACTIVITIES

- Students who are able to read and write one-syllable words can write a list of words for each letter of the alphabet and also sketch a picture of each.
- Students can make alphabet flash cards and play a game in groups of 3 or 4. One student holds up a letter card and another student has to quickly name something that starts with that letter. Each time a student wins, the student collects a bean. The one with the most beans at the end of the game gets to select a small prize. If you do not want to make this competitive, students can also play with miniature chocolates or another snack item. Each student gets a chocolate for the correct answer. At the end of the game, they put the chocolates all together and each student gets one.

GUIDED INSTRUCTION

First Read

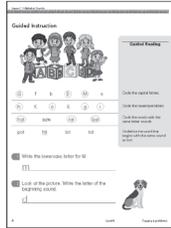
- Direct students to follow along as you read. Tell them to look at the words and letters to identify uppercase and lowercase letters and words that sound the same.

Second Read

- Using the choral reading approach, reread the activity aloud with students. Allow students to use a marker or card to track the text if needed.

Guided Reading Questions

- Read the Guided Reading Questions aloud and have students answer them. Discuss the answers orally.



INDEPENDENT PRACTICE

Practice 1 Questions

- Read the questions and answer choices aloud as students select the answers. Review the answers.



Practice 2 Questions

- Ask students to read the questions and select the answers independently. Review the answers.



Part 2

Student Lesson

Part 3

Student Lesson

Part 4

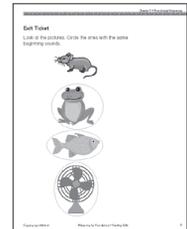
Exit Ticket

End of Lesson—Additional Support

**Struggling Learners
English Language Learners**

EXIT TICKET

- Have students fill in the Exit Ticket. Tell them to look at the pictures and circle the ones with the same beginning sounds.



ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- Students can play this in groups. Give each student or group 10 alphabet tiles, foam letters, magnetic letters, or even small letter cards they make themselves. Go through a stack of shuffled letter cards and call out each letter to the children. As you call the letters, students look to see if they have that letter. If they do, they put the letter back in a box or basket. See who is first to clear all their letters. To avoid competition, you can also play until all students have cleared their letters.
- Make Bingo cards, and have students play Alphabet Bingo. Call out a letter. If students have that letter on their cards, they place a tile or an X on the letter. The first one to fill a line horizontal or diagonal, like in Bingo, wins.
- Get bags of large, dry, white beans. With a marker, write the letters of the alphabet on the beans, making multiple sets of each letter. Give students a handful of letters and see if they can write words with the beans. If they do in groups, students may “trade” letters if one student needs a letter to complete a certain word.

SUPPORT FOR ENGLISH LANGUAGE LEARNERS

- English learners can make alphabet anchor charts, writing the uppercase and lowercase letters to use while they are working and reading.
- Have students create posters, drawing pictures of things that belong with each letter of the alphabet. Have them go in A-B-C order and draw a picture of something that starts with that letter, e.g., an apple for A, a book for B, a cat for C, and so on.
- Make sand trays in shoe box lids or other containers. Fill them with a little sand, and have students form letters in the sand with their fingers. Colored glitter also works well, although it is more expensive. Shaving cream could also be used. This is good for tactile students.

Name _____ Date _____

On Your Own
Trace each letter in the alphabet. Follow the arrow.



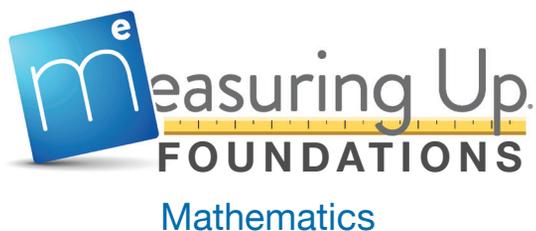
Lesson 1 Copy Master 2

Name _____ Date _____

On Your Own

My Alphabet Chart			
A a	B b	C c	D d
E e	F f	G g	H h
I i	J j	K k	L l
M m	N n	O o	P p
Q q	R r	S s	T t
U u	V v	W w	X x
	Y y	Z z	

Scope of Skills

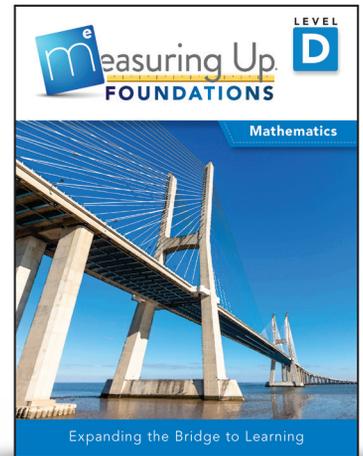


Focused Areas	Level A Grade 1	Level B Grade 2
Numbers, Operations & Algebraic Thinking— Base Ten	<ul style="list-style-type: none"> • Count & Read Numbers to 50 • Count, Read & Write Numbers to 120 • Order Numbers • Count Objects & Compare Numbers • Count Objects by Skip Counting • Add & Subtract Within 10 & 20 • Add Two-Digit & One-Digit Numbers • Add & Subtract Three Numbers • Find 10 More & 10 Less • Relate Addition & Subtraction • Practice Addition & Subtraction Facts • Solve Real-World Problems 	<ul style="list-style-type: none"> • Count, Read & Write Read Numbers • Use Place Value • Compare Numbers • Practice Addition & Subtract Facts • Add & Subtract Within 1000 • Add Within 1000 with Composing • Subtract Within 1000 with Decomposing • Decide if Numbers are Odd or Even • Write an Equation • Make & Break Groups
Numbers, Operations & Algebraic Thinking— Fractions & Decimals	N/A	N/A
Measurement, Data & Geometry	<ul style="list-style-type: none"> • Describe & Compare Objects • Measure Lengths of Objects • Tell Time to the Half Hour • Put Things in Order • Create Graphs & Explain Data • Describe Shapes • Use Shapes within Shapes • Understand Halves & Fourths 	<ul style="list-style-type: none"> • Measure Lengths • Compare & Estimate Length • Tell Time to Five Minutes • Solve Word Problems Involving Measurements & Money • Add & Subtract on a Number Line • Collect Data • Make & Explain Line Plots & Graphs • Identify Shapes & Solids • Divide Shapes into Parts • Describe & Compare Parts & Wholes

Level C Grade 3	Level D Grade 4	Level E Grade 5
<ul style="list-style-type: none"> • Round and Estimate Numbers • Add and Subtract Within 1000 • Know Multiplication Facts • Relate Multiplication & Division Facts • Know Division Facts • Find Unknown Factors • Use Multiplication & Division Strategies • Multiply 1-Digit Whole Numbers by Multiples of 10 • Solve One- and Two-Step Word Problems with Four Operations 	<ul style="list-style-type: none"> • Read, Write & Compare Numbers • Round Numbers • Add & Subtract Multi-Digit Whole Numbers • Multiply Whole Numbers • Divide Whole Numbers • Solve Word Problems Involving the Four Operations • Find Factors & Multiples • Make & Use Patterns 	<ul style="list-style-type: none"> • Understand Place Value Patterns • Multiply Whole Numbers • Divide Whole Numbers • Write & Interpret Numerical Expressions
<ul style="list-style-type: none"> • Understand & Compare Fractions • Understand Equivalent Fractions • Tell & Write Time to the Nearest Minute • Solve Word Problems Using Time Intervals 	<ul style="list-style-type: none"> • Compare Fractions • Add / Subtract Simple Fractions with Like Denominators • Add & Subtract Mixed Numbers • Multiply Fractions by Whole Numbers • Understand Fractions & Decimal Numbers • Compare Decimals 	<ul style="list-style-type: none"> • Read, Write & Compare Decimals • Round Decimals • Add & Subtract Decimals • Multiply Decimals • Divide Decimals • Add / Sub Fractions with Unlike Denominators • Divide Whole Numbers with Fraction Quotients • Multiply Whole Numbers by Fractions • Divide Unit Fractions by Whole Numbers • Divide Whole Numbers by Unit Fractions
<ul style="list-style-type: none"> • Measure Volume & Mass • Use Data in Dot Plots, Picture / Bar Graphs • Summarize Data Using Table, Dot Plot, or Graph • Explore Categories of Shapes • Find Area Using Unit Squares • Find Area & Perimeter • Add to Find Total Area 	<ul style="list-style-type: none"> • Compare & Convert Measurement Units • Solve Word Problems Involving Measurements • Display & Use Measurement Data • Understand Angle Measurement • Draw & Identify Geometric Figures • Recognize & Draw Lines of Symmetry 	<ul style="list-style-type: none"> • Make & Use Line Plots • Convert Measurement Units in Problems • Find Volume & Rectangular Prisms • Understand Coordinate Plane & Ordered Pairs • Use Pattern Rules

Student Sample

Mathematics



Lesson 4 Multiply Whole Numbers

Introduction

What Will I Learn?

- How do you multiply a four-digit number by a one-digit number?
- How do you multiply 2 two-digit numbers?

You can use models and equations to help you multiply!



Break Down the Skills

Two numbers, or two **factors**, multiplied together give a **product**.

- Breaking up one or more factors by place value allows you to find **partial products** that may then be added to find the product.

$$\begin{aligned} 2,645 \times 3 &= (2,000 \times 3) + (600 \times 3) + (40 \times 3) + (5 \times 3) \\ &= 6,000 + 1,800 + 120 + 15 \\ &= 7,935 \end{aligned}$$

Notice that $2,645 = 2,000 + 600 + 40 + 5$. The value of each digit in 2,645 is multiplied by 3.



- An **area model** can be used to show these partial products. The sum of the areas equals the product. The model shows $2,645 \times 3$.

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Level D

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Part 1

Introduction and Breaking Down the Skill

Lesson 4 • Multiply Whole Numbers

Guided Instruction

Multiplication is **repeated addition**.

For example, you can write the product of 3×4 as the sum $4 + 4 + 4$. Both operations show "3 groups of 4". Shown below are 3 groups of 4 triangles.



The total number of triangles is 12, so $3 \times 4 = 12$ and $4 + 4 + 4 = 12$.

On a multiplication table, products are shown where rows and columns meet. The product of 3×4 , or 12, is highlighted in the table below.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Circle the products for the multiplication facts.

- $4 \times 6 =$ 16 20 24 28 32
 $7 \times 5 =$ 20 25 30 35 40
 $6 \times 8 =$ 24 32 36 42 48
 $9 \times 7 =$ 45 54 63 72 81

Repeated addition is adding equal groups together.



Part 2

Guided Instruction

Check your answers using the multiplication table.



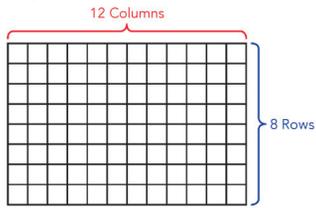
34

Level D

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The multiplication fact 8×12 means 8 groups of 12. You can show this fact with an array or an area model.

Array

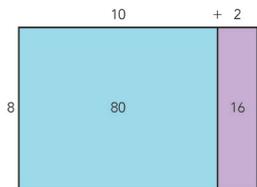


To find the factors shown by the array, count the number of squares in each row and the number of rows.



The array above has 8 rows and 12 columns. The total number of squares show the product.

Area model



Each area (or partial product) in the area model is calculated by multiplying the length times the width. The sum of the partial products equals the product.



The area model above represents the following.

$$8 \times 12 = (8 \times \underline{\quad}) + (8 \times \underline{\quad})$$

$$= \underline{\quad} + 16$$

$$= \underline{\quad}$$

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Measuring Up Foundations • Mathematics

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Part 3

Independent Practice—Two Levels

Independent Practice

Answer the questions that follow.

Practice 1

1 Which number has factors 5 and 80?

- A 300
- B 350
- C 400
- D 450

Your answer will be the product of 5 and 80.



2 What is the product?

$$9 \times 800$$

- A 6,300
- B 7,200
- C 8,100
- D 9,000

3 Multiply $4,265 \times 2$.

Fill in the blanks to show the first step of finding the partial products.

$$\underline{\quad} \times 2 + (\underline{\quad} \times 2)$$

Level D

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Exit Ticket

With each flight, Matt earns 1,455 award miles. How many award miles will he have earned after 8 flights?

Complete the area model to represent and solve this problem.



$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$
 Matt will have earned $\underline{\quad}$ award miles after 8 flights.

Describe how the area model shows the solution to the problem.

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Measuring Up Foundations • Mathematics

To multiply larger numbers, you must know your basic multiplication facts.

Multiply a four-digit number by a one-digit number.

$$3,257 \times 4 = ?$$

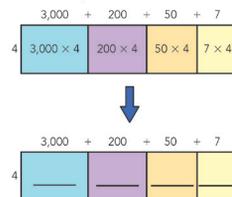
One Way: Use partial products. Break apart one or more factors by place value to find partial products.

$$3,257 \times 4 = (3,000 \times 4) + (\underline{\quad} \times 4) + (50 \times 4) + (7 \times 4)$$

$$= \underline{\quad} + 800 + 200 + 28$$

$$= \underline{\quad}$$

Another Way: Use an area model.



The total area, or $12,000 + 800 + 200 + 28$, equals $\underline{\quad}$.

Yet Another Way: Use the standard algorithm.

$$\begin{array}{r} 123 \\ 3,257 \\ \times 4 \\ \hline 8 \end{array}$$

Solve: $3,257 \times 4 = \underline{\quad}$

Multiply 4 by each digit in 3,257. When you get a product that is larger than 9, regroup. For example, 28 is larger than 9, so you must put down the 8 and carry the 2 tens. When you multiply 4 by 5, do not forget to add the 2.



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Level D

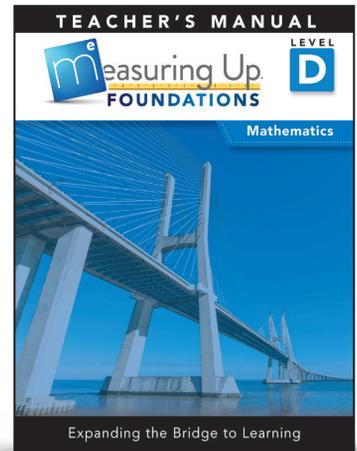
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Part 4

Exit Ticket

Teacher Support

Mathematics



TEACHER GUIDE

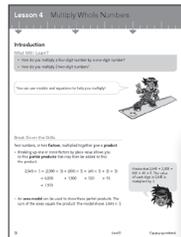
Lesson 4 Multiply Whole Numbers

At-a-Glance	
Learning Objectives	Review Skills
<ul style="list-style-type: none"> Multiply a four-digit number by a one-digit number. Multiply 2 two-digit numbers. 	<ul style="list-style-type: none"> Know multiplication facts.
Academic Vocabulary	Why Students May Struggle
factor product partial product area model standard algorithm	Students might not understand how partial products relate to the total product. Students might not understand why the standard algorithm works.

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Review the concept of multiplication with students. On the board, show examples of multiplicative situations. For example, show 4 sets of 3 birds, 5 groups of 10 pennies each, 6 muffin tins with 12 muffins each, and so on. Have students describe how they can represent each of these examples by using number sentences. For the group of birds, look for students to say that they can write 4 times 3 or show 3 plus 3 plus 3. Ask students to explain why their number sentences are correct.
- Give students a hundred chart and ask them to choose three multiplication facts shown on the chart. Ask them to write and illustrate the three facts by using a drawing.
- Call out random multiplication facts and ask students to, as a group, provide the answers.



EXPLICIT INSTRUCTION

- Explain that several strategies may be used to multiply numbers. Clarify that both the partial products method and the area model method show multiplication visually, and that the standard algorithm method provides an efficient way to multiply. Tell students that by learning all three methods, they will know which works best for them.
- On the board, write the problem $1,234 \times 5$. Ask students to discuss ways that this problem could be represented by using models and drawings. Students may say that they can draw 1,234 groups of 5 pencils each or draw a rectangle with 1,234 rows and 5 columns. Draw the models suggested by students on the board and have students discuss how they are similar and different.

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Measuring Up Foundations • Mathematics

Explicit Instruction

Part 1

Student Lesson

Lesson At-a-Glance Review

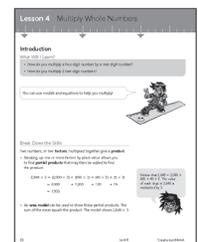
Lesson 4 • Multiply Whole Numbers

- Give students some base-ten blocks. Ask them to represent the number 1,234 by using the blocks. Ask students if they can describe the number by place value. Confirm students' understanding and write $1,234 = 1,000 + 200 + 30 + 4$ on the board.
- Explain that the number 1,234 can be multiplied by 5 by multiplying each digit's value by 5. Point to the multiplication problem again. Then, write $1,234 \times 5 = (1,000 \times 5) + (200 \times 5) + (30 \times 5) + (4 \times 5)$. Ask students to help you perform the operations inside the parentheses and simplify. Use the same idea of partial products to show how this can be represented using an area model.
- Point out to students that they are using the distributive property when they separate the place values and multiply. Remind them that the distributive property of multiplication says that 10×25 is the same as $10 \times 20 + 10 \times 5$.
- Ask students to multiply $2,674 \times 2$. Arrange students in groups of three. Have one student solve the problem by using partial products and an equation. Have another student solve the problem by using an area model. Have the third student solve the problem by using the standard algorithm. Ask students to compare the products that they got and discuss how partial products are represented in each model. Then, have group members switch strategies and use the same approaches to solve 24×28 .
- Model the use of the standard algorithm to find the product. Ask students to discuss which method is easiest for them.
- Repeat the process using the problem 36×24 . Have students discuss how the processes for multiplying a four-digit number by a one-digit number and multiplying 2 two-digit numbers are similar and different. Ask students if they know why they get two rows of numbers to add when multiplying 2 two-digit numbers.

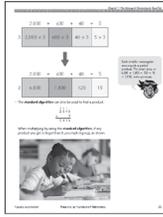
BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Explain that any numbers multiplied together are known as **factors** and that the answer that you get is known as the **product**. Tell students that when multiplying 2 times 3, 2 and 3 are both factors, and the answer they get, 6, is the product.
- Review place value with students. Write the number 2,645 into a place-value chart on the board. Tell students that this number has 2 thousands, 6 hundreds, 4 tens, and 5 ones, so the number can be represented as a sum of the values of its digits. Then, write the following on the board: $2,645 = 2,000 + 600 + 40 + 5$.



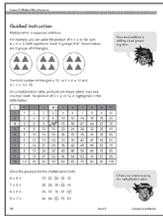
- Explain that **partial products** are simply parts of the total product. Tell students that when breaking up a factor by place value, you can multiply each digit's value by the other factor. Tell them that the product you get is called a *partial product*. Then, you add the partial products to get the total product.
 - Walk students through the parts of the problem $2,645 \times 3$, pointing out the partial products and the final product.
- Review the concept of area with students. Explain that any area can be divided into smaller areas. Ask students to tell you what they know about the sum of these smaller areas. Explain that an **area model** can be used to represent smaller areas of a total area, just like it can be used to represent partial products of a total product.
 - Walk students through the parts of the problem in the area model. Point out that the smaller areas in the second part of the model directly align with the smaller areas in the first part of the model shown above. So, for example, 1,800 is the partial product for the area represented by 600×3 .
- Explain that the **standard algorithm** for multiplying numbers is a shortcut method used to find a product. Write the problem on the board and show that the 3 is multiplied by each digit in 2,645. Point out the cases of regrouping and the need to add the number that is carried after calculating a product.



GUIDED INSTRUCTION

Guide students through each activity. Read and discuss all the tips in conjunction with the related activities.

- Have students look at the expressions 3×4 and $4 + 4 + 4$, the words *3 groups of 4*, and the illustration of 3 groups of 4 triangles. Ask them to describe how the different representations are similar. Students may say that they each represent groups, with the same number in each group, that they each show 4 added 3 times, or that each representation shows a total of 12.
- Point to the multiplication table and use your pen to show how the row for 3 and the column for 4 intersect at the value 12. Explain that any product from 1 to 100 can be found with this table by finding the intersection of the factors, represented by a row and a column. Have students use their knowledge of the multiplication facts to circle the products for the four multiplication problems given below the multiplication table. Then have them use the multiplication table to check their answers.



Common Errors

Some students may use the wrong row and/or column when finding a product by using the multiplication table. Suggest that students use a pencil to trace the correct row and column.

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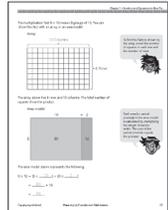
Common Error Analysis

Part 2

Student Lesson

Lesson 4 • Multiply Whole Numbers

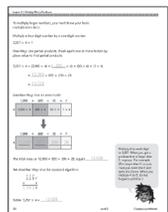
- Move on to modeling the problem 8×12 by using an array, an area model, and an equation. Explain that although they may know the product of 8×12 , it can be easily represented using an array or an area model.
- Review the concept of an array, explaining that it represents groups of objects arranged in a rectangle. The length and width of an array represent the factors in a multiplication problem, and the total number of objects represents the product. Describe how the array represents the product 96.
- Point to the area model. Explain that the factor 12 has been broken up by place value as $10 + 2$, so that sum appears along the top of the model. The other factor, 8, appears along the left side. The total area of the rectangle has been divided into two smaller areas, one with an area equal to 8×10 , or 80, and the other with an area equal to 8×2 , or 16. The sum of $80 + 16 = 96$, so the area model also shows the product 96.
- Have students fill in the blanks to complete the equation that shows the same process for multiplying using partial products.



Common Errors

Some students may add 8 plus 10 and 8 plus 2 instead of multiplying 8 times 10 and 8 times 2. Remind students that area is calculated as length times width.

- Introduce the four-digit by one-digit multiplication problem $3,257 \times 4$.
 - Have students fill in the blanks to complete the equation that shows the process for multiplying using partial products. Remind them that the factor 3,257 has been broken up by place value, so it has been broken up as the sum of the values of its digits.
 - Have students use their understanding of the previous area model to complete the area model for $3,257 \times 4$. Make sure students understand that each smaller area in the second part of the model directly matches the smaller area in the first part of the model above. Clarify that the first missing smaller area equals the partial product 3,000 \times 4.
- Have students compare the answers from the equation and area model to make sure that the products are the same.
- Finally, provide a step-by-step explanation of how to solve by using the standard algorithm. Guide students to discover that with the standard algorithm, the partial products are continuously added to give the product. So, as you go to the next step of multiplying, you are adding the result to the previous step. Be sure students understand that any product larger than 9 will not fit in a spot and must be regrouped. Also, be sure that students realize that the number carried must be added when finding each product. Have students finish the problem and then compare this product to the products found by using the previous two approaches.



Level D

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Common Errors

Some students may incorrectly multiply when multiplying 4 by a multiple of 10. Have students first find the product of 4 and the non-zero digit of the other factor and then count the number of zeros in that other factor and add them to the end of the product. For example, when multiplying 50×4 , they should first multiply 5×4 and then add a 0 to get the product 200.

- Introduce the two-digit by two-digit multiplication problem 58×69 .
 - Have students fill in the blanks to complete the equation that shows the process for multiplying using partial products. Remind them that the factors 58 and 69 have been broken up by place value, so each factor has been broken up as the sum of the values of its digits.
 - Have students use their understanding of finding partial products by using an area model to complete the area model for 58×69 . Make sure that students understand the dimensions of each smaller rectangle. For example, the smaller rectangle on the top row of the model has dimensions of 50 and 9, so the area, or partial product, is calculated as 50×9 .
 - Have students compare the answers from the equation and area model to make sure that the products are the same.
- Finally, provide a step-by-step explanation of how to solve using the standard algorithm. Be sure that students notice that with multiplication of two-digit numbers, they will get two rows of partial products that need to be added. Point out the 0 placeholder and ask students to explain why they think that it is necessary.
- Have students compare the rows from the standard algorithm output to the areas in the area model. Facilitate a discussion to guide students to discover that the rows represent the partial products for the sum of 9 times 50 and 9 times 8 and the sum of 60 times 50 and 60 times 8.

Common Errors

Students may multiply the wrong numbers when using the area model. You might have students cover the other parts of the area model with paper so that they focus only on one smaller area at a time.

Part 3

Student Lesson

Guidance included for each activity

Guided Instruction
Independent Practice—Two Levels
Exit Ticket

Lesson 4 • Multiply Whole Numbers

INDEPENDENT PRACTICE

Practice 1 Questions

- Read the questions aloud and have students select or provide the answers independently. Review the answers.

Independent Practice
Answer the questions that follow.

Practice 1

1. Which number has factors 5 and 9?
 A. 45
 B. 30
 C. 40
 D. 60

2. What is the product?
 8×600
 A. 480
 B. 4800
 C. 48000
 D. 480000

3. John is asked to multiply 342 by 2. He is to show the first step of finding the product.

$4200 \times 2 = 8400, 20 \times 2 = 40, 2 \times 2 = 4$

1. Fill in the area in the area model to show the partial products of 48×12 .

2. Cindy has 85 pages of notes. There are 25 notes on each page. How many notes does she have in all?
 A. 85
 B. 180
 C. 1500
 D. 1800

Practice 2

1. What is the product?
 $325 \times 4 = \underline{\hspace{2cm}}$

2. John is asked to multiply 342×4 , which correctly shows the product as a sum of partial products?
 A. $1368 = 28 \times 48 + 8$
 B. $1368 = 280 + 48 + 8$
 C. $1368 = 2800 + 48 + 8$
 D. $1368 = 280 + 48 + 8$

Practice 2 Questions

- Ask students to read the questions to themselves and select or provide the answers independently. Review the answers.

1. Fill in the area in the area model to show the partial products of 48×12 .

2. Cindy has 85 pages of notes. There are 25 notes on each page. How many notes does she have in all?
 A. 85
 B. 180
 C. 1500
 D. 1800

Practice 2

1. What is the product?
 $325 \times 4 = \underline{\hspace{2cm}}$

2. John is asked to multiply 342×4 , which correctly shows the product as a sum of partial products?
 A. $1368 = 28 \times 48 + 8$
 B. $1368 = 280 + 48 + 8$
 C. $1368 = 2800 + 48 + 8$
 D. $1368 = 280 + 48 + 8$

1. A school principal purchased 45 books that each cost \$22 for the school library. How much does the principal spend?
 A. \$990
 B. \$900
 C. \$90
 D. \$200

2. Hannah multiplied 23 times 24 by using the standard algorithm. Her work is shown below.

Which statement is true?
 A. She forgot to carry.
 B. She multiplied the ones digit in the second line.
 C. She did not add correctly.
 D. She did not multiply the tens.

3. Which of the following shows the partial products you get when multiplying 27×34 ?
 A. $108 + 81 + 42 + 10 = 241 + 4 = 245$
 B. $108 + 81 + 42 + 10 + 10 = 241 + 20 = 261$
 C. $108 + 81 + 42 + 10 + 10 + 10 = 241 + 30 = 271$
 D. $108 + 81 + 42 + 10 + 10 + 10 + 10 = 241 + 40 = 281$

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Lesson 4 Copy Master 2

Name _____ Date _____

Multiply a Two-Digit Number by a Two-Digit Number

Multiplication Problem: _____ \times _____

Break Apart Both Factors by Place Value:

_____ = _____ + _____

_____ = _____ + _____

Find Partial Products:

_____ \times _____ = (_____ \times _____) + (_____ \times _____) + (_____ \times _____) + (_____ \times _____)

_____ = _____ + _____ + _____ + _____

Multiplication Problem: _____ \times _____

Break Apart Both Factors by Place Value:

_____ = _____ + _____

_____ = _____ + _____

Find Partial Products:

_____ \times _____ = (_____ \times _____) + (_____ \times _____) + (_____ \times _____) + (_____ \times _____)

_____ = _____ + _____ + _____ + _____

40 Level D

Lesson 4 Copy Master 1

Name _____ Date _____

Multiply a Four-Digit Number by a One-Digit Number

Multiplication Problem: _____ \times _____

Break Apart Larger Factor by Place Value:

_____ = _____ + _____ + _____ + _____

Find Partial Products:

_____ \times _____ = (_____ \times _____) + (_____ \times _____) + (_____ \times _____) + (_____ \times _____)

_____ = _____ + _____ + _____ + _____

Multiplication Problem: _____ \times _____

Break Apart Larger Factor by Place Value:

_____ = _____ + _____ + _____ + _____

Find Partial Products:

_____ \times _____ = (_____ \times _____) + (_____ \times _____) + (_____ \times _____) + (_____ \times _____)

_____ = _____ + _____ + _____ + _____

Measuring Up Foundations • Mathematics 39

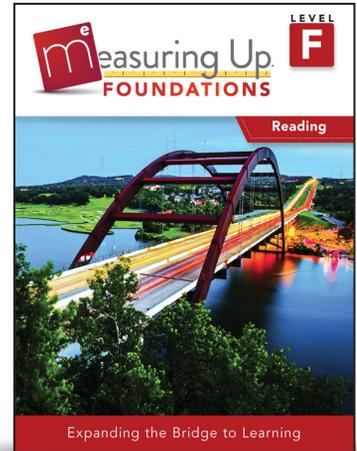
Student Edition

Reading

The four-part lesson plans encompass the research-based components required for intense instruction.

Accelerate achievement with:

- Single skill focused lessons with explicit instruction.
- Reduced complexity of skill and task, aligned to grade-level standards.
- Reduced readability increases strategically throughout lessons.
- Scaffolded support.
- Differentiated instruction.
- Assessments to monitor learning.



Strategically placed thinking questions focus learning.

Lesson 1 Long and Short Vowels

Introduction

What Will I Learn?

- What are the vowel sounds?
- How do I know a long vowel sound from a short vowel sound in a word?

Words have long and short vowel sounds. Knowing the sounds and the letter patterns that make the sounds helps you read better.

Break Down the Skills

The alphabet has 26 letters. The letters **a, e, i, o,** and **u** are **vowels**. All of the other letters in the alphabet are called **consonants**.

Each vowel has a **long vowel sound** and a **short vowel sound**. The long vowel sound is the same as the vowel's name. Short vowel sounds are different from the vowel's name. Here are some words that have short vowel sounds.

cap	mat	dog	log	met
sit	dip	run	bun	pen

The letters in the words above all begin with a consonant, have one vowel in the middle, and end with a consonant. These words follow a **pattern** called consonant-vowel-consonant, or **CVC**. The vowel sound in CVC words is always short.

When a word has two consonants with a vowel in the middle, it has a short vowel sound.

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The clean page layout eliminates distractions.

Examples and illustrations support and clarify meaning.

Guided Instruction



Read the words below and answer the questions.

- | | | | |
|----------|--------|--------|-----------|
| setting | market | plane | circle |
| retrieve | unpack | recite | construct |
| arrange | debate | streak | float |

Guided Questions

Circle the words with the short vowel sounds.

Box the words with the long vowel sounds.

Underline the words with vowel teams.

- 1 What is the vowel sound in the word **leak**? How do you know?

- 2 What is an **r-controlled vowel**? Write two words with an r-controlled vowel.

Measure Kids provide hints, tips, and guidance to keep learners engaged.

Independent Practice

Answer the questions that follow.

Practice 1

- 1 Which word has the same vowel sound as the word **blade**?
 A park C table
 B bowl D perfect
- 2 Which word has an **r-controlled vowel** sound?
 A rope C bridge
 B drive D turtle
- 3 Which word has a silent **e**?
 A perfect
 B reply
 C bake
 D garden
- 4 Which words have the same **long vowel** sound?
 A **gift** and **bike**
 B **mark** and **lake**
 C **roam** and **hope**
 D **seen** and **shed**
- 5 Circle the words with the **long e** sound.
 listen able beach enjoy greedy

Remember, when the **r** comes **after** a vowel, the vowel has an **r-controlled** sound.

Remember the rule for silent **e**.

Recall the different ways letters can make a long vowel sound.

Set clear learning goals and activate background knowledge.

Provide context for new learning and academic vocabulary.

Varied question types allow students to interact with skills in multiple ways.

Exit Ticket offers a quick check of understanding.

Practice 2

- 1 Which phonics rule applies to the word **tape**?

- 2 Circle the words with **vowel teams**.
party **circus** **teacher** **freedom** **after**
- 3 Which word has the same vowel sound as **crept**?
 A seed
 B castle
 C peach
 D better
- 4 Which words have the same vowel sound?
 A **green** and **leaf**
 B **listen** and **life**
 C **mint** and **bride**
 D **yellow** and **yard**
- 5 Match the words with the vowels.
 short o sound bake
 short i sound creek
 vowel team drop
 silent e this

Remember vowel teams are two vowels next to each other that make one sound.

Read each word. Listen to the vowel sounds and look at the vowel patterns you know.

Exit Ticket

Now that you know about long and short vowels, put the words below in the correct side of the table. Cross out each word as you use it.

- | | | | | |
|------|--------|--------|--------|--------|
| ripe | meat | listen | shrub | bring |
| date | picnic | float | rebate | rabbit |

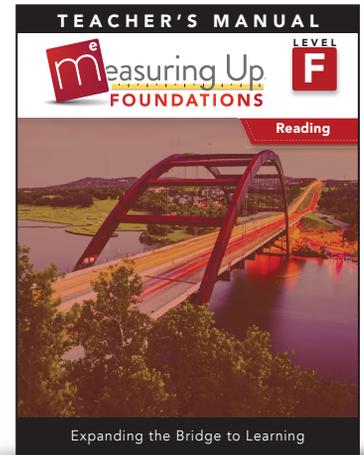
Short Vowel Sounds	Long Vowel Sounds

What word can you add to the **short vowel** side of the chart?

Unparalleled Teacher Support

Reading

The Teacher's Manual provides a comprehensive approach to instruction with an easy-to-use lesson format allowing for customized and differentiated instruction for struggling students and English Learners.



TEACHER GUIDE

Lesson 1 Long and Short Vowels

At-a-Glance		
Learning Objectives	Why Students May Struggle	
<ul style="list-style-type: none"> Distinguish long from short vowel sounds. Identify and read r-controlled vowel words. Decode multisyllable words with vowel teams. 	Vowel sounds are spelled in many different ways, so students may struggle to determine the difference between short and long vowel sounds.	
Academic Vocabulary		
vowel	consonant	long vowel sound
short vowel sound	pattern	CVC
silent e	vowel team	r-controlled vowel

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Before the lesson, display the alphabet. Ask students if they can identify the vowels and the consonants.
- Put the vowels, *a, e, i, o, and u* on the board. Activate students' prior knowledge by asking them what sounds each of these letters can make. Then ask them to brainstorm what words they already know with these letters. Guide them to identify whether the words they named have the long or short vowel sound.
- Have students say single-syllable CVC words such as *cat, bin, and cup*. See if they can spell the word as you write. If not, spell for them. Write the words on the board as students call them out.
- Repeat the above routine with long vowel words such as *kite, same, and hope*.

EXPLICIT INSTRUCTION

- Review the long and short sound of each vowel. Explain that students will learn different ways to spell vowel sounds.
- Start with short vowel sounds in words. Write words with the simple CVC pattern, and guide students to blend and read the words with you. Point out that the short vowel comes between two consonants.

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Measuring Up Foundations • Reading

Each lesson guide provides full-support, front-loading, and content-specific vocabulary.

Strategies are provided to address the specific needs of struggling students and English Learners.

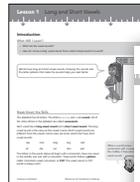
Quick view of lesson makes planning easy.

Set learning goals and foster meaningful connections to new learning.

Reduced readability increases strategically throughout lessons.

In Mathematics, error analysis provides insight into areas of learning difficulties.

Suggestions are provided for students who exhibit common errors.



Lesson 1 • Long and Short Vowels

- After students are confident with short vowel sounds, move on to long vowel sounds. Start with one-syllable words such as *cake, bike, see, and go*. Have students recognize that the vowels say their own name in these words.
- Explain that sometimes an *e* on the end of the word changes the vowel from a short vowel sound to a long vowel sound. Give several examples such as *cap* and *cape, bit* and *bite, and hug* and *huge*.
- Explain that sometimes two vowels that are together in a word make a long vowel sound. In these words the first vowel says its name and the second vowel is silent. Give examples such as *rain, boat, and team*.
- Write several long vowel words on the board including both CVCe and CVVC patterns such as *hope* and *float*. Say each word, stretching out the sounds. Point out that the long vowel sound is the same as its name.
- Write several words with r-controlled vowels, such as *bird, hurt, and smart*. Ask students what they notice about the vowel sound in each word. Underline the *r* in each word. Point out that it comes after the vowel and changes its sound.
- Point out that students can use what they know about vowels to break longer words into parts they know and read the word. Write several multisyllable words. Ask students to identify vowel patterns they know to help them break the words into parts and read the words.

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Tell students that all the letters in the alphabet are either **vowels** or **consonants**. The letters *a, e, i, o, and u* are vowels. All the other letters are consonants. They are all units of sound.
- Explain that each vowel has a **long vowel sound** and a **short vowel sound**. The long vowel sound is the same as the vowel's name; the short vowel sound is different. Read the short vowel words.
- Guide students to look for any **patterns** they may see in the words. The pattern, or repeated form, is that the words begin with a consonant, have a vowel in the middle, and end with a consonant. Tell them that these are called consonant-vowel-consonant, or **CVC**, words. The vowel in CVC words makes a short vowel sound.



Practice 2 Questions

- Ask students to read the questions and select the answers independently. Review the answers and provide reminders and reteach as needed.



EXIT TICKET

- Have students fill in the chart by writing new long and short vowel words using vowel patterns they have learned.



ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- Have students make a T-chart on a board, piece of paper, or in their notebook. Label one side "short vowel sounds" and the other "long vowel sounds." Have students collect several objects from around the room. Then have them name each item, identify the vowel sound in the word, and write the word on the T-chart on the correct side. If the word has multiple syllables with both long and short sounds, write the word on both sides of the chart.
- Give students a highlighter or colored pencil. Have them pick five or six words from a text and highlight the vowel they see in each word. Ask them if they know the word and if they can tell you if the vowel makes a long or short sound.
- Have students make memory cards using vowel sound labels such as "short a," "long a," "short e," and "long e." Then have them write some short and long vowel words on cards so that each vowel sound card has a match. See examples below. Next, have them use the cards to play a memory game with a partner.
 short a – path, long a – plate, short e – pen, long e – green, short i – chin, long i – nice

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Measuring Up Foundations • Reading

5

Two sets of practice questions provide instructional options for supported and independent practice.

Additional teaching support for students who continue to struggle is provided at the end of every lesson.

Help English Learners with language frames and strategies to develop oral language proficiency.

Support learning with graphic organizer reproducible masters. Available in every lesson, they aid mastery and foster the transfer of skills across the curriculum.

Lesson 1 Copy Master

Name _____ Date _____

On Your Own

For each letter, write words with long and short vowel sounds.

Long and Short Vowel Words		
Letter	Long Vowel Sound	Short Vowel Sound
a		
e		
i		
o		
u		

Measuring Up Foundations • Reading

7

Fully developed instructions support master teachers and novices alike.

Each lesson guide provides comprehensive directions for assigning and supporting practice.

Differentiate for English Learners

English learners may have a difficult time with English vowel sounds because the vowel letters may have different names and sounds in their home language. For example, the *a* sound in the word *cat* and the *u* sound in the word *but* do not exist in Spanish. It might benefit them to work in pairs or groups to create a list of words with these sounds. Read the words aloud with them to hear and practice the pronunciations.

GUIDED INSTRUCTION

Guided Reading Activity

- Some students may benefit from hearing you read the activity aloud. If necessary, have students follow along as you read aloud. Otherwise, direct students to read the activity quietly to themselves.

Guided Reading Questions

- Read the Guided Reading Questions aloud and have students answer them. Discuss the answers orally.



Differentiate for Struggling Readers and English Learners

In the multisyllable words, highlight or underline the vowel or vowel team on which students are focusing. For example, in the word *setting*, highlight the *e*. In the word *recite*, highlight the *i*. If students struggle to come up with r-controlled vowel words on their own, offer them some choices and have them identify the words with the r-controlled vowels. Practice saying the words and the vowel sounds together and pointing to where the *r* comes after the vowel in the word.

INDEPENDENT PRACTICE

Practice 1 Questions

- Read the questions and answer choices aloud as students select the answers. Review the answers and provide reminders and reteach as needed.



4

Level F

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Scope of Skills



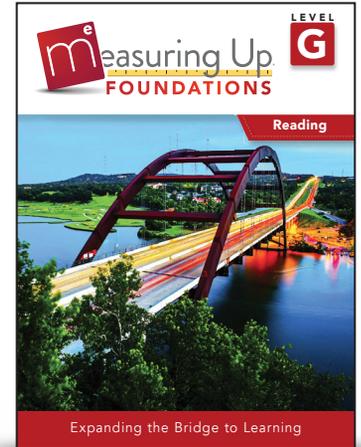
Reading

Focused Areas	Phonics & Fluency	Reading Literature	Literary Analysis & Response
Level F Grade 6	<ul style="list-style-type: none"> • Long & Short Vowels • Phonics • Prose and Poetry with Purpose & Expression • Context Clues 	<ul style="list-style-type: none"> • Textual Evidence • Theme or Central Idea • Characters & Plot • Figurative & Connotative Meanings 	<ul style="list-style-type: none"> • Text Structure • Point of View • Compare & Contrast Different Versions • Compare & Contrast Genres
Level G Grade 7	<ul style="list-style-type: none"> • Long & Short Vowels • Phonics • Prose and Poetry with Purpose & Expression • Context Clues 	<ul style="list-style-type: none"> • Textual Evidence • Theme or Central Idea • Characters & Plot • Figurative & Connotative Meanings 	<ul style="list-style-type: none"> • Text Structure • Point of View • Multimedia • Different Accounts of the Same Period
Level H Grade 8	<ul style="list-style-type: none"> • Long & Short Vowels • Phonics • Prose and Poetry with Purpose & Expression • Context Clues 	<ul style="list-style-type: none"> • Textual Evidence • Theme or Central Idea • Dialogue & Plot • Figurative & Connotative Meanings 	<ul style="list-style-type: none"> • Text Structure • Point of View • Multimedia • Different Accounts of the Same Period

Reading Informational Texts	Analyzing Informational Texts
<ul style="list-style-type: none"> • Cite Evidence • Central Ideas & Key Details • Meaning of Words and Phrases 	<ul style="list-style-type: none"> • Text Structure • Point of View • Different Media & Format • Argumentative Text • Compare Presentations on the Same Subject
<ul style="list-style-type: none"> • Cite Evidence • Central Ideas & Connections • Word Choice 	<ul style="list-style-type: none"> • Text Organization • Author's Point of View • Compare Multimedia • Argumentative Text • Two or More Authors on the Same Subject
<ul style="list-style-type: none"> • Cite Evidence • Central Ideas & Connections • Word Choice 	<ul style="list-style-type: none"> • Text Organization • Author's Point of View • Different Mediums • Argumentative Text • Different Texts on Similar Topics

Student Sample

Reading



Lesson 2 Phonics

Introduction

What Will I Learn?

- What are syllables?
- How can I use letter sounds, syllables, and word parts to read new words?

You can put together what you know about letter sounds and word parts to read new words.



Break Down the Skills

The 26 letters of the alphabet include **vowels** a, e, i, o, u and **consonants**. These letters make 44 different sounds, or **phonemes**, that are combined to make words. Review each phoneme in the chart below. Look at the letter, read the word, and listen for the sound.

b bus	d dog	f farm	g gate	h hat	j jam	k car	l leaf	m man
n nail	p pat	r run	s sun	t top	v van	w wish	y yo-yo	z zip
ng sing	wh what	zh treasure	ch chin	sh shoe	th the	th third	a ant	e egg
i ink	o odd	u run	ae rain	ee tree	ie light	oa boat	ue uniform	oo mood
oo book	ou cow	oi boy	or fork	ar car	ear spear	€		

Part 1

Introduction and Breaking Down the Skill

Guided Instruction



- cheetah kangaroo wombat mouse puppy
- popular reverberate challenging unfamiliar disperse
- happiness restless flavorful backdrop mismanage

Guided Questions

In this row, circle the words with only two syllables.

In this row, box the words that have a prefix.

In this row, underline the words with a suffix.

In this row, circle the words with three syllables.

Part 2

Guided Instruction

Independent Practice

Answer the questions that follow.

Practice 1

1 How many syllables does **resentful** have?

- A one C three
B two D four

2 Break the word **comforting** into its syllables.

--	--	--

3 What does the word **prejudge** mean?

- A to not judge
B to judge before
C to judge once again
D to judge in the past

4 How many syllables does **fantastic** have?

- A two
B three
C four
D five

5 Circle the words that have only three syllables.

- calibrate retake transplant interpreter disgusted

What does the prefix **pre-** mean?



Part 3

Independent Practice—Two Levels

Part 4

Exit Ticket

Chapter 1 • Phonics and Fluency

Some letters make more than one sound.

- Vowels can be long (**rain, tree, light, boat, uniform**) or short (**ant, egg, ink, odd, run**).
- Some consonants also make more than one sound, such as **g (gift, giant)** and **c (cat, cent)**.

Some groups of letters combine to make a single sound.

- Digraphs** are consonant groups that make one sound (**ch, sh, th, wh, zh, ng**).
- Vowel teams** are vowel groups that make one vowel sound (**ae, ee, ie, oa, ue, oo, ou, ow, oi, oy**).
- R-controlled vowels** are vowels followed by letter **r (or, ar, er, ear, air)**.

All words are made up of one or more **syllables**. A syllable is a spoken word part, like a beat, that contains one vowel sound. Tap your desk as you say the syllables in the following words.

in / side el / e / phant win / dow

Each syllable in a word has one vowel sound.

- Chat** has one vowel and one syllable.
- Clean** and **plate** each have two vowels that make one sound and one syllable.
- Contest** has two vowels and two syllables (**can / test**).
- Complete** also has two syllables (**com / plete**). The second syllable has two vowels, but the final **e** is silent, so it only has one vowel sound.

When you see a long word you do not know, do the following.

- Break the long word into syllables.

calculator → cal / cu / la / tor

- Ask what the vowel sound is in each syllable.

cal / cu / la / tor

- Blend the syllables to read the word.

cal cu la tor

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Combine all you know about letters and sounds to help you read new words.



A syllable has one vowel sound. Remember, sometimes two vowels make only one sound.



If a syllable ends in a consonant, it often has a short sound. If it ends in a vowel, it often has a long sound. If it ends in vowel + r, it has an r-controlled vowel sound.



Lesson 2 • Phonics

An **affix** is a group of letters added to a **root** word, or main word, in order to change its meaning. A **prefix** is added to the beginning of a word. A **suffix** is added to the end of a word. If you know the affix and the root, you can read the longer word.

unlike = un + like
prefix root

likeable = like + able
root suffix

unlikeable = un + like + able
prefix root suffix

Look for affixes and roots to help you read longer words.

You know what these affixes mean, finding them can also help you understand the meaning of an unknown word. For example, if you know prefix **un-** means **not** and the suffix **-able** means **able to be**, then you know that **unlikeable** means **not able to be liked**.

Here are some more affixes and their meanings.

Prefix	Meaning	Suffix	Meaning
dis-	not, separate	-est	most
ex-	without, former	-ful	full of
in-	into, without	-ic	relating to
pre-	before	-less	without
re-	again	-ness	being, having

You can also figure out how to read a word by using **context**, or the words around it. Some words are spelled the same but have different meanings.

He wiped a **tear** from his eye. There is a **tear** in my jeans.

In the first sentence, **tear** means a drop of liquid from the eye. So you know the vowel sound rhymes with **dear**.

In the second sentence, **tear** means a rip. So you know the vowel sound rhymes with **air**.

Level G Copying is prohibited.

As you read, ask **what an unknown word means**. The meaning is a clue to the pronunciation of the word.



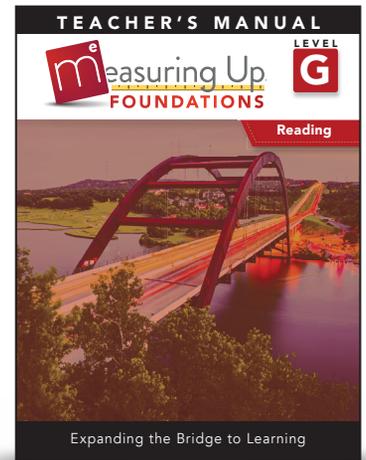
Exit Ticket

Now that you understand phonics and syllables, write how many syllables each word has.

Word	Syllables
exhale	
fisherman	
magical	
rewrite	
compost	
skeptical	
forge	
escalator	
intimidating	

Teacher Support

Reading



Lesson At-a-Glance Review

- Learning objectives
- Academic vocabulary
- Why students may struggle

Part 1

Introduction and
Breaking Down the Skill

Activating prior
knowledge specific to
the skill

Explicit instruction—
pre lesson

TEACHER GUIDE

Lesson 2 Phonics

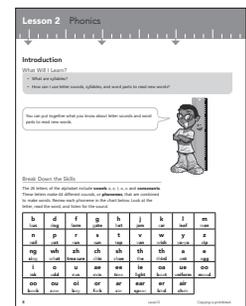
At-a-Glance

Learning Objectives		Why Students May Struggle	
<ul style="list-style-type: none"> • Review phonics skills used to read longer words. • Use syllables and affixes to determine the meaning and pronunciation of an unknown word. • Read multisyllabic words in and out of context. 		Students may struggle to understand that syllables are a function of sound and not text. They may also have difficulty isolating each syllable to a single sound.	
Academic Vocabulary			
vowel	consonant	phoneme	digraph
vowel team	r-controlled vowel	syllable	affix
root	prefix	suffix	context

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Display a short passage or sentence that contains at least one challenging longer word. Give partners two minutes to read it and discuss strategies they used to read the challenging word. Then ask them to share what they did with the class. Did they break the word into smaller parts they know? How did they use what they know about letter sounds to read the word? Did they use the context of the sentence or passage to help them figure out the word's meaning or pronunciation?
- Write three words on the board that share a prefix (for example, *retake*, *reprint*, and *reread*). Ask students what they have in common both in spelling and in meaning. Repeat with three words that share a suffix.



EXPLICIT INSTRUCTION

- Tell students that as they read, they will come across words with which they may not be familiar. Explain that in this lesson, they will learn how to use their knowledge of phonics to break large words down into smaller parts to read them. Point out that doing so will help them pronounce the word, and sometimes it may even help them determine the word's meaning.
- Briefly review the phonics skills students already know by displaying some different words that contain a variety of phonemes and spellings, and ask students to read them. If students have trouble with certain words, review the phonics skills necessary for reading those words.

- Introduce syllables orally so students learn to think of them as units of sound and not text. Say a word, then have students repeat it, clapping once for each vowel sound they hear. Begin with one- and two-syllable words, increasing to longer words as appropriate. Some specific words to consider for use throughout the following steps are *mishap*, *catalog*, *plate*, *mistake*, and *contaminate*.
- On the board, write some of the words students practiced orally. Using a different color, draw lines between the syllables as students repeat the words aloud and clap the syllables. Point out that each syllable has one vowel sound. They can determine the number of syllables in a word by counting the vowel sounds they hear. Make sure they understand this is the number of vowel sounds, not the number of vowel letters in the word. For example, the letters in a vowel pair or CVCe pattern make one vowel sound and stay together in the same syllable.
- With syllables marked on each word on the board, review phonics rules at the syllable level. For example, point out the word *catalog*. Remind students that both the *a* in *cat* and the *o* in *log* are short. Help them apply the same rule to *mishap*. Then review silent *e* with *plate* and *mistake*. Show students how these can function together in a longer word like *contaminate*.
- Explain that another way to break words into manageable parts is to look for affixes and root words. Point out that there are two kinds of affixes: prefixes and suffixes. Provide examples of both. Explain that if students can read the affix and the root word separately, they can read the longer word.
- Emphasize that affixes have the specific function of changing the meaning of a word. Show multiple examples of one prefix or suffix to demonstrate, such as *miscalculate*, *misinform*, and *misjudge*, and discuss how the affix changes the meaning of each word in a similar way.
- Explain that another way to figure out how to read a word is to consider the text around it and figure out its meaning. This is especially helpful for words that are spelled the same but can have different pronunciations and meanings in different contexts. Write these sentences: *Set the timer for one minute. There was a minute amount of gold dust in the sand.* Point out that *minute* has short vowel sounds when it means “a unit of time” and long vowel sounds when it means “a very small amount.”

Explicit instruction—
during lesson

Front loading of
concept-specific
vocabulary

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Remind students that the alphabet has 26 letters, which include **vowels** (*a, e, i, o, u*) and **consonants**. These letters make 44 different sounds, or **phonemes**. Review the phoneme chart with students.

Lesson 2 Phonics

Introduction

What Will I Learn?

• How to pronounce words.

• How to use letter sounds, syllables, and word parts to read new words?

How can you figure out how to read a word you have never seen before? Look at the picture to help you think.

Break Down the Skills

The letters of the alphabet include sounds called **vowels** (a, e, i, o, u) and **consonants**. There are 44 different sounds, or **phonemes**, in the alphabet. Review each phoneme in the chart below. Look at the letter and think about the sound it makes.

b	d	f	g	h	j	k	l	m
n	ng	ph	qu	r	s	sh	ss	t
th	uh	uh	ch	sh	th	th	sh	z
z	zh							
l	s	ss						
ss								

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Measuring Up Foundations • Reading

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- If time allows, have students complete the On Your Own chart at the end of these notes.
Answer key: *air/plane, rain/drop, e/e/phant, dish/wash/er, ba/by/sit/ter, coun/ter/bal/ance*

On Your Own

Word	Phonemes	Syllables	Meaning
air	ayr	1	the gas that we breathe
plane	playn	1	a vehicle that flies in the sky
rain	rayn	1	water falling from the sky
drop	drap	1	a small amount of liquid
phant	fant	1	a large animal that lives in the desert
dish	dish	1	a shallow container for food
wash	wash	1	to clean something with water
er	er	1	a person who does a job
ba	ba	1	the first part of a word
by	by	1	near or close to
sit	sit	1	to rest on one's buttocks
ter	ter	1	the end part of a word
bal	bal	1	the part of a word that comes before the ending
ance	ans	1	the part of a word that comes after the ending

Struggling student and
English learner support
embedded within lesson

Differentiate for Struggling Readers

Provide extra time working with syllables orally before moving to print. After having students clap the syllables in several words, reinforce the concept by introducing the “hand on chin” method. In this technique, have students place their hands on their chins as they say a word aloud. Each time their chins move down, this is one syllable. Struggling readers may also benefit from the use of compound words when learning to identify syllables.

Differentiate for English Learners

Learning about syllables can help English learners to understand and internalize the rhythm of English and stressed and unstressed syllables, an important component of developing fluency. Model reading multisyllabic words and clapping the syllables; clap loudly for stressed syllables and softly for unstressed syllables. Have students repeat after you.

Scope of Skills



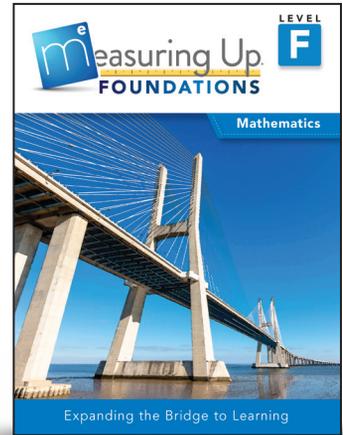
Mathematics

Focused Areas	Ratios & Proportional Relationships	Expressions & Equations	Statistics & Probability
Level F Grade 6	<ul style="list-style-type: none"> • Understand Ratios • Solve Mathematical & Real-World Rate Problems 	<ul style="list-style-type: none"> • Write & Evaluate Expressions with Exponents • Understand Expression Terms & Equivalent Expressions • Generate Equivalent Expressions • Use Variables to Write Expressions for Real-World Problems • Write and Solve Equations in Mathematical & Real-World Problems • Write & Solve Inequalities in Mathematical & Real-World Problems 	<ul style="list-style-type: none"> • Recognize Possible Data with Enough Variability for a Statistical Question • Display Data Using Number Lines, Dot Plots, Box Plots & Histograms • Determine Measures of Center & Variability • Summarize Numerical Data Sets
Level G Grade 7	<ul style="list-style-type: none"> • Compute Unit Rates & Identify Proportional Relationships • Find Unit Rate in Tables, Graphs & Equations • Determine the Constant of Proportionality • Write Equations to Show Proportional Relationships 	<ul style="list-style-type: none"> • Add, Subtract, Factor & Expand Linear Expressions • Write Equations to Solve Problems • Solve & Graph Inequalities 	<ul style="list-style-type: none"> • Understand Sampling • Compare & Interpret Data Sets • Approximate the Probability of Chance Events • Understand Probability of Simple & Compound Events • Develop & Use Probability Models • Use Lists, Tables & Tree Diagrams to Represent Sample Spaces
Level H Grade 8	N/A	<ul style="list-style-type: none"> • Graph Proportional Relationships • Find Slope and Y-intercept for Similar Right Triangles • Solve Linear Equations • Solve problems Involving Systems of Equations 	<ul style="list-style-type: none"> • Create & Interpret Scatter Plots • Fit a Straight Line to a Scatter Plot & Determine Slope and Intercept

The Number System	Geometry	Functions
<ul style="list-style-type: none"> • Divide Fractions to Solve Mathematical & Word Problems • Add, Subtract, Multiply & Divide Whole Numbers & Decimals • Understand & Represent Positive & Negative Numbers • Compare & Order Rational Numbers on a Number Line & in Real-World Situations • Interpret & Order Absolute Value • Using a Coordinate Plane, Identify & Plot Ordered Pairs 	<ul style="list-style-type: none"> • Find Area & Volume • Solve Real-World Problems by Plotting Points & Using Them to Draw Polygons 	N/A
<ul style="list-style-type: none"> • Add, Subtract, Multiply & Divide Rational Numbers • Convert Rational Numbers to Decimals 	<ul style="list-style-type: none"> • Draw Geometric Shapes & Scale Drawings • Find Area & Circumference of Circles • Identify Nets for Solid Figures • Use Nets to Find Surface Areas of Solids • Solve Problems with Area, Circumference, Volume & Surface Area 	N/A
<ul style="list-style-type: none"> • Recognize & Compare Irrational Numbers • Apply Properties of Exponents to Compare Irrational Numbers • Use Exponents in Large & Small Numbers & in Scientific Notation • Use Square Roots & Cube Roots 	<ul style="list-style-type: none"> • Dilate Figures Using Coordinates • Translate Figures Using Coordinates • Rotate Figures Using Coordinates • Reflect Figures Using Coordinates • Use Angle Relationships with Parallel Lines & Triangles • Explain the Pythagorean Theorem • Use the Pythagorean Theorem to Solve Mathematical & Real-World Problems 	<ul style="list-style-type: none"> • Understand Functions • Compare Properties of Functions • Analyze & Sketch Graphs of Functions

Student Sample

Mathematics



Lesson 1 Understand Ratios

Introduction

What Will I Learn?

- How do you describe unit rates?
- How do you create tables of equivalent ratios and plot pairs on the coordinate plane?

You can use ratios to describe a school election. If you say that a person won by a vote of 37 to 26, you're using a ratio!



Part 1

Introduction and Breaking Down the Skill

Break Down the Skills

A **rate** compares two quantities with different units of measurement.

- You can write a rate in words or as a fraction.
- Here are some examples of rates.

\$10 for 5 notebooks
or
 $\frac{\$10}{5 \text{ notebooks}}$

3 cups of oats for 4 servings
or
 $\frac{3 \text{ cups of oats}}{4 \text{ servings}}$

60 miles in 2 hours
or
 $\frac{60 \text{ miles}}{2 \text{ hours}}$

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Measuring Up Foundations • Mathematics

Lesson 1 • Understand Ratios

Guided Instruction

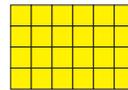
Area is a measure of the amount of space taken up by a plane figure.

One way to measure area is by using unit squares. A unit square is a square that has a side length of 1 unit.



- One way to find the area of this rectangle is by counting the number of unit squares inside it.
- Another way to find area is to count the number of unit squares in each row and column. Then multiply the number of rows by the number of columns.

The unit of a unit square can be any unit of length, such as inches or centimeters.



There are _____ unit squares in each row and each column has _____ unit squares.

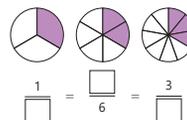
The area of the rectangle is _____ \times _____ = _____ square units, which is the same answer you get by counting.

Count the unit squares. _____ unit squares.

Some areas are fractions instead of whole numbers.

When working with fractions, it often helps to write equivalent fractions. Equivalent fractions are fractions that have the same value even though they have different numbers in them.

Use the model to fill in the equivalent fractions.



Independent Practice

Answer the questions that follow.

Practice 1

- 1 What is the ratio of shaded parts to unshaded parts?



- A 7 to 12
- B 5 to 7
- C 7 to 5
- D 12 to 7

- 2 Each place setting contains 2 forks and 1 spoon. Circle the ratios that are equivalent to the ratio of forks to spoons. Select the three correct answers.

$\frac{4}{2}$ $\frac{3}{2}$ $\frac{6}{3}$ $\frac{4}{4}$ $\frac{4}{5}$ $\frac{8}{4}$

- 3 Complete the table to show ratios that are equivalent to $\frac{3}{4}$.

First Value	Second Value
3	4
	20

Start by finding the unit rate of forks to spoons.

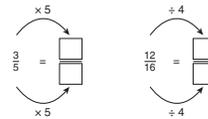


Part 3

Independent Practice— Two Levels

When you do not have images to look at, you can multiply or divide the numerator and denominator by the same number to find an equivalent fraction.

Fill in the missing numbers to find each equivalent fraction.



To write equivalent fractions, do to the denominator what you do to the numerator.



Equivalent fractions: $\frac{3}{5}$ and $\frac{12}{16}$ and $\frac{ }{ }$

You can use what you know about fractions to describe rates. A rate compares two quantities that are measured in different units.

Write a rate for each example.

Elijah read 40 words in 2 minutes. $\frac{ }{ }$ words / $\frac{ }{ }$ minutes

Gasoline costs \$16 for 5 gallons. $\frac{ }{ }$ dollars / $\frac{ }{ }$ gallons

A unit rate is a rate in which the denominator is 1 unit. To calculate a unit rate, divide one quantity by the other.

The Li family drove 124 miles in 4 hours. Fill in the missing values to find the unit rate.

$$\frac{124 \text{ miles}}{4 \text{ hours}} = \frac{ }{4} = \frac{ }{1} \text{ miles per hour}$$

Complete the table to fill in each unit rate.

Rate	Unit Rate
$\frac{48 \text{ beads}}{6 \text{ bracelets}}$	$\frac{ }{ }$ beads / $\frac{ }{ }$ bracelet
$\frac{60 \text{ kilometers}}{5 \text{ hours}}$	$\frac{ }{ }$ kilometers / $\frac{ }{ }$ hour



Part 4

Exit Ticket

Exit Ticket

A snowstorm lasted for 5 hours. When the storm ended, 10 inches of snow had fallen. The same amount of snow fell each hour.

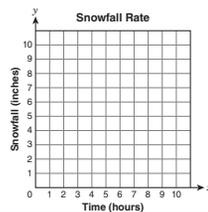
What is the unit rate of snowfall in inches per hour?

_____ inches per hour

Complete the ratio table to show the number of inches of snow during each of the first 4 hours.

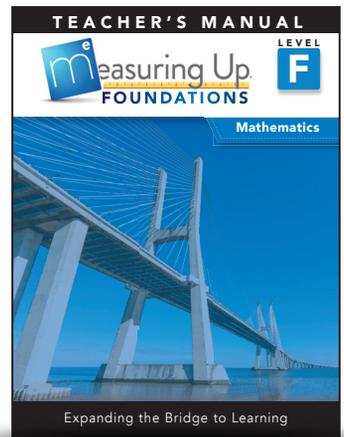
Time (hours)	Snowfall (inches)
1	
2	
3	
4	
5	10

Create ordered pairs from the ratio table and plot them on the coordinate plane.



Teacher Support

Mathematics



TEACHER GUIDE

Lesson 1 Understand Ratios

At-a-Glance	
Learning Objectives <ul style="list-style-type: none"> Describe unit rates. Create tables of equivalent ratios and plot pairs on the coordinate plane. 	Review Skills <ul style="list-style-type: none"> Find area using unit squares. Find equivalent fractions.
Academic Vocabulary <p>rate unit rate ratio equivalent ratio ordered pair x-coordinate y-coordinate origin</p>	Why Students May Struggle <p>Students may list ratios that are not equivalent before finding ordered pairs.</p> <p>Students may add or subtract instead of multiplying or dividing to find equivalent ratios.</p>

WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Draw and shade a two-dimensional shape on the board, such as a square or rectangle. Remind students that the size of the shaded space is area.
 - Invite students to brainstorm examples of real-life situations involving area, such as the area of a wall for painting and the area of a floor for carpeting.
 - Remind students that one way they learned to measure area is by using unit squares. Distribute prepared unit squares to pairs or small groups of students. Have them use the unit squares to measure an area, such as the area of a notebook cover or desktop. Allow students to share their results, and encourage them to use correct units depending on the size of each unit square. Invite volunteers to explain how they found area, and lead students to recognize that they can use multiplication. As needed, model how to count unit squares for length and width and use them to find the product.
- Remind students that they have worked with fractions.
 - Draw a fraction model on the board, such as a rectangle divided into 3 parts. Shade 1 part and write $\frac{1}{3}$ next to the model. Explain that the fraction shows 1 shaded part out of 3 total parts.
 - Beneath the rectangle, draw another rectangle with the same size but this time divide it into 6 parts. Shade 2 parts in such a way that the shaded part aligns with the shaded part of the rectangle above it. Invite a volunteer to write a fraction to describe this model. Lead the student to write $\frac{2}{6}$.



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Part 1

Student Lesson

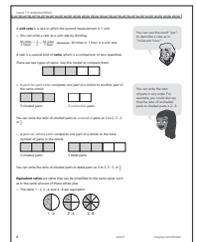
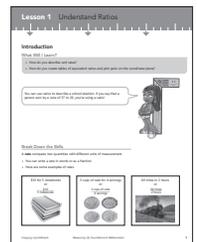
Lesson At-a-Glance

Chapter 1 • Ratios and Rates

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Read the information about **rates** together. Explain that a rate compares two quantities with different measurement units.
 - Point out that a rate can be written using words or as a fraction.
 - Discuss that measurement units in rates can be units of measure, such as feet or hours, or they can also be a number of items, such as 5 lemons.
 - Invite volunteers to read aloud each of the examples shown.
- Together, read the definition of **unit rate**. Ensure students understand that in a unit rate, the second measurement is 1 unit.
 - Explain that a rate can be written as a unit rate by using division or multiplication. Walk through the example provided by explaining that dividing each measurement by 2 results in a unit rate. Mention that the numeral 1 does not have to be written before the unit of measurement, but it is shown here for clarity.
 - Work with students to determine the unit rate for each of the rates presented above. [\$2 per notebook, 0.75 cup of oats per serving, 30 miles per hour]
- Together, read the definition of **ratio**. Note that *ratio* is a more general term than *rate*. Explain that there are two types of ratios.
 - As a group, read through the description of part-to-part ratios. Use the model to show that one ratio describes the 3 shaded parts to the 2 unshaded parts.
 - Have students highlight the three ways to write this ratio.
 - Direct students to read the hint, and then challenge them to write the ratio of unshaded parts to shaded parts in three different ways.
 - Point out that corresponding part-to-part ratios are reciprocals of each other. Tell students that you can find a reciprocal by "flipping" the order of the values in a ratio.
 - Now read through the description of part-to-whole ratios together. Make sure students recognize that, in this situation, the difference between the part-to-part and part-to-whole ratios is the second quantity.
 - Again use the model to show that one ratio describes 3 shaded parts to the whole, which is 5 total parts.
 - Challenge students to describe the model using a different part-to-whole ratio. Lead them to recognize that they can write 2 unshaded parts to 5 total parts, which is 2 to 5, 2 : 5, or $\frac{2}{5}$.
 - Discuss that while a ratio can be written using a separating bar, it is only a true fraction if it names a part to a whole.



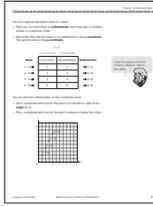
Explicit instruction

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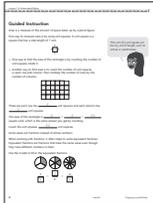
- Read aloud the definition of **equivalent ratios** and then invite volunteers to describe them in their own words.
- Point out that the model shows the same ratio of uneaten pie to the total pie in all three images. Explain that the difference is the number of parts in each image. Show students that the three ratios, therefore, have the same value.
- Read aloud the information about **ordered pairs**.
 - Remind students that they have learned about ordered pairs before when plotting points. Review that the first value is the **x-coordinate** and the second value is the **y-coordinate**.
 - Work together to follow the process for writing the ratios as ordered pairs.
- Ask students to each put a finger on the **origin** on the coordinate plane.
 - Discuss how the **x-coordinate** indicates the distance from the origin along the **x-axis** and the **y-coordinate** indicates the distance from the origin along the **y-axis**.
 - Guide students to plot the ordered pair (1, 2) by moving 1 unit to the right of the origin and then 2 units above that point. Then repeat for the other ordered pairs.



GUIDED INSTRUCTION

Guide students through each activity. Read and discuss all the tips in conjunction with the related activities.

- Open the discussion with a review of area.
 - Confirm that students understand that area is the measure of the inside region of a plane figure and that area is measured in square units.
 - Clarify with students that area can be measured by using congruent unit squares. Explain that the units can be any unit of length, but they must all be the same.
 - Together, work through the steps for finding the area using a rectangular grid made of unit squares.
 - Discuss that area can be found by counting the unit squares or by multiplying the number of rows by the number of columns.
 - Remind students that a row goes across horizontally. Tell students to count the number of unit squares in each row and enter it in the blank. Then have them repeat for each column, making sure they understand that columns go up and down vertically.
 - Have students complete the equation that is used to find the area of the rectangle.
 - Ask students to count the number of unit squares to confirm the area they found using multiplication.
- Point out that when finding the area of rectangles, it is possible for the lengths and widths to be fractional values. Explain that for this reason, it is important to review what students know about fractions.



4

Level F

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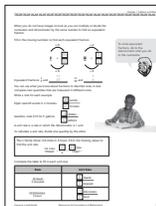
Common error analysis

- Remind students that a fraction compares a number of parts to the total number of parts in the same whole.
- Review that the top, or numerator, of a fraction shows the number of parts and the bottom, or denominator, shows the total number of parts in the whole.
- Say aloud the word *equivalent* and explain that it means "the same." Point out that equivalent fractions have the same value.
- Direct students to the model that shows equivalent fractions. Make sure they realize that the numerator in each fraction describes the number of shaded parts, and the denominator describes the total number of parts for each fraction circle.
- Ask students to fill in the missing values to show the equivalent fractions. Review their answers as a group.

Common Errors

Some students may find the model of equivalent fractions confusing or think that it shows different amounts because each circle is divided into a different number of parts. To help alleviate this confusion, draw a circle where all students can see. Divide the circle into fourths, shade $\frac{1}{4}$, and discuss. Then draw additional lines to divide the same circle into eighths. Discuss that $\frac{2}{8}$ are now shaded, but that the size of the shaded portion has not changed.

- Explain that you can find an equivalent fraction by multiplying the numerator and denominator by the same number.
 - Begin by directing students to look at the example on the left. Tell students to multiply the numerator, 3, by 5, and fill in the product they find as the numerator of the equivalent fraction.
 - Then tell them to multiply the denominator, 5, by 5, and fill in the product they find as the denominator of the equivalent fraction.
 - Tell students that three-fifths is equivalent to fifteen twenty-fifths and have students fill in the value in the sentence below the problem.
 - Then tell students that they can also find equivalent fractions by dividing. Ask them to divide 12 and 16 by 4 to find an equivalent fraction. Have them fill in the missing values.
- Discuss how students can use what they know about fractions to learn about rates. As a group, read the definition of rate.
 - Invite a volunteer to read aloud the description of Elijah's reading rate and have students fill in the numbers.
 - Then have students fill in the rate for the cost of gasoline. Confirm their responses.
- Point out that a unit rate is a special kind of rate in which a measurement is compared to a measurement of 1 unit.
 - As needed, clarify what this means with examples such as 1 mile, 1 hour, or 1 gallon.
 - Discuss how the steps used to determine a unit rate are the same as for determining an equivalent fraction.



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5

Part 2

Guided Instruction

- Read aloud the unit rate problem about the Li family.
- Have students fill in the missing values. If students struggle, remind them that they must divide the numerator and denominator by the same number.
- Mention that the answer would still be correct without writing the 1. Remind students that if they see a unit of measure without a number, they know that the number is 1.
- Have students complete the table to write unit rates from the given rates. Review as a group.

Common Errors

Some students may be confused by how unit rates differ from rates in general. Work with them to brainstorm unit rates they might encounter in their daily lives, such as prices at the store or speed limit signs on the road. Challenge them to find examples then have students describe examples of unit rates in their own words.

- Discuss with students the difference between a rate and a ratio.
 - Have students give examples of rates and then ratios.
 - Explain that a ratio can be written in the forms: a to b , $a : b$, and $\frac{a}{b}$.
- Explain that some ratios, known as part-to-part ratios, compare one part of a whole to another.
 - Direct students to look at the model of the diamond shapes. As a group, determine that there are 4 shaded parts, 2 unshaded parts, and 6 total parts.
 - Ask students to fill in the ratios and then say them aloud.
- Explain that other ratios compare parts to the whole or the whole to parts.
 - Ask students to fill in the ratios and then say them aloud.
- Discuss that writing equivalent ratios is the same as writing equivalent fractions.
 - As a group, work through the examples of apples and oranges. Have students fill in the values. When finished, explain that the models show equivalent ratios. Explain that the first model shows 2 apples for 3 oranges, which is a ratio of 2 to 3. Then explain that the second ratio shows twice as many apples and oranges, which is a ratio of 4 to 6.
 - Point out that you can find equivalent ratios using multiplication and division. Remind students that they must multiply or divide both numbers in a ratio by the same amount. Direct them to fill in the missing values to complete the equivalent ratio statements.

Common Errors

When students see a ratio such as 2 : 3, some of them may attempt to find an equivalent ratio by adding the same number to the numerator and denominator. For example, they may think 2 : 3 is equivalent to 4 : 5 because they added 2 to both the numerator and denominator. Remind students that the Identity Property of Multiplication states that the product of a factor multiplied by 1 is equivalent to the factor. Write a ratio on the board where all students can see, such as $\frac{2}{3}$. Draw arrows from the numerator and denominator of the ratio with a multiplication sign near the arrows. Have a volunteer write the same number next to each multiplication sign and then write the equivalent ratio. Repeat with more ratios until students feel comfortable with this concept.

Level F

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Part 3

Student Practice

INDEPENDENT PRACTICE

Practice 1 Questions

- Read the questions aloud and have students select or provide the answers independently. Review the answers.

Guidance included for each activity

Guided Instruction
Independent Practice—Two Levels
Exit Ticket

Independent Practice
Answer the questions that follow.

Practice 1

1. What is the ratio of shaded parts to unshaded parts?


 A. $3:10$
 B. $10:3$
 C. $3:7$
 D. $7:3$

2. Each pizza weighs 200 grams and is sliced into 8 slices. Circle the ratios that are equivalent to the ratio of slices to grams. Select the three correct answers.


3. Complete the table to show ratios that are equivalent to $\frac{1}{2}$.

First Value	Second Value
2	4
3	6
4	8
5	10
6	12
7	14
8	16

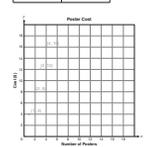
Practice 1

1. Each basket costs \$15 for holding 3 baskets. What is the unit rate for the price that costs money? _____

2. Use the table to create ordered pairs and plot them on the coordinate plane.

Number of Pizzas	Cost (\$)
1	48
2	96
3	144
4	192

3. Plot the ordered pairs that represent a ratio of $\frac{1}{2}$ on the coordinate plane.



Practice 2 Questions

- Ask students to read the questions to themselves and select or provide the answers independently. Review the answers.

Practice 2

1. What is the ratio of shaded parts to unshaded parts? Express your answer as a simplified ratio.


2. Complete the table to find equivalent ratios for the ratio $\frac{1}{2}$.

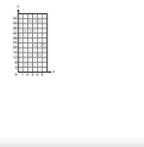

First Value	Second Value
2	4
3	6
4	8
5	10
6	12
7	14
8	16

3. Approximate each point (80) times in 4 seconds. Record the data every 10 seconds in a table. What unit rate describes each student's progress?

Practice 2

1. Which ratios are equivalent to $\frac{1}{2}$? Select the three correct answers.
 $\frac{1}{2}$
 $\frac{2}{4}$
 $\frac{3}{6}$
 $\frac{4}{8}$
 $\frac{5}{10}$

2. Plot the ordered pairs that represent a ratio of $\frac{1}{2}$ on the coordinate plane.
 Plot $(1, 2)$.



Lesson 1 Copy Master 1

Name _____ Date _____

Find equivalent ratios.

Ratio: _____

First Value	Second Value

Ratio: _____

First Value	Second Value

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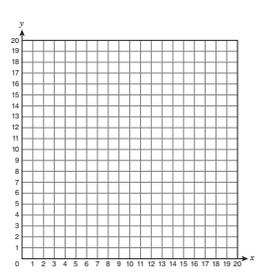
Lesson 1 Copy Master 2

Name _____ Date _____

Plot equivalent ratios on the coordinate plane.

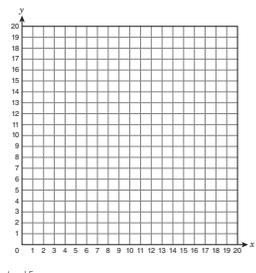
Ratio: _____

First Value	Second Value



Ratio: _____

First Value	Second Value



Level F

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Part 4

Exit Ticket

End of Lesson—Additional Support

Struggling Learners English Language Learners

EXIT TICKET

- Have students fill in the Exit Ticket. Read through the word problem together. Make sure students understand that they have been provided a rate that can be used to write equivalent ratios. Clarify that the equivalent ratios can then be translated into ordered pairs that they are to plot on the coordinate plane.

Exit Ticket

On a road trip, a car travels 150 miles in 3 hours. Write the unit rate. Write a ratio that is equivalent to the unit rate. Write a ratio that is equivalent to the unit rate. Write a ratio that is equivalent to the unit rate.

Equivalent Ratio	Equivalent Ratio
1	1
2	2
3	3
4	4
5	5

Write ordered pairs from the equivalent ratios and plot them on the coordinate plane.

ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- For students who struggle with accurate multiplication or accurate division, provide a multiplication table to check their work when finding equivalent ratios or unit rates.
- Give students counters or tiles to practice writing ratios. Have students draw the counters or tiles, and then write part-to-part, part-to-whole, and whole-to-part ratios. Students can then share their drawings with a partner and challenge the partner to write the ratios. The students can then compare their answers and correct any differences.
- Some students are likely to struggle with making and organizing sets of equivalent ratios. Give such students extra practice writing equivalent ratios by completing Copy Master 1 at the end of these teacher notes. Make a copy of the master, insert a ratio at the top of each of the two tables, and make your student copies. By providing different starting ratios, the activity can be completed over and over and be a different activity each time.

SUPPORT FOR ENGLISH LEARNERS

- English learners might be confused about the difference between *unit squares* and *square units*. Point out that while the names are similar, they are not the same. Explain that unit squares are used to tile a rectangle and identify the area and square units are the units of measurement for area. Have students draw a diagram and label the area in square units and shade a unit square.
- English learners may struggle with the vocabulary for plotting points in a coordinate system. Have students create flashcards for the terms *coordinate plane*, *origin*, *ordered pair*, *x-axis*, *y-axis*, *x-coordinate*, and *y-coordinate*.
- Spanish cognates: equivalent/equivalente, fraction/fracción, area/área, coordinate/coordinar, unit/unidad

EXTENSION ACTIVITIES

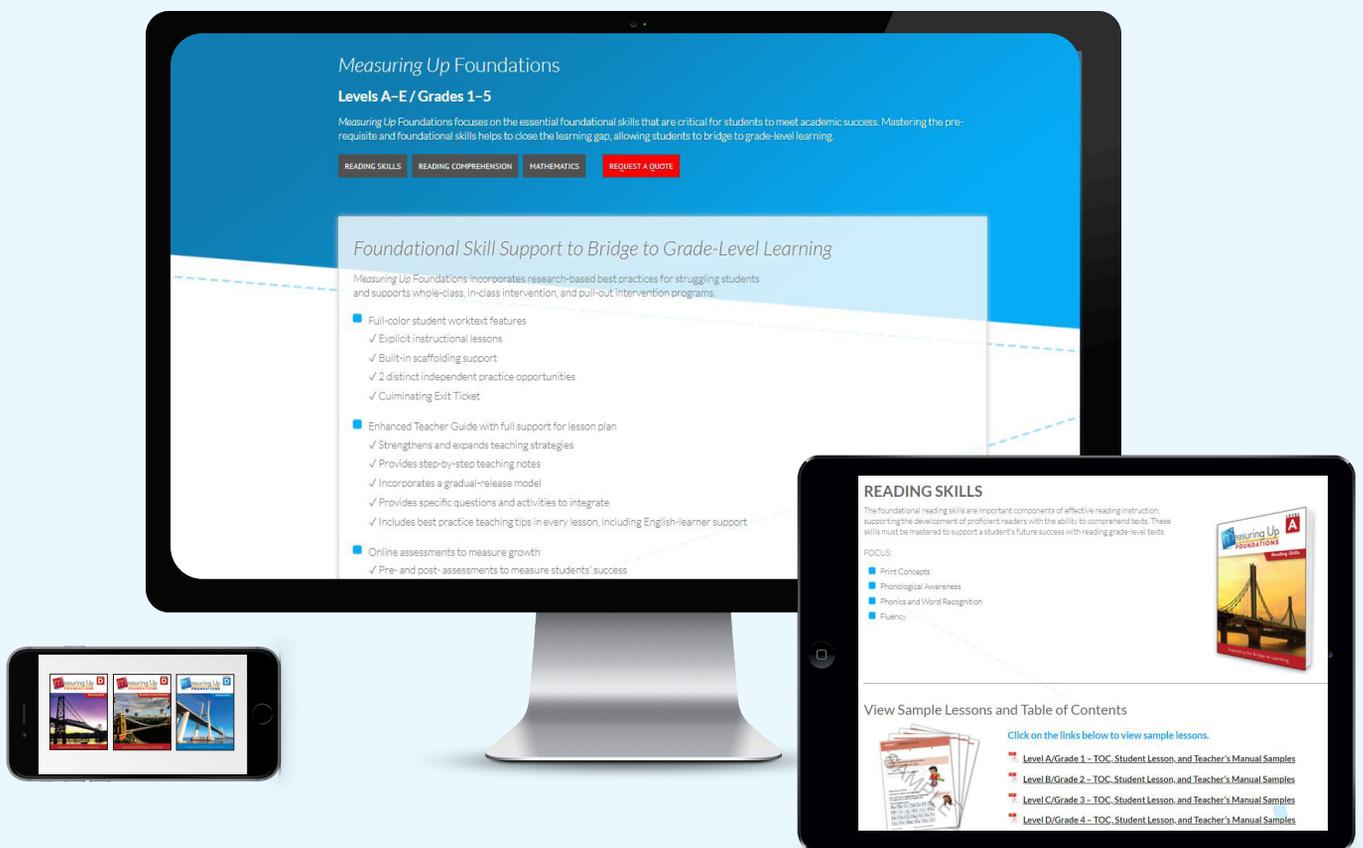
- Challenge students to write part-to-part and part-to-whole ratios using different sets, such as consonants and vowels, or classroom objects, such as books.
- Have partners generate their own word problems that include unit rates. Suggest that they write problems about buying clothes, saving money, hiking, or other situations that form rates. Point out that they could also increase the number of servings in a recipe. Encourage pairs to exchange their problems with another pair and solve.
- Invite students to discuss why equivalent fractions cannot be formed by adding or subtracting the same number to the numerator and denominator.

EXTENSION ACTIVITIES for every lesson

For students who need more, teachers can choose the extra activities specific to lesson skills. Copymasters included.



Learn more! Download sample lessons to evaluate the quality, rigor, and ease with which **Measuring Up** can be integrated into your instructional program.



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