

Expanding the Bridge to Learning

GRADES 1-5 LEVELS A-E

Reading Skills
Reading Comprehension
Mathematics

Reinforce Accelerated Learning with Unparalleled Teacher Support

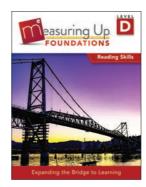


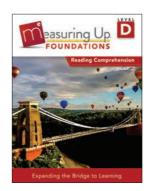


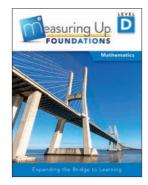


Focus on essential skills in reading and mathematics for students who need to master critical foundational skills to become successful with on-grade-level standards. Close learning gaps, to help students bridge to grade-level learning.

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GRADES 1-5 LEVELS A-E

Reading Skills
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Mathematics

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

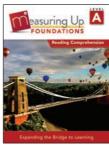
Lesson features:

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

STUDENT EDITION

Measuring Up Foundations Student Edition

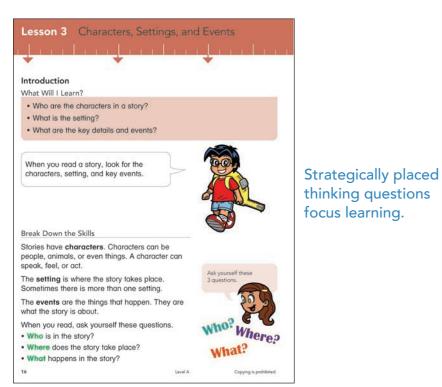
The 4-part lesson plans encompass the research-based components required for intense instruction.



Reading Comprehension Level A, Lesson 3

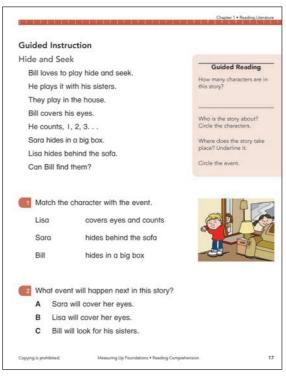
Accelerate achievement with:

- 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



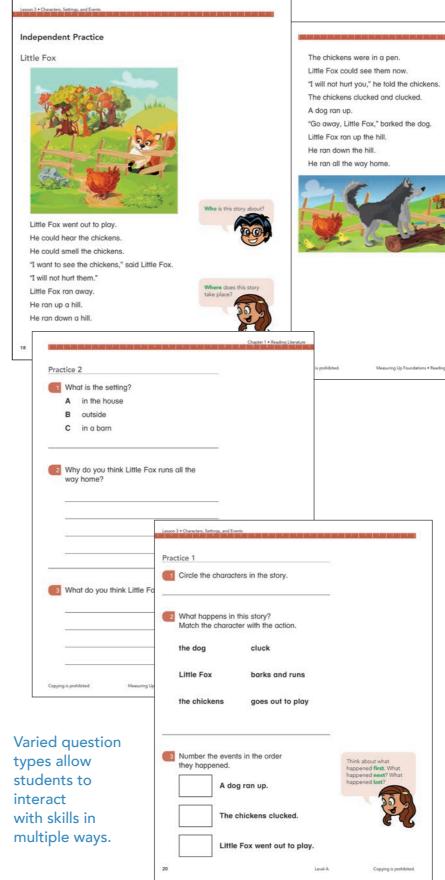
Examples and illustrations support and clarify meaning.

Clean page layout eliminates distractions.



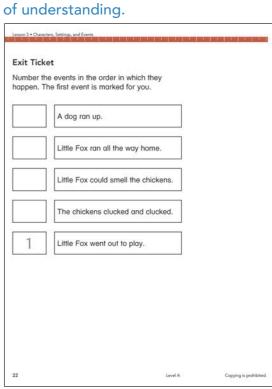
Set clear learning goals and activate background knowledge.

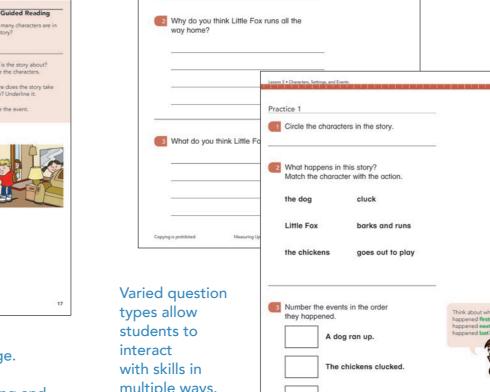
Provide context for new learning and academic vocabulary.



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

Exit ticket offers a quick check





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UNPARALLELED **TEACHER SUPPORT**

TEACHER GUIDE Lesson 3 Characters, Settings, and Events

identify characters in a story.

WHAT WILL I LEARN?

EXPLICIT INSTRUCTION

What are the main events

English learners.

Who are the characters in a story? What is the story's setting?

ACTIVATING PRIOR KNOWLEDGE

Identify the setting(s).

Why Students May Struggle

Students may struggle with sequencing events in the story as they occur.

Hide and Seek Reading Level: 10–200L Word Count: 44

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.



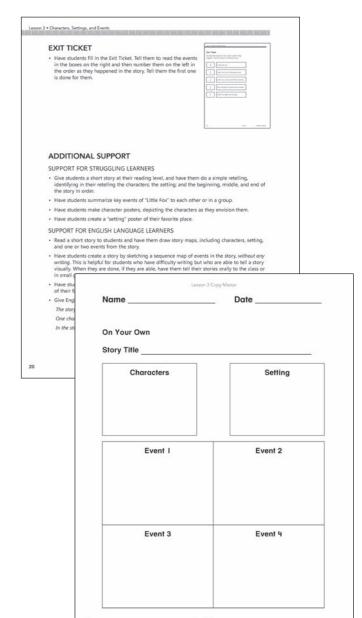
Reading Comprehension Level A, Lesson 3

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.

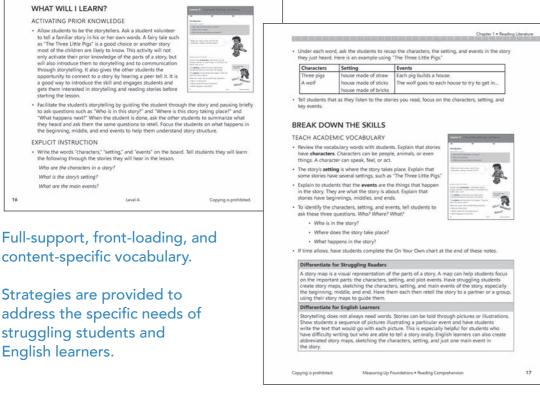
Help English learners with language frames and strategies to develop oral language proficiency.

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



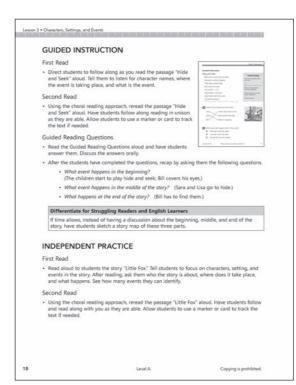
Quick view of lesson makes planning easy.

Set learning goals and foster meaningful connections to new learning.



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

Suggestions are provided for students who exhibit common errors.



Fully developed instructions support master teachers and novices alike.

Comprehensive directions for assigning and supporting practice.

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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:

- 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.

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 current instructional program, provide a focused review, and to remediate as necessary.

• 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.

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Measuring Up Foundations

SCOPE OF SKILLS



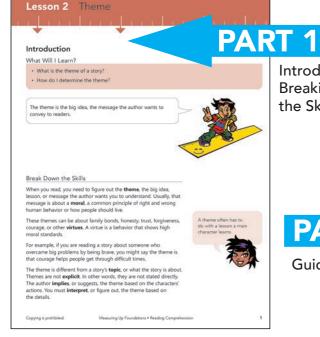
Focused Areas	Level A Grade 1	Level B Grade 2
Reading Literature	Key Details Central Message Characters / Settings / Events Rhyme & Rhythm	Key DetailsCentral MessageStory CharactersMeaning of Rhythm
Literary Analysis and Response	Literary / Informational TextsPoint of ViewIllustrationsCharacters & Their Actions	Story Structure Point of View Characters / Setting / Plot Different Versions of Stories
Reading Informational Text	 Informational Texts Main Topic & Key Details Connections in Texts Meaning of Words / Phrases 	Informational Texts Main Topic Text Connections Context
Analyzing Informational Text	 Text Features Author's Purpose Images & Key Ideas Author's Main Ideas Similarities & Differences in Texts 	Text Features Author's Purpose Images Reactions & Evidence Two Texts / Same Topic

Level C Grade 3	Level D Grade 4	Level E Grade 5
Ask Questions	• Inference	• Quotes & Inference
Central MessageCharacter Description	Theme Characters / Settings / Events	Characters & Theme Characters / Settings / Events
Word Meanings	• Mythology	• Figurative Language
Story Structure Deint of View	Differences in Genre Deinte of View	Text Structure Deinte of View
Point of View Illustrations & Text	Points of View Different Presentations	Points of View Multimedia Events
Stories by the Same Author	Similar Themes and Topics	Stories in Same Genres
 Questions to Build Understanding Main Idea & Key Details Relationships: Events / Ideas Academic / Domain-spec Words 	Explicit & Implicit Text Main Idea & Key Details Historical / Scientific / Tech Texts Academic / Domain-specific Words	Explicit & Implicit Language Main Idea / Supporting Details People / Events / Ideas Academic / Domain-Specific Words
 Text Features / Search Tools Different Points of View Images & Text Connect: Sentences and Paragraphs Different Texts / Same Topic 	Structure of Texts Different Writers / Same Topic Visual & Oral Presentations Reason & Evidence Information from 2+ Texts	Structure of Multiple Texts Points of View Print & Digital Source Reasons & Evidence Texts on Same Topic

READING COMPREHENSION STUDENT SAMPLE



Reading Comprehension Level D, Lesson 2



Introduction and **Breaking Down** the Skill



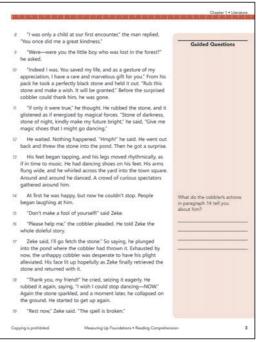
Guided Instruction

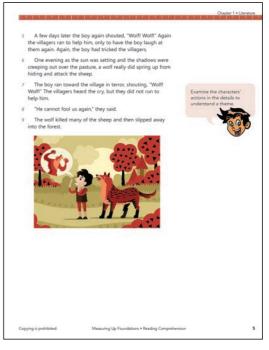
These tips can help you identify and understand the theme of a work. Identify the main character and the problem he or she faces. The character's actions in the key details will give you hints of · What does the character learn . Connect the problem or situation to your own life. **Guided Instruction** Read the passage below and answer the questions. The Dancing Cobbler Guided Questions 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. 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 "Bah!" Zeke cried. "Dancing is foolishness. Stick to busines and don't waste your day in idle dreaming!" One day a gentlemanly stranger appeared on the cob "Greetings, my friend," he said.

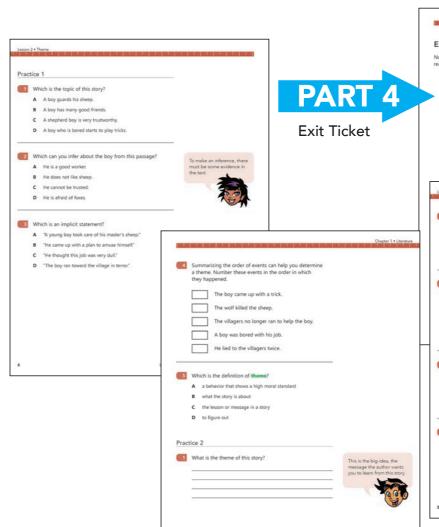
took the stone to the well. He threw it down the dark shaft gone forever. And from that time on, he never wished to go What do you think is the theme of this story? Underline the character's action that led you to that theme Independent Practice Read the selection. Then, answer the questions that follow. The Shepherd Boy and the Wolf A 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 One day as he sat watching the sheep in the guiet forest, he thought about what he would do if he saw a wolf. He came up with a plan to amuse himself. 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!" 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.

PART 3

Independent Practice— 2 Levels



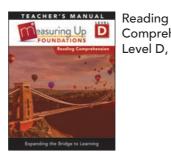




Exit Ticket Now that you understand the difference between topic and theme read this passage. Then underline the topic. Circle the theme. One day a lion walked proudly through the forest. The animals gave him respect and made way for him to pass. But a donkey made a nasty comment as the lion passed. 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 Do not pay attention to the remarks of a fool, lonore them. 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. 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. Which is the definition of a story's topic? A a behavior that shows a high moral standar B what the story is about C the big idea or lesson in a story D the number of characters How did the boy's actions help you determine the them

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READING COMPREHENSION TEACHER SUPPORT SAMPLE



Comprehension Level D. Lesson 2

Lesson At-A-Glance Review

- Learning objectives
- Academic vocabulary
- Why students may struggle

PART 1 Introduction **Breaking Down the Skill**

Activating prior knowledge specific to skill

Explicit instruction pre-lesson

TEACHER GUIDE

Lesson 2 Theme

			At-a-0	Glance	
Learning	Objectives			Why Students May Strug	gle
• Identify t	nd theme. he theme of a difference be	a story. etween theme	and topic.	Students struggle with idea of a story and often confus topic. It is difficult for them a theme is a universal truth	se it with the story's n to understand that
Academic	Vocabulary			Passage Information	
theme explicit	moral imply	virtue interpret	topic	The Dancing Cobbler Reading Level: 610–800L The Shepherd Boy and the	Word Count: 510
				Reading Level: 610–800L Exit Ticket Passage Reading Level: 410–600L	Word Count: 264 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



· 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.

Level D Copying is prohibited. Chapter 1 • Literature

- · 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 to 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
- · 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.

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 conceptspecific vocabulary

Explicit instruction — during

lesson

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- · 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
- · 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.

Struggling student and English learner support embedded within lesson

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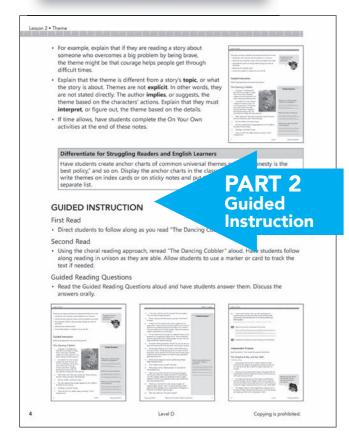
READING COMPREHENSION TEACHER SUPPORT SAMPLE



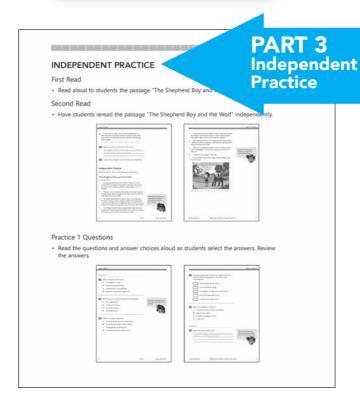
Reading Comprehension Level D, Lesson 2

Guidance included for each activity—

Guided Instruction Independent Practice — 2 Levels Exit Ticket



Struggling student and English Learner support — embedded within lesson



Practice 2 Questions Ask students to read the questions and select the answers independently. Review the answer PART 4 EXIT TICKET **Exit** · Have students fill in the Exit **Ticket** read a short passage and identif 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 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 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. Level D Copying is prohibited

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. Chapter 1 • Literature

- 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.

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SCOPE OF SKILLS

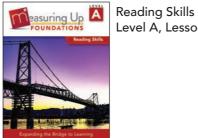


Focused Areas	Level A Grade 1	Level B Grade 2
Phonological Awareness	 Alphabet Sounds Sounds into Words Vowels Rhyme with Word Families Blended Sounds Word Parts Separate Syllables 	Words & Sounds Vowel Sounds Blended Sounds Word Parts Break Down Words
Phonics and Word Recognition	 Digraphs Regularly Spelled Words Long Vowel Sounds Syllables Open & Closed Syllables Two-Syllable Words Base Words with Added Endings High Frequency & Irregularly Spelled Words Alphabetizing 	 Phonics Long & Short Vowels Common Vowel Teams Two-Syllable Words Common Spelling Sounds Prefixes & Suffixes Irregularly Spelled Words
Fluency	 Parts of a Book Sentences Reading Purpose Accuracy, Fluency, & Expression Context Clues 	Book & Sentence Features Accurate & Fluent Reading Purpose for Reading Accuracy & Expression Context

Level C Grade 3	Level D Grade 4	Level E Grade 5
Words and SoundsLong & Short VowelsSingle-Syllable WordsWord Parts	PhonemesLong & Short VowelsSound BlendsWord Parts	 Words & Sounds Long & Short Vowels Blending Sounds Phonemes
- Phonics	Words into Sounds Dhonics	Segment Sounds Profixes, Suffixes, 8
 Phonics Prefixes and Suffixes Latin Suffixes Multi-Syllable Words Irregularly Spelled Words 	Phonics Prefixes & Suffixes	Prefixes, Suffixes, & High Frequency Words
Print FeaturesSentence FeaturesAccurate & Fluent ReadingPurposeful ReadingPoetry with Expression	Book Features Sentence Features Accurate & Fluent Reading Purposeful Reading Poetry with Expression	 Print Features Accuracy & Fluency Purpose for Reading Poetry & Prose with Expression Context Clues

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READING SKILLS STUDENT SAMPLE

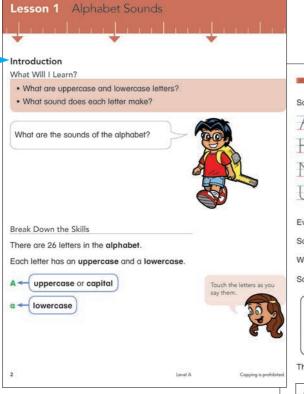


Level A, Lesson 1



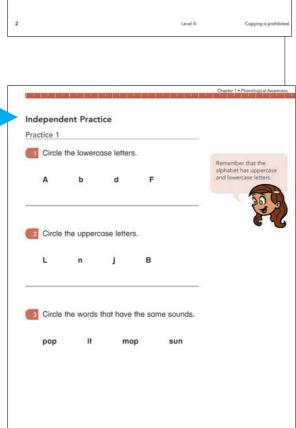


Introduction and Breaking Down the Skill



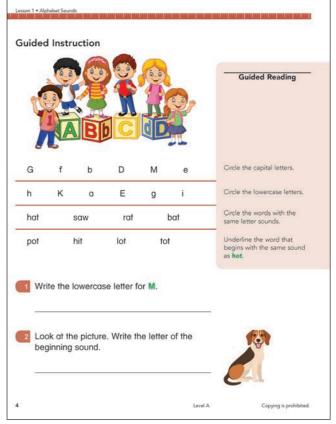
PART 3

Independent Practice — 2 Levels

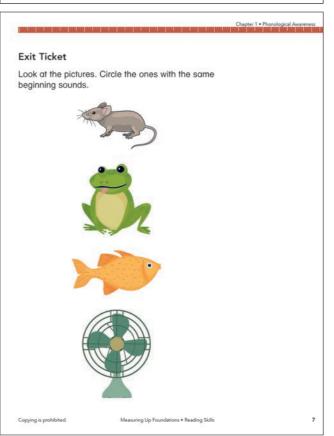




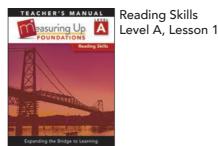








READING SKILLS TEACHER SUPPORT SAMPLE



Reading Skills

TEACHER GUIDE

Lesson 1 Alphabet Sounds

At-	a-Glance	
Learning Objectives	Why Students May Struggle	
• 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

Explicit Instruction

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 the

A-B-C-D-E-F-G H-I-I-K I-M-N-O-F 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.

- · Put the alphabet up on the board or follow a chart you may alre-Show students that the alphabet has uppercase and lowercase let first page of the lesson for students to follow along. Having a visual have all students paying attention to you is preferred, however
- · Ask students if they know that each letter makes a specific sound a random letter sound. Say each of the letter sounds one by one a 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.



- Tell students each letter has its own sound. Go over each sound
- **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 note

Differentiate for Struggling Readers and English Learners

Students who have difficulty forming letters can use an alphabet chart with directional arrow 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

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

· 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.

· 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.



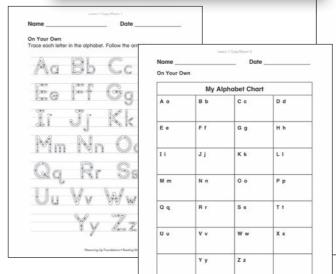
PART 2 **Student** Lesson

PART 3 Student Lesson

PART 4 Student Lesson

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



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.

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SCOPE OF SKILLS

Focused Areas	Level A Grade 1	Level B Grade 2
Numbers, Operations & Algebraic Thinking— Base Ten	 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 	 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		
Measurement, Data, & Geometry	 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 	 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

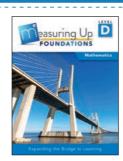


Mathematics

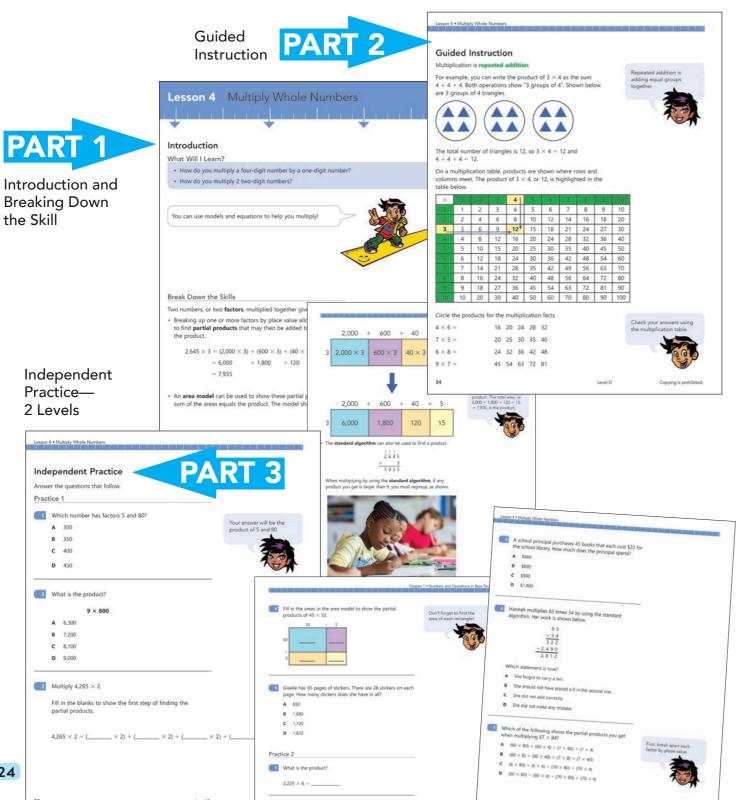
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 Round and Estimate Numbers Add and Subtract within 1000 Know Multiplication Facts Relate Multiplication and Division Facts Know Division Facts Find Unknown Factors Use Multiplication and Division Strategies Multiply 1-Digit Whole Numbers by Multiples of 10 Solve One- and Two-Step Word Problems with 4 Operations 	 Read, Write, and Compare Numbers Round Numbers Add and Subtract Multi-Digit Whole Numbers Multiply Whole Numbers Divide Whole Numbers Solve Word Problems Involving the 4 Operations Find Factors and Multiples Make and Use Patterns 	Level E Grade 5 • Understand Place Value Patterns • Multiply Whole Numbers • Divide Whole Numbers • Write & Interpret Numerical Expressions
Understand & Compare Fractions Understand Equivalent Fractions Tell & Write Time to the Nearest Minute Solve Word Problems Using Time Intervals	Compare Fractions Add / Subtract Simple Fractions with Like Denominators Add & Subtract Mixed Numbers Multiply Fractions by Whole Numbers Understand Fractions & Decimal Numbers Compare Decimals	 Read, Write, & Compare Decimals Round Decimals Add & Subtract Decimals Multiply Decimals Divide Decimals Add / Sub Fractions w/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
 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 	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	Make & Use Line Plots Convert Measurement Units in Problems Find Volume & Rectangular Prisms Understand Coordinate Plane & Ordered Pairs Use Pattern Rules

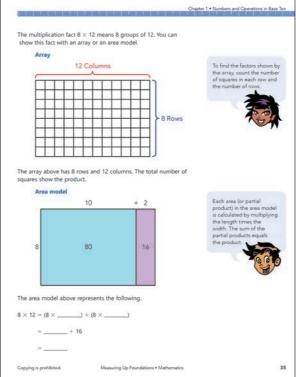
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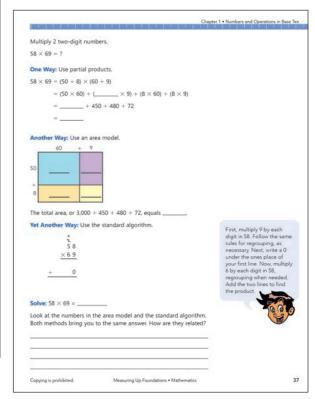
MATHEMATICS STUDENT SAMPLE



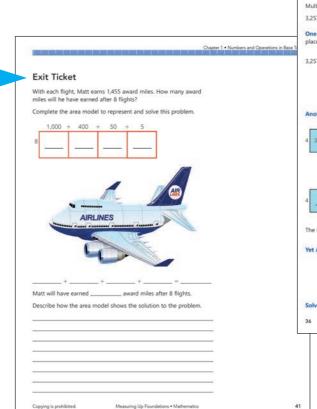
Mathematics Level D, Lesson 4

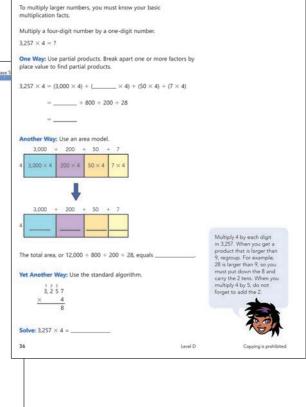




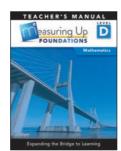








MATHEMATICS TEACHER SUPPORT SAMPLE



Mathematics Level D, Lesson 4

TEACHER GUIDE

Lesson 4 Multiply Whole Numbers

At-a	Glance
Learning Objectives	Review Skills
 Multiply a four-digit number by a one-digit number. 	Know multiplication facts.
Multiply 2 two-digit numbers.	
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 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.
- ${f \cdot}$ On the board, write the problem 1,234 ${f imes}$ 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

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Explicit Instruction

PART 1 Student Lesson

Lesson At-A-Glance Review

- 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
 Point to the multiplication problem again. Then, write 1,234 × 5 = (1,000 × 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 imes 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.
- ${f \cdot}$ Repeat the process using the problem 36 ${f \times}$ 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

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 +



- · Explain that partial products are simply parts of the total product. Tell students that when preaking 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 imes 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
- 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

** **

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 imes 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

them use the multiplication table to check their answers

· 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

Some students may use the wrong row and/or column when finding a product by using the multiplication table. Suggest that students use a paper edges or rulers to stay on the correct

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Common Error Analysis

Chapter 1 • Numbers and Operations in Base Ten

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

- · 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

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

PART 2 Student Lesson

- 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.

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
- · Have students fill in the blanks to complete the equation that shows the process for multiplying using partial products. Remind them that the factor 3,527 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 3.000×4 .



- · 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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MATHEMATICS TEACHER SUPPORT SAMPLE

Lesson 4 • Multiply Whole Numbers

Guidance included for each activity:

Independent Practice — 2 Levels

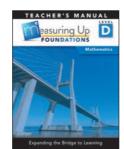
Guided Instruction

Exit Ticket

Practice 1 Questions

Review the answers.

INDEPENDENT PRACTICE



Mathematics Level D, Lesson 4

PART 3

Student

Lesson

PART 4 Student Lesson

Chapter 1 • Numbers and Operations in Base Ten

· Have students fill in the Exit Ticket. Make sure that students understand that they are supposed to fill in each smaller area on the area model as well as the blanks that follow the model.



ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- · For students who are struggling to understand how to break apart factors by place value to obtain partial products, have them first show the factor(s) as the sum of the values of its digits before completing an equation to show the partial products and total product. Use Copy Master 1 and Copy Master 2 at the end of these teacher notes. For each copy master, make a copy of the master and insert starting problems for each outline. By providing different starting problems, the activities can be completed over and over and be different activities each time.
- · Have struggling students practice multiplying whole numbers by using the lattice method.

SUPPORT FOR ENGLISH LANGUAGE LEARNERS

- Some English learners may struggle to understand the meaning of the word factor. Ask students to describe the meaning, using their own words. Students may tell you that a factor is something that matters or that it has a role in determining something. As you go through each multiplication problem, point to each number in the problem and tell students that the number is called a factor because it has a role in determining the answer.
- Some English learners may struggle to understand the meaning of the word product. Ask students to describe the meaning in their own words. Students may say that a product is the outcome or that it is the result of something. As you go through each multiplication problem, point to each answer and tell students that the number is called the product because it is the result of multiplying some numbers.

EXTENSION ACTIVITIES

 Have students work in groups of three. Have the whole group work together to create a worksheet that has four multiplication problems—2 four-digit by one-digit problems and 2 two-digit by two-digit problems. Have each group member take on a strategy for solving (using an equation and partial products, using an area model, or using the standard algorithm for multiplication). When all students have found the answers, have students compare answers and discuss what they learned.

Lesson 4 • Multiply Whole Numbers

- · Have students work with a partner to create four multiplication word problems. Have students solve each problem by using each approach.
- · Have students work in groups to create a presentation on what they learned about multiplying four-digit by one-digit numbers and multiplying 2 two-digit numbers. The presentation should include one sample problem for each and clearly illustrate an understanding of using multiple approaches for representing and solving the problems.

End of Lesson — Additional Support

Struggling Learners **English Language Learners**

Practice 2 Questions

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

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





Multiply a Two-Digit Number by a Two-Digit Number Break Apart Both Factors by Place Value: Break Apart Both Factors by Place Value: Find Partial Products:

Name		Date	
Multiply a Four-Di	igit Number by a One-	Digit Number	
Multiplication Prob	lem: ×	-	
Break Apart Larger	Factor by Place Value:		
	++	+	
Find Partial Product	ts:		
×	= (×) + (×) +	
) + (×)	
	+	++	
Multiplication Prob	lem: ×	e.	
Break Apart Larger	Factor by Place Value:		
	++	+	
Find Partial Product	ts:		
×	(×) + (×) +	
	(×) + (×)	
	- +	+ +	

EXTENSION ACTIVITIES for every lesson

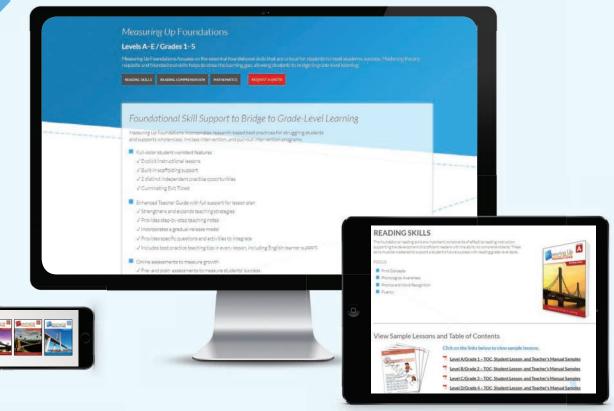
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