Grades K–5

See 6–A1 Version

Developing Vocabulary and Supporting English Learners

i-Ready Classroom Mathematics provides a variety of supports to help all students develop their ability to understand and use the academic language of mathematics. While many of the language supports listed are intended for all learners, the program also includes specific supports that address the strengths and needs of students learning English. Learn more about the supports available below.

Engaging All Students and Families

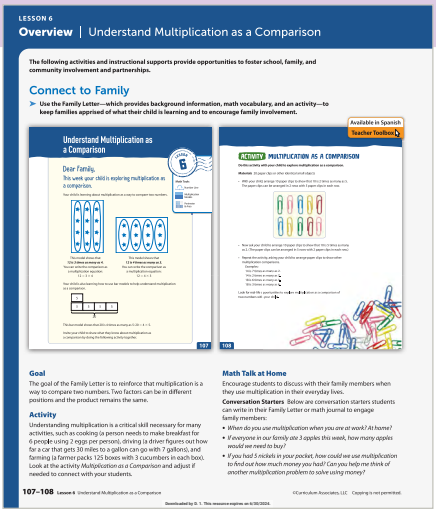
Family Letter (Available in 11 Languages)

PURPOSE:
Keep families informed and encourage math talk at home using a suggested activity and conversation starters

WHEN:
When starting a new lesson

WHERE:
Beginning of Lesson:

- Teacher Toolbox: Instruction & Practice tab (English and 10 additional languages)
- Teacher's Guide—English
- Student Worktext—English

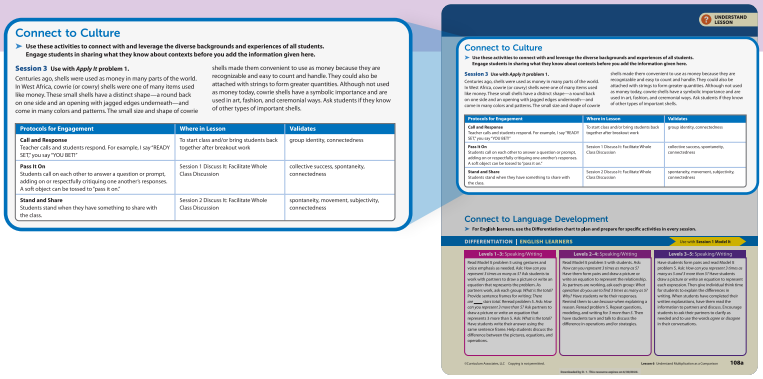

LESSON 6
Overview | Understand Multiplication as a Comparison
The following activities and instructional supports provide opportunities to foster school, family, and community involvement and partnerships.
Connect to Family
Use the Family Letter—which provides background information, math vocabulary, and an activity—to keep families apprised of what their child is learning and to encourage family involvement.
Available in Spanish
Teacher Toolbox
Understand Multiplication as a Comparison
Dear Family,
ACTIVITY MULTIPLICATION AS A COMPARISON
Goal
Activity
Math Talk at Home
Conversation Starters

Connect to Culture

PURPOSE:
Integrate cultural information and leverage the diverse backgrounds and experiences of students through brief activities

WHEN:
During the sessions listed

WHERE:
- Beginning of Lesson: Teacher's Guide
- Teacher Toolbox: Each lesson on the presentation slides (K–1)

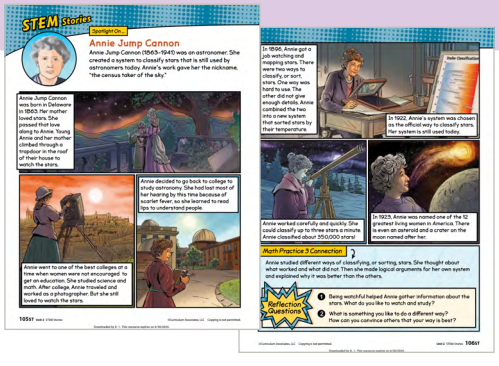

Connect to Culture
Use these activities to connect with and leverage the diverse backgrounds and experiences of all students.
Engage students in sharing what they know about contexts before you add the information given here.
Session 3 Use with Apply It problem 1.
Protocols for Engagement | Where in Lesson | Validates
Connect to Language Development
For English learners, use the Differentiation chart to plan and prepare for specific activities in every session.
DIFFERENTIATION | ENGLISH LEARNERS

STEM Stories (Grades 2–5)

PURPOSE:
Engage students with stories of people of diverse cultural backgrounds pursuing and achieving success in STEM careers

WHEN:
Anytime during the unit

WHERE:
Beginning of Unit: Teacher's Guide, Student Worktext


STEM Stories
Spotlight On...
Annie Jump Cannon
Annie Jump Cannon (1863–1941) was an astronomer. She created a system to classify stars that is still used by astronomers today. Annie's work gave her the nickname, "the census taker of the sky."
Math Practice 3 Connection
Reflective Questions

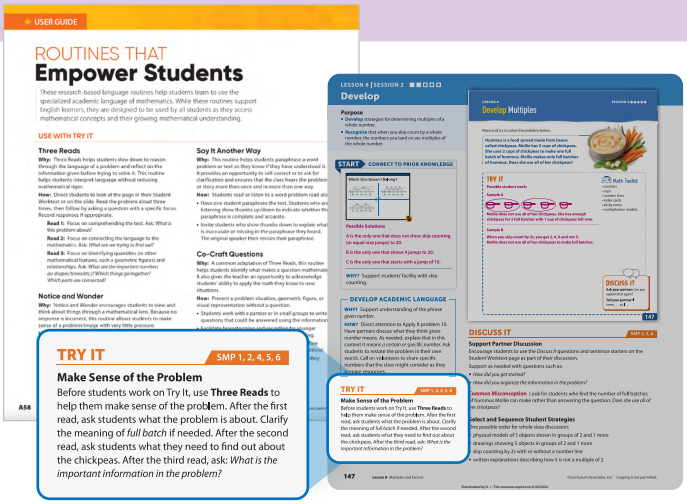
Language Routines

PURPOSE:
Use language routines to help students incorporate the specialized language of mathematics

WHEN:
During the Try It portion of the Try–Discuss–Connect framework

WHERE:
Try It in the Try–Discuss–Connect framework: Teacher's Guide

Descriptions in the front matter in the Teacher's Guide and in the Teacher Toolbox in the Program Implementation tab



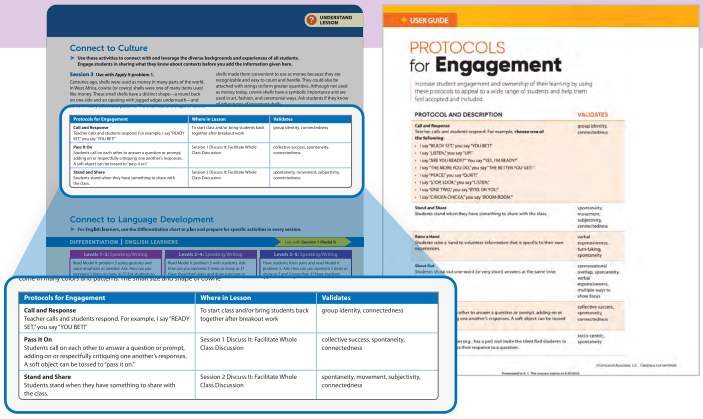
Protocols for Engagement

PURPOSE:
Increase student participation and involvement by using these protocols to validate and affirm cultural identities

WHEN:
During the sessions listed

WHERE:
Beginning of Lesson: Teacher's Guide

Descriptions in the User Guide in the Teacher's Guide or in the Teacher Toolbox in the User Guide on the Program Implementation tab



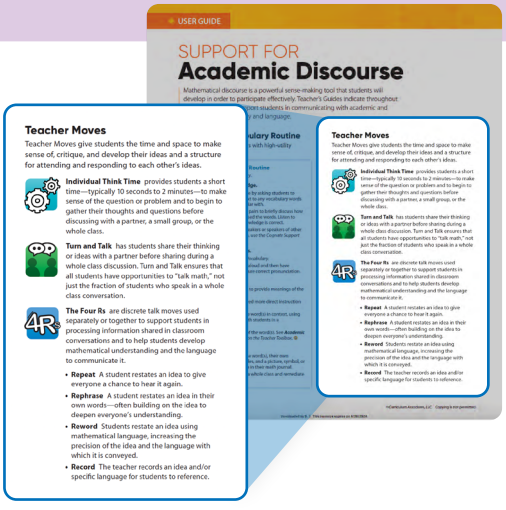
Teacher Moves

PURPOSE:
Give students time and space to make sense of, critique, and develop their ideas and a structure for attending and responding to each other's ideas

WHEN:
During the session as indicated in the Teacher's Guide

WHERE:
Embedded in Sessions: Teacher's Guide

Descriptions in the User Guide in the Teacher's Guide and in the Teacher Toolbox in the Program Implementation tab



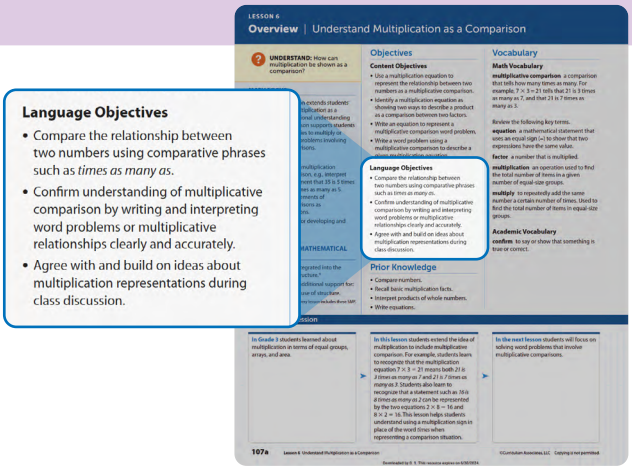
2024 Edition Only

Language Objectives

PURPOSE:
Sets expectations for what students can strive to do with language to demonstrate achievement of the Content Objectives

WHEN:
When planning for the lesson

WHERE:
Lesson Overview: Teacher's Guide

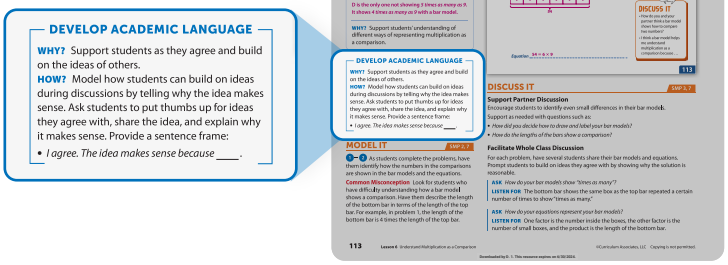


Develop Academic Language

PURPOSE:
Focuses on language at the word/phrase, sentence, or discourse level to support students in the development of the language needed to access and communicate about mathematics

WHEN:
During the Develop sessions

WHERE:
Develop Sessions: Teacher's Guide



Discourse Cards or Discourse Cube

PURPOSE:
Questions and sentence stems to use to support conversations during discussion time

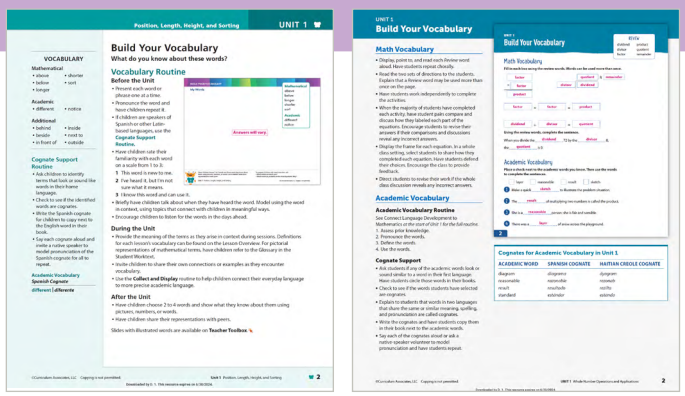
WHEN:
Anytime students are discussing

WHERE:
Physical Cards or Teacher Toolbox: Program Implementation tab

Vocabulary Support

Use these resources with all students.

Build Your Vocabulary



PURPOSE:

Use the Academic Vocabulary Routine and the Cognate Support Routine to help students build on prior knowledge of both math terms and academic vocabulary, then have students complete an activity to use the words in context

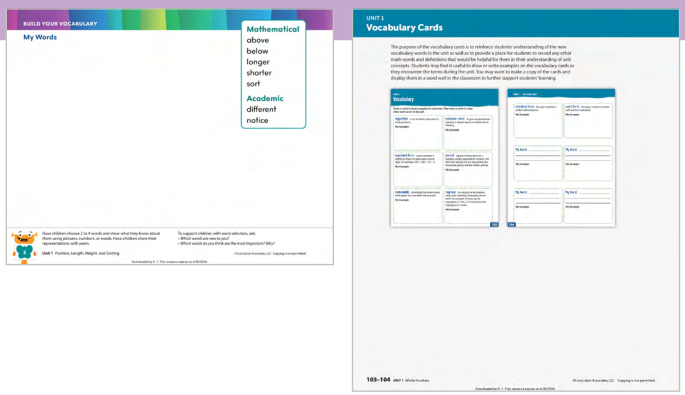
WHEN:

Before starting a new unit

WHERE:

Beginning of Unit: Teacher's Guide and Student Worktext

Vocabulary Review: Revisit Build Your Vocabulary (Grades K–1) or Vocabulary Cards (Grades K–5)



PURPOSE:

Guide students to reflect on the math terms and academic vocabulary learned during the unit

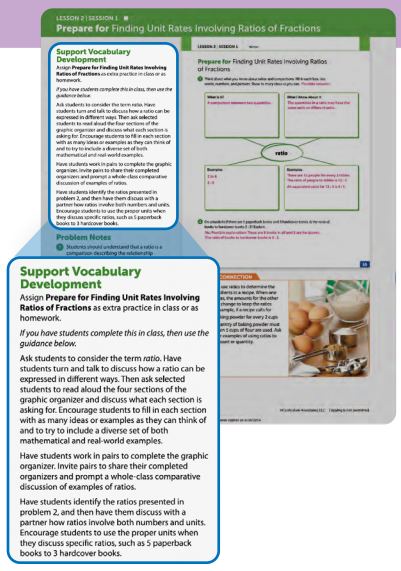
WHEN:

Before the unit assessment

WHERE:

End of Unit: Teacher's Guide, Student Worktext

Vocabulary Development (Grades 1–5)



PURPOSE:

Use graphic organizers to focus on key math terms in the lesson to support language development

WHEN:

During the Explore sessions

WHERE:

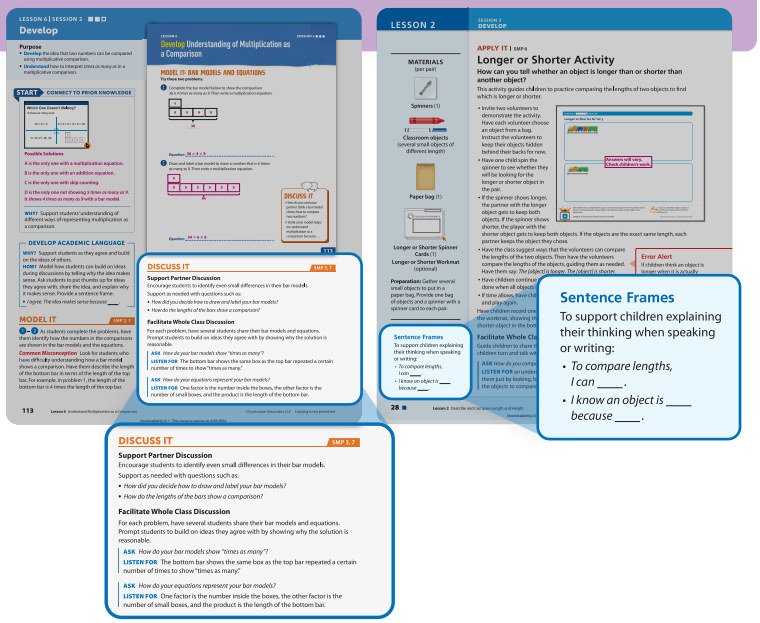
Explore Session Practice Pages: Teacher's Guide, Student Worktext

Sentence Starters and Frames

PURPOSE:
Use the questions and sentence starters to scaffold students' production of complete sentences using mathematics language with a partner

WHEN:
During the Apply It Activity (Grades K–1) and the Discuss It portion of the Try–Discuss–Connect framework (Grades 2–5)

WHERE:
Discuss It in the Try–Discuss–Connect framework: Teacher's Guide, Student Worktext

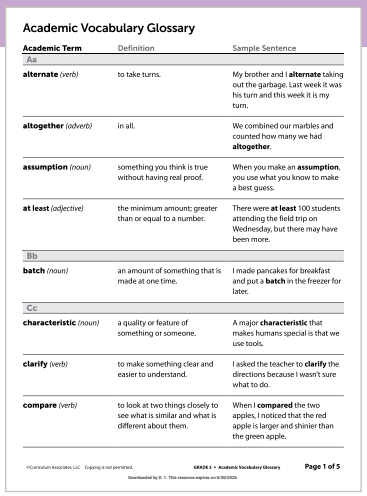


Academic Vocabulary Glossary

PURPOSE:
Use to model the academic vocabulary words in context and in a complete sentence

WHEN:
Anytime as needed

WHERE:
Teacher Toolbox: Program Implementation tab



Academic Vocabulary Glossary

Academic Term	Definition	Sample Sentence
Aa		
alternate *(verb)*	to take turns.	My brother and I **alternate** taking out the garbage. Last week it was his turn and this week it is my turn.
altogether *(adverb)*	in all.	We combined our marbles and counted how many we had **altogether**.
assumption *(noun)*	something you think is true without having real proof.	When you make an **assumption**, you use what you know to make a best guess.
at least *(adjective)*	the minimum amount; greater than or equal to a number.	There were **at least** 100 students attending the field trip on Wednesday, but there may have been more.
Bb		
batch *(noun)*	an amount of something that is made at one time.	I made pancakes for breakfast and put a **batch** in the freezer for later.
Cc		
characteristic *(noun)*	a quality or feature of something or someone.	A major **characteristic** that makes humans special is that we use tools.
clarify *(verb)*	to make something clear and easier to understand.	I asked the teacher to **clarify** the directions because I wasn't sure what to do.
compare *(verb)*	to look at two things closely to see what is similar and what is different about them.	When I **compared** the two apples, I noticed that the red apple is larger and shinier than the green apple.

English Learner Support

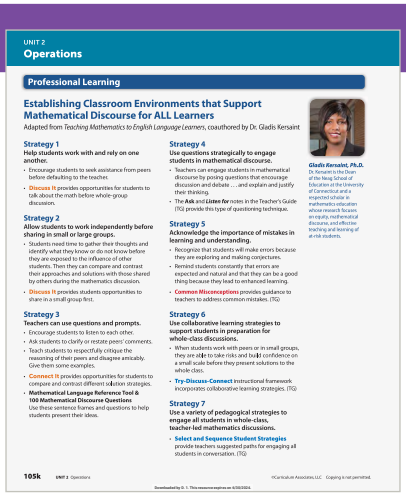
Use these resources with students who are learning English.

Professional Learning

PURPOSE:
Provides information and guidance related to engaging all students, supporting English Learners, and developing vocabulary

WHEN:
When planning for the unit

WHERE:
Beginning of Unit: Teacher's Guide



UNIT 2
Operations

Professional Learning

Establishing Classroom Environments that Support Mathematical Discourse for ALL Learners

Adapted from *Teaching Mathematics to English Language Learners*, coauthored by Dr. Gladis Kersaint.

Strategy 1
Help students work with and rely on one another.

Strategy 2
Allow students to work independently before sharing in small or large groups.

Strategy 3
Teachers can use questions and prompts.

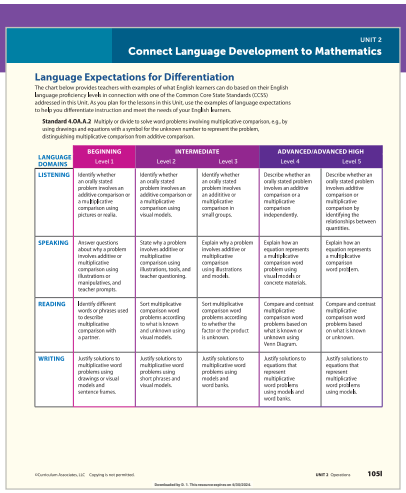
Strategy 4
Use questions strategically to engage students in mathematical discourse.

Strategy 5
Acknowledge the importance of mistakes in learning and understanding.

Strategy 6
Use collaborative learning strategies to support students in preparation for whole-class discussions.

Strategy 7
Use a variety of pedagogical strategies to engage all students in whole-class, teacher-led mathematics discussions.

Connect Language Development to Mathematics



PURPOSE:
Differentiate by understanding what students at different levels of language proficiency can typically do in relation to one math standard addressed in the unit

WHEN:
When planning for the unit

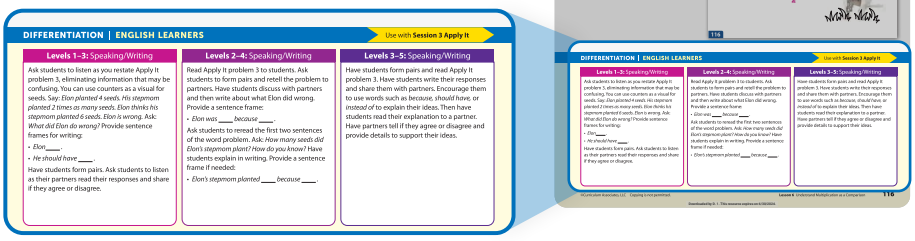
WHERE:
Beginning of Unit: Teacher's Guide

Connect to Language Development

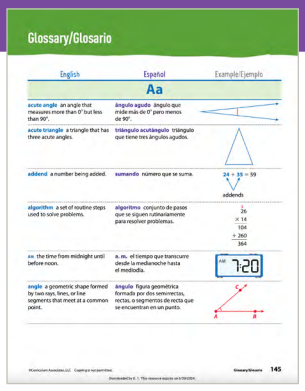
PURPOSE:
Scaffold language and provide access to support participation in understanding the mathematics

WHEN:
During the session

WHERE:
End of Session: Teacher's Guide



Multilingual Glossary of Math Terms (Available in 10 Languages)



PURPOSE:
Use to support students in their home language to reinforce the meaning of math terms

WHEN:
Anytime as needed

WHERE:
Teacher Toolbox: Program Implementation tab