i-Ready® Classroom Mathematics

Pilot Success Guide

Algebra 1 Extension

A1

SUPPORT • RESOURCES • TIPS • TOOLS • HOW TOS

2024–2025

Contents

Additional Support

Go to CurriculumAssociates.com/RCL2024Pilot or use the QR code to access digital resources that include classroom videos, links to help assign digital practice and assessments, efficacy research, and more!

Program Organization

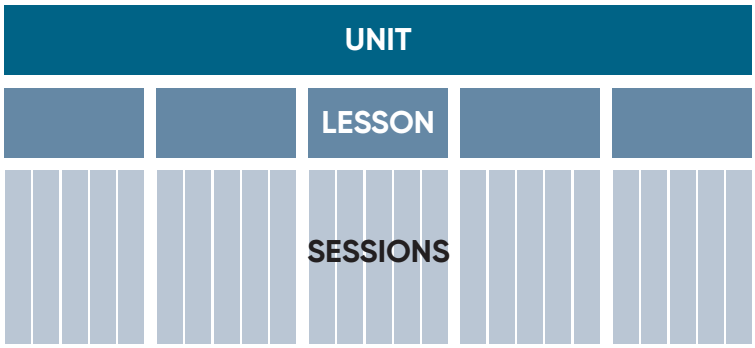
Make the best use of instructional time. The lessons in *i-Ready Classroom Mathematics Algebra 1* span multiple days and integrate several standards to help students make connections and develop a deep understanding.

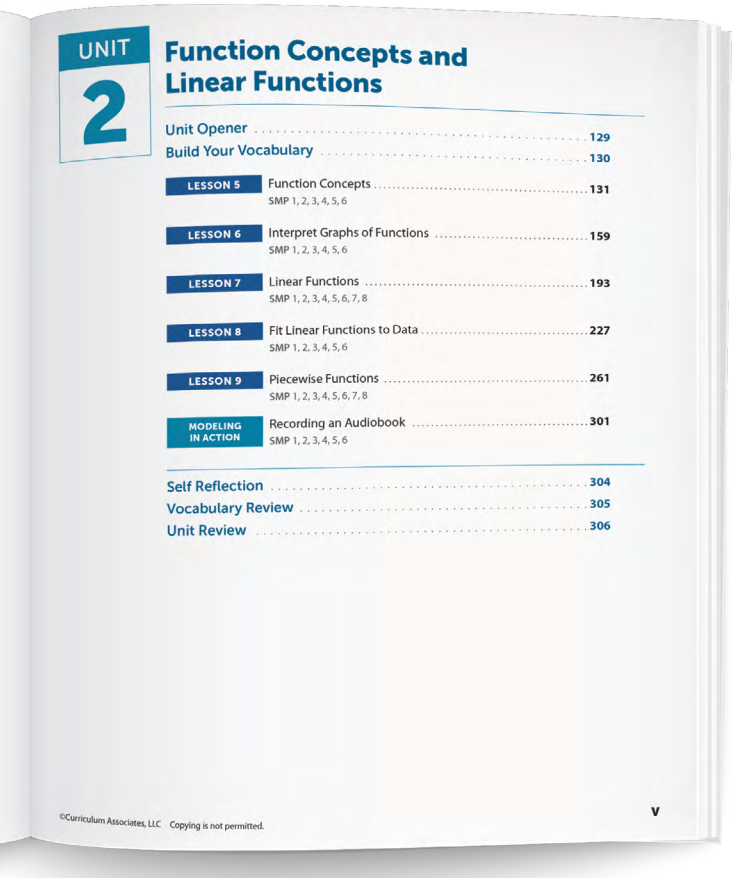
Unit Structure

Unit The unit structure embraces what students already know and uses their prior knowledge as a springboard to learn and apply new concepts.

Lesson The multiple-day lesson structure allows time for students to develop a deeper understanding of concepts and skills.

Session The lessons are divided into daily 45- to 60-minute sessions called Explore, Develop, and Refine.





UNIT 2 **Function Concepts and Linear Functions**

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Two Types of Lessons

i-Ready Classroom Mathematics Algebra 1 has **two different types of lessons** to address the unique approaches of the standards and to support a balance of conceptual understanding, application, and procedural fluency.

Strategy Lessons

Majority of Lessons in the Program

These lessons help students make important connections and deepen their understanding while acquiring and developing mathematical skills and strategies.

Modeling in Action Lessons

End of Each Unit

These lessons focus on the application of the modeling concepts that were taught in the unit and engage students with the full Modeling Cycle.

Structure of a Lesson

Within a lesson, each session (or day) plays a different role in supporting student understanding. This provides students with a variety of experiences and gives them the time they need to develop conceptual understanding, build procedural fluency, and apply concepts they've learned to new situations. Each session allows time for instruction, practice, and differentiation.

1 SESSION	1–4 SESSIONS	1 SESSION
Explore Session	**Develop** Session	**Refine** Session
FOCUS OF **EACH SESSION**		
• Connect prior knowledge. • Introduce new lesson content.	• Build multidimensional understanding using rich tasks, problem solving, discourse, and multiple representations. • Practice new skills and apply new learning.	• Strengthen skills and understanding with in-class practice time. • Reteach, reinforce, and extend learning.

A Powerful Instructional Framework: Try–Discuss–Connect

At the core of *i-Ready Classroom Mathematics Algebra 1* is the Try–Discuss–Connect instructional framework. This framework is used in every Strategy lesson and incorporates multiple routines and best practices into instruction while integrating language and mathematics to develop deeper understanding.

Try

Make sense of the problem.

Solve and support your thinking.

Discuss

Share your thinking with a partner.

Compare strategies.

Connect

Make connections and reflect on what you have learned.

Apply your thinking to new problems.

Student Processing Time
Prepares students to participate in the classroom conversation

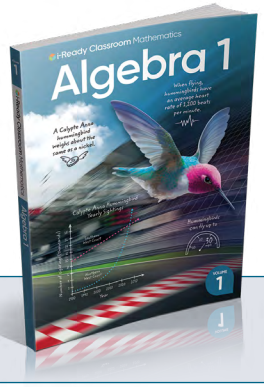
Teacher-Facilitated Student Discourse
Engages students in doing most of the thinking and talking to better retain what they learn

Practice
Reinforces understanding

Quick-Start Guide:
Algebra 1

Overview of an Algebra 1 Lesson

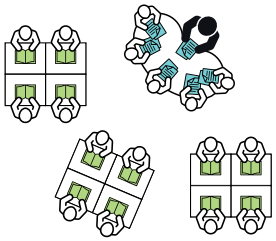
The images shown are an example of how each day of instruction might look. However, *i-Ready Classroom Mathematics Algebra 1* is intended to be flexible based on the needs of students to accomplish learning goals.

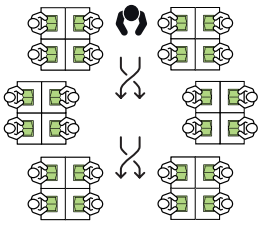


Explore
1 DAY

- Connect to prior knowledge
- Introduce new lesson content

Start Activity	Connect to Prior Knowledge	Whole Class Exploration
• Always, Sometimes, Never • Same and Different • Which One Doesn't Belong? • Which Would You Rather?	• Address prerequisite skills based on Grade-Level Planning (Prerequisites) report • Whole class or small groups	*See Teacher's Guide*

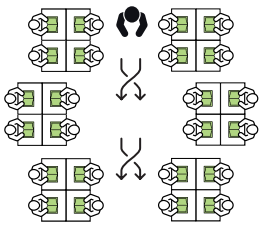


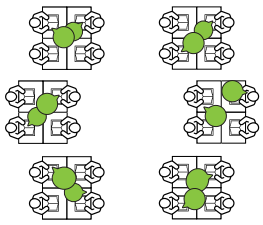


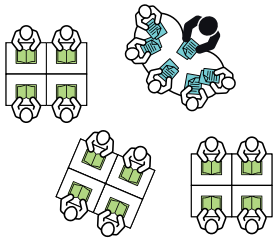
Develop
1–4 DAYS

- Build multidimensional understanding using rich tasks, problem solving, discourse, and multiple representations
- Practice new skills and apply new learning

Start Activity	Try–Discuss–Connect Framework		
• Always, Sometimes, Never • Same and Different • Which One Doesn't Belong? • Which Would You Rather?	Student Processing Time	Student-Centered Math Discussions	Deepen Learning, Differentiation, and Practice



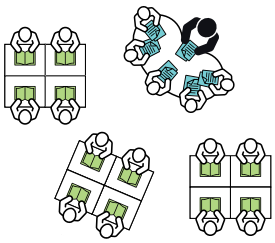




Refine
1 DAY

- Strengthen skills and understanding with in-class practice time
- Reteach, reinforce, and extend learning

Start Activity	Differentiation and Practice Options
• Check for Understanding • Error Analysis	**Student-Led Options:** Center Activities and Enrichment Activities **Teacher-Led Options:** Teacher's Guide Activities, Tools for Instruction, and Center Activities **Independent Options:** Practice Pages, Fluency and Skills Practice, Unit Review, and Digital Practice,* and Cumulative Practice



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A1 CHECKLIST Explore

Connect to and build prior knowledge | Introduce new lesson content
As you prepare for the Explore sessions, review this guide while filling out your planning template.

- ☐ Review the Lesson Opener.
- ☐ Review the Session Overview: Learning Target(s) and Language Supports.
- ☐ Review the **Start Activity**.
- ☐ Download the presentation slides for the Explore session.*

☐ Refer to **Grade-Level Planning (Prerequisites) report*** groupings and use the *Recommendations* resources.

- On page 1 of the *Recommendations*, review the *Overview* section that indicates which prerequisite skills are directly connected to each of the upcoming lessons.
- If there are multiple prerequisites, prioritize the Essential Skill or the most appropriate prerequisite skill.
- Gather the associated resources to plan for prerequisite review below.

Prerequisite Resource Options Based on Grade-Level Planning (Prerequisites) Report*

Student-Led Options	Independent Options	Whole Class/Teacher-Led Options
☐ **Center Activities** (available under Math Center Activities on the Teacher Toolbox) ☐ **Enrichment Activities** (under the Extend column on the Teacher Toolbox)	☐ **Fluency and Skills Practice** (on the Teacher Toolbox) ☐ **Practice Pages** (in the Student Worktext)	☐ **Tools for Instruction** (under the Reteach column on the Teacher Toolbox) ☐ **Hands-on Activities and Visual Models** (in the Teacher's Guide)

- ☐ **Whole Class:** Introduce new lesson content. Students transfer prerequisite skills exposure to new content.
- ☐ **Review Try It and Language Routine**
- ☐ **Review Discuss It**, including Select and Sequence Student Strategies and Ask/Listen Fors
- ☐ **Review Connect It** (Look Back/Look Ahead)
- ☐ **Review Key Idea and Differentiation Activity**

☐ **When applicable, review the Desmos Graphing Calculator Quick Connect** (digital/interactive option tied to a specific problem in each Lesson).

☐ **Exit Ticket**

☐ **Additional Practice/Homework**

- Develop Math Language

☐ **Practice** (Green Pages)

☐ **Fluency and Skills Practice** (in the Teacher Toolbox)

☐ **Extra Practice** (at the end of the lesson)

☐ **Cumulative Practice** (at the end of the volume)

☐ Consider how families will access the **Family Letter**:

- Family Resources via Student eBook (multiple languages available)

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A1 PLANNING GUIDE Explore

Consider how you will use the Lesson Opener to build anticipation and show how what students are learning can be applied outside the classroom.

Start Activity		
☐ Which One Doesn't Belong? ☐ Which Would You Rather? ☐ Always, Sometimes, Never ☐ Same and Different	**Engagement Protocols:**	**Support for English Learners:**
Student-Led Options	**Independent Options**	**Teacher-Led**
☐ **Center Activities** (under Math Center Activities on the Teacher Toolbox) ☐ **Enrichment Activities** (under the Extend column on the Teacher Toolbox)	☐ **Fluency and Skills Practice** (on the Teacher Toolbox) ☐ **Practice Pages** (in the Student Worktext)	☐ **Tools for Instruction** (under the Reteach column on the Teacher Toolbox)
Whole Class		
☐ **Try It** What language routine will you use to support students to make sense of the problem?	☐ **Discuss It** How will you support partner discussions? How will you support whole class discussion?	☐ **Connect It** How will you support Connect It (Look Back/Look Ahead)? How will you use the graphic organizer to build students' use of math terms and academic language? Review the Key Idea and consider the Differentiation Activity (if needed).
Practice Options	**Desmos Graphing Calculator Quick Connect (when applicable)**	
☐ Practice Pages ☐ Fluency and Skills Practice	☐ Consider how students will engage with the specific problem. (They can complete the problem in their Student Worktext, using Desmos Graphing Calculator Quick Connect, or both.)	

A1 CHECKLIST Develop

Build multidimensional understanding using rich tasks, problem solving, discourse, and multiple representations | Explore new strategies and develop new learning As you prepare for the Develop sessions, review this checklist while filling out your planning template.

- ☐ Review the **Session Overview: Learning Target(s) and Language Supports**.
- ☐ Review the **Start Activity**.
- ☐ Download the **presentation slides for the Develop session**.*

Try It: Students make sense of the problem and persevere in solving them.

Make Sense of the Problem

- ☐ Use the language routine to build student ownership of reading the problem and building their understanding of the problem before attempting to solve (Three Reads, Notice and Wonder, Co-Craft Questions, Say It Another Way).

Solve and Support Thinking

- ☐ Provide access to and encourage use of various tools and manipulatives suggested in the Teacher's Guide so students can solve using the method or strategy of their choosing.

Effective Practices

- ☐ Give students time to think, but don't wait for all students to develop a full solution.
- ☐ Circulate to observe student work and select and sequence student strategies to be shared.

Discuss It: Students share ideas with a partner, then discuss and compare teacher-selected strategies.

Share Your Thinking with a Partner

- ☐ Students discuss their and their partner's strategies in preparation for whole class discussion, including why it is reasonable in the context of the problem and defending their thinking verbally and using representations.
- ☐ Students show they are listening by rephrasing and asking questions of classmates to clarify understanding and discuss similarities and differences.

Compare Class Strategies

- ☐ Lead students through analysis of preselected strategies by probing the entire class to make connections between and across shared strategies.
- Guidance in Teacher's Guide:
  - Whole Class Discussion
  - Ask/Listen For
  - Select and Sequence Student Strategies

Effective Practices

- ☐ Display session slides* and Discourse Cards.
- ☐ Display preselected student strategies. Then use individual think time and partner talk to promote students' ownership of sense making.
- ☐ Prompt students to recognize, explain, and build on classmates' reasoning and/or errors in a solution strategy.

Connect It: Dive deeper into conceptual understanding and strategies.

Make Connections and Reflect

- ☐ Display the Picture It/Model It/Analyze It slides. Ask the remaining aligned questions from the Teacher's Guide.
- ☐ Select one to two Connect It questions. Have students complete them verbally and/or in writing individually, in pairs, or as a class.

Apply Your Thinking to a New Problem

- ☐ Students practice by answering Apply It problems.
- ☐ Make Hands-On or Visual Activities available to all students.

Effective Practices

- ☐ Integrate a few of the Connect It questions into the Discuss It section.
- ☐ Provide the lesson-specific Enrichment Activity to all students.
- ☐ Use the green Additional Practice pages in the Student Worktext as needed.

- ☐ **When applicable, review the Desmos Graphing Calculator Quick Connect** (digital/interactive option tied to a specific problem in each lesson).
- ☐ **Exit Ticket**

Practice

- ☐ Apply It Practice
- ☐ Practice Pages
- ☐ Fluency and Skills Practice
- ☐ Digital Practice*

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PLANNING GUIDE

Develop

Start Activity		
☐ Which One Doesn't Belong? ☐ Which Would You Rather? ☐ Always, Sometimes, Never ☐ Same and Different	**Engagement Protocols:**	**Support for English Learners:**
Try It: Students make sense of the problem and persevere in solving them.		
Make Sense of the Problem *Which language routine will you use? (see Teacher's Guide)*	**Solve and Support Thinking** *How will you support students in solving and supporting their thinking?*	**Effective Practices** ☐ Give students time to think, but don't wait for all students to develop a full solution. This is "think time." ☐ Circulate the room to observe student work, listen to discussions, and select and sequence the student strategies to be shared in a way that builds thinking.
Discuss It: Students share ideas with a partner, then discuss and compare teacher-selected strategies.		
Share Your Thinking with a Partner *Which student strategies are best to select for class analysis? (see Select and Sequence Strategies guidance in the Teacher's Guide)*	**Compare Class Strategies** *Which recommended questions from the Teacher's Guide will you use?*	**Effective Practices** ☐ Display and pose a sentence starter/question using session slides* and Discourse Cards. ☐ Display preselected student strategies, then provide individual think time and partner talk to build student ownership of making sense of each representation. ☐ Prompt students to recognize, explain, and build on classmates' reasoning and/or errors in a solution strategy.
Connect It: Dive deeper into conceptual understanding and strategies.		
Make Connections and Reflect on What You Have Learned *Which two to three Connect It questions will you address as a class?*	**Apply Your Thinking to a New Problem** *Will students complete the Apply It practice with a partner or independently?*	**Effective Practices** ☐ Integrate a few of the Connect It questions into the Discuss It section. ☐ Early finishers? Provide students with a practice option. ☐ For Additional Practice: See the green Practice pages in the Student Worktext.
Practice Options	**Desmos Graphing Calculator Quick Connect (when applicable)**	
☐ Apply It Practice ☐ Practice Pages ☐ Fluency and Skills Practice ☐ Digital Practice*	☐ Consider how students will engage with the specific problem. (They can complete the problem in their Student Worktext, using Desmos Graphing Calculator Quick Connect, or both.)	

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A1 CHECKLIST Refine

Strengthen skills and understanding with in-class practice | Reteach, reinforce, and extend learning As you prepare for the Refine sessions, review this guide to focus on grade-level differentiation and cumulative lesson practice while filling out your planning template.

- ☐ Review the Session Overview: Learning Target(s) and Language Supports.
- ☐ Review Start: Check for Understanding.
- ☐ Download the Refine session slides.*

- ☐ **Use the Start Activity and the Differentiation Guidance** on the Session Overview to identify differentiated activities from the options below.
- ☐ **When applicable, review the Desmos Graphing Calculator Quick Connect** (digital/interactive option tied to a specific problem in each lesson).

Student-Led Options	Independent Options	Whole Class/Teacher-Led Options
☐ **Center Activities** (available under Math Center Activities on the Teacher Toolbox)	☐ **Apply It Practice**	☐ **Differentiation Activities** (Reteach, Reinforce, and Extend)
☐ **Enrichment Activities** (under the Extend column on the Teacher Toolbox)	☐ **Practice Pages**	☐ **Tools for Instruction** in Teacher Toolbox.
	☐ **Fluency and Skills Practice**	
	☐ **Digital Practice***	
	☐ **Cumulative Practice**	
	☐ **Unit Review**	

☐ **Review Math Journal and Self-Check**

Review Assessment Options:

- ☐ **Lesson Quiz** (print)
- ☐ **Comprehension Check** (digital)*

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PLANNING GUIDE

Refine

Start Activity		
☐ Check for Understanding	**Support for English Learners:**	
Student-Led Options	**Independent Options**	**Teacher-Led Options**
☐ **Center Activities** (under Math Center Activities on the Teacher Toolbox) ☐ **Enrichment Activities** (under the Extend column on the Teacher Toolbox)	☐ **Apply It Practice** ☐ **Practice Pages** ☐ **Fluency and Skills Practice** ☐ **Digital Practice*** ☐ **Cumulative Practice** ☐ **Unit Review**	☐ **Tools for Instruction** (in the Teacher Toolbox) ☐ **Differentiation Activities** (Reteach, Reinforce, and Extend)
Desmos Graphing Calculator Quick Connect (when applicable)		
☐ Consider how students will engage with the specific problem. (They can complete the problem in their Student Worktext, using Desmos Graphing Calculator Quick Connect, or both.)		
Determine Assessment Option:		
☐ Lesson Quiz (print) ☐ Comprehension Check (digital)*		

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FAQ

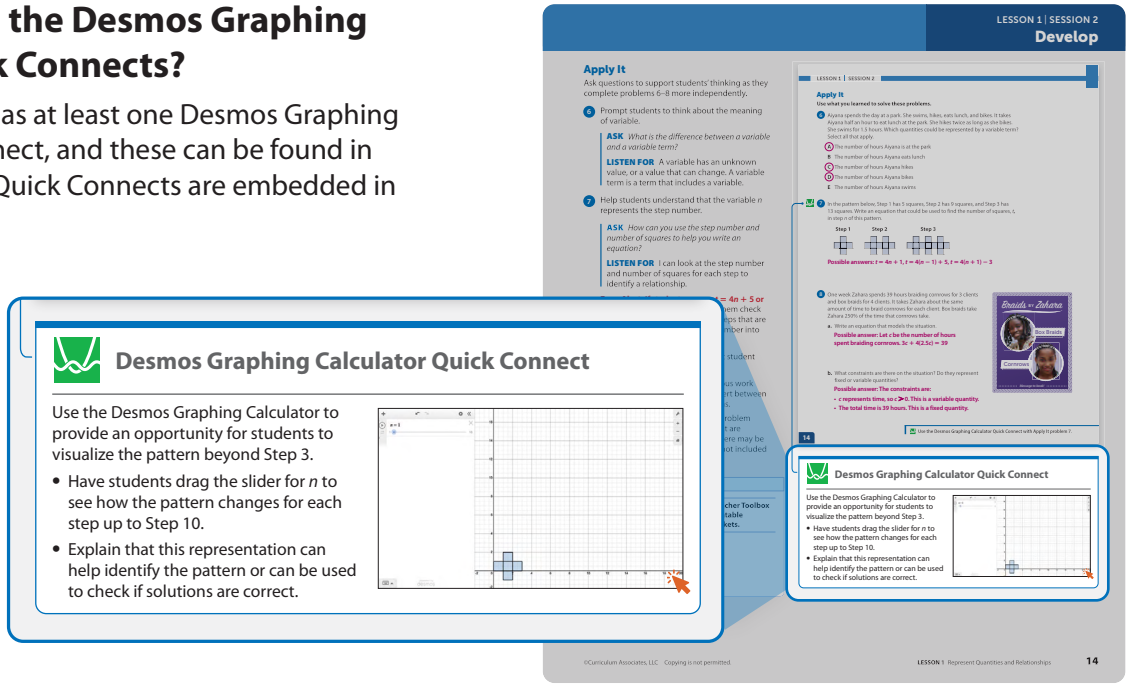
How can I use Desmos Graphing Calculator Quick Connects?

Overview

Desmos Graphing Calculator Quick Connects are tasks preconfigured in the Desmos Graphing Calculator and are designed to help students visualize abstract algebraic concepts, see the relationship between variables, and understand functions through graphical representations.

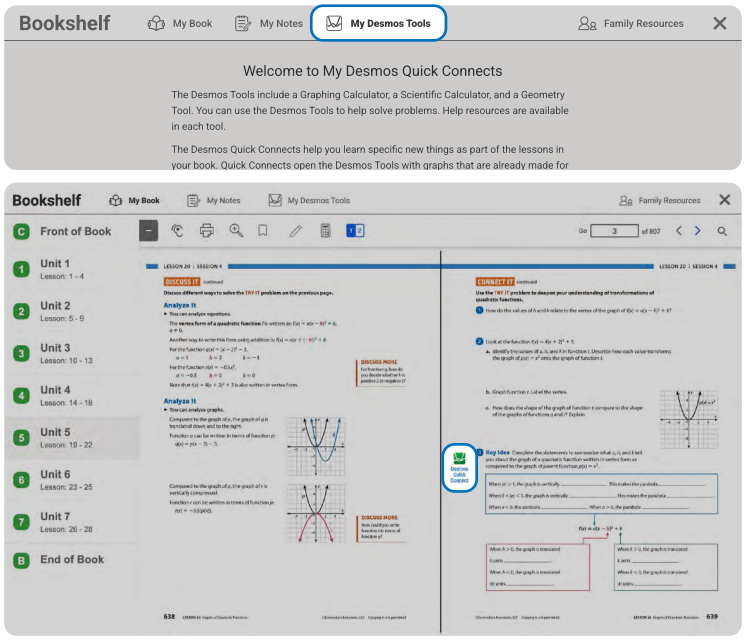
Where can I find the Desmos Graphing Calculator Quick Connects?

Almost every lesson has at least one Desmos Graphing Calculator Quick Connect, and these can be found in any session. Desmos Quick Connects are embedded in the Teacher's Guide.



Where can students find the Desmos Graphing Calculator Quick Connects?

In the Student Worktext, problems connected with a Desmos Graphing Calculator Quick Connect are marked with a symbol. Students can find the Desmos Quick Connect on their Student Bookshelf either from the page where it appears in their student eBook or in the **My Desmos Tools** tab.

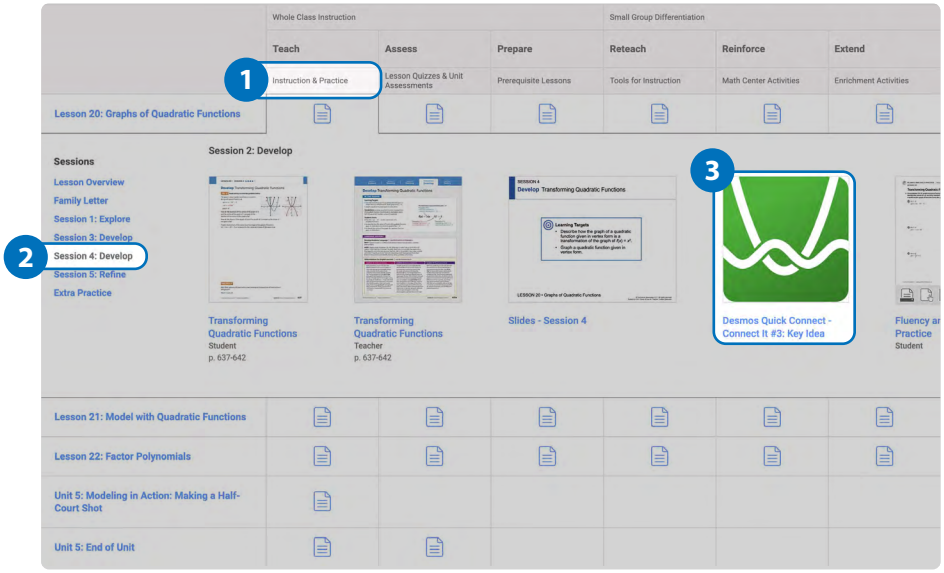


How can I preview the Desmos Graphing Calculator Quick Connects before assigning them to my students?

Educators can preview the Desmos Quick Connects in two ways, either from the Instruction & Practice tab in the Teacher Toolbox or from the resource available in the Program Implementation tab.

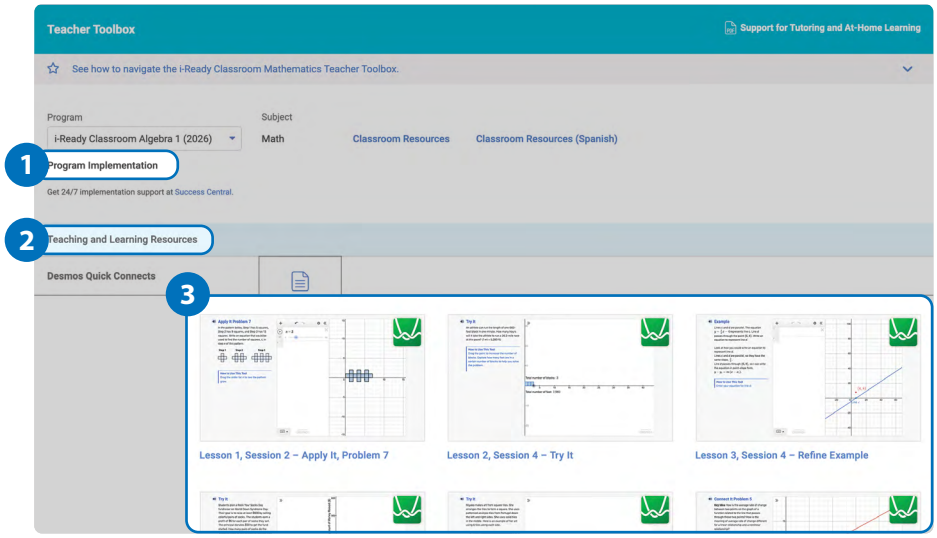
Option 1

1. From the Teacher Toolbox, select the **Instruction & Practice** tab.
2. Select a **session** that has a Desmos Quick Connect.
3. **Click** on the Desmos Quick Connect.



Option 2

1. From the Teacher Toolbox, select the **Program Implementation** tab.
2. Scroll down to the **Teaching and Learning Resources** section.
3. Select the **Desmos Graphing Calculator Quick Connects resource**.



FAQ

How do I enable the Algebra 1 eBook for Students?

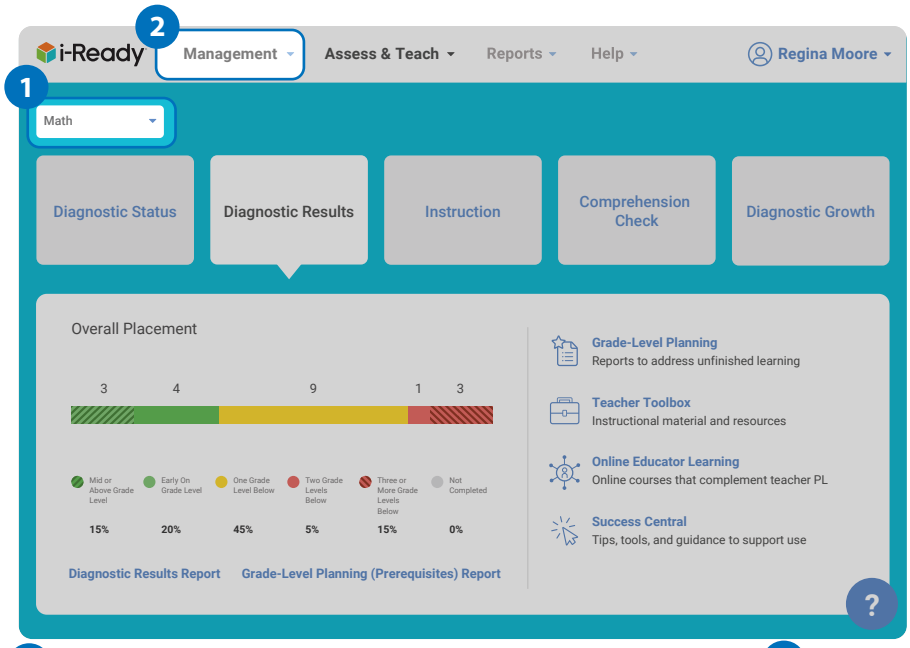
Overview

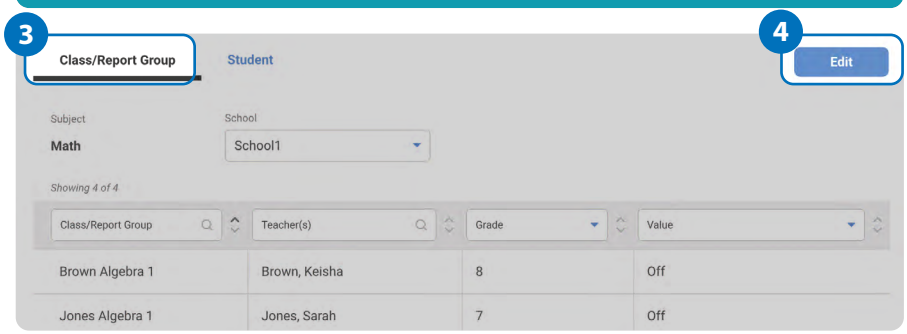
Students are automatically assigned the eBook that corresponds to their grade. Since Algebra 1 is not associated with a grade level, educators must manually turn on the Algebra 1 eBook for their students. Educators can assign up to two eBooks per student,* for example their chronological grade and Algebra 1.

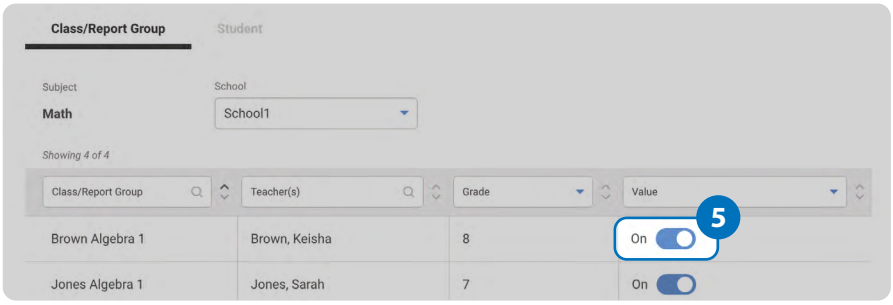
Enable the Algebra 1 eBook

To give all students in a class/report group or individual students access to the Algebra 1 eBook, follow the steps below.

1. Log in to the *i-Ready Connect* dashboard and select **Math**.
2. Select **Management** from the top navigation bar.
3. Select the **Class/Report Group** or **Student** tab. (Example shows Class/Report Group, but Student instructions are the same.)
4. Click **Edit** to enable the Algebra 1 eBook On/Off feature.
5. Select the Algebra 1 **Class/Report Group** or **Student** and toggle the value switch to **On**.



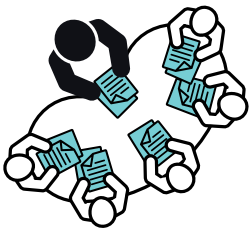




*If a student already has access to two eBooks (e.g., Grade 7 and Grade 8) and the Algebra 1 eBook is enabled, then the student will have access to the higher grade and Algebra 1.

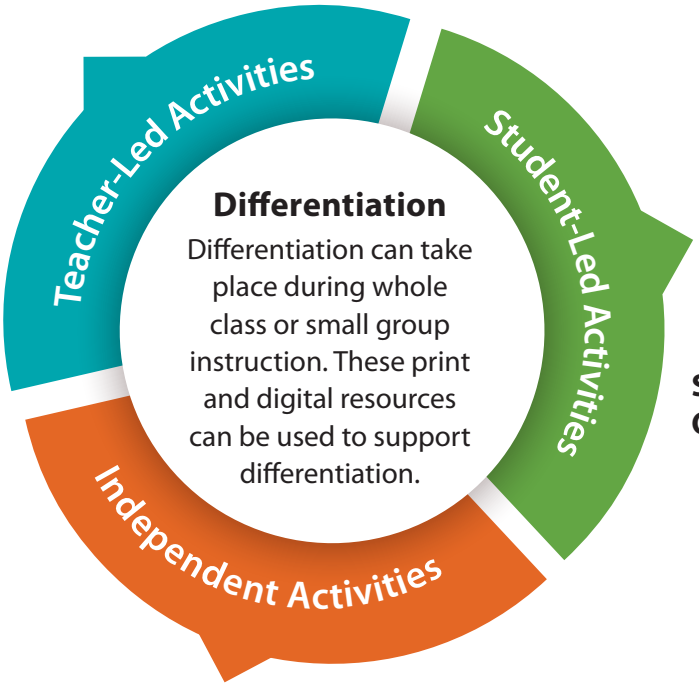
Differentiation Resources

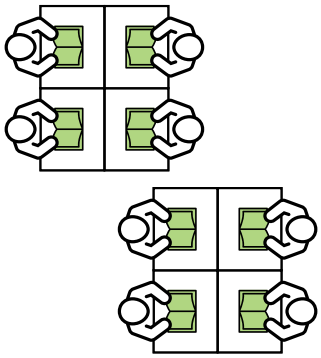
Educators using *i-Ready Classroom Mathematics* may decide to differentiate during instruction to support students' learning needs. Use the information below to better understand the differentiation opportunities available when using this program.



Teacher-Led Activity Options

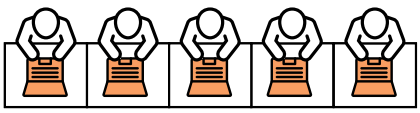
- Hands-On Activitites and Visual Models
- Deepen Understanding
- Challenge Activities
- Tools for Instruction
- Prerequisite Lessons*





Student-Led Activity Options

- Math Center Activities
- Enrichment Activities
- Vocabulary Review



Independent Activity Options

- Practice Pages
- Fluency and Skills Practice
- Learning Games
- Unit Review
- Cumulative Practice

*Algebra 1 will be available for Back to School 2025

Teacher-Led Activities

Use these resources when working with a small group of students.

Hands-On Activities and Visual Models

PURPOSE:
Activities to use with students who are approaching proficiency and would benefit from using physical manipulatives or visuals

WHEN:
After the Connect It or Model It as outlined in the Teacher's Guide

WHERE:
Embedded in each Explore and Develop Session: Teacher's Guide

DIFFERENTIATION | RETEACH OR REINFORCE

Visual Model

Use a graph to represent solutions to an equation in two variables.

If students are unsure about how a graph represents solutions of an equation in two variables, then use this activity to help them make a table of values and graph a linear equation.

Materials For each student: graph paper, ruler

- Have students make a table of values to show solutions to $y = -5x + 25$.
- Have students draw and label an x- and y-axis on their graph paper. Prompt students to consider what scale to use to represent their table of values on a coordinate plane.
- Have students use their table of values to plot ordered pairs. Ask: *What does each ordered pair you plotted represent?* [One solution to the equation $y = -5x + 25$]
- Ask: *x and y are variables. What does this mean for the solutions of equations in two variables, like $y = -5x + 25$?* [A solution to an equation in two variables is a value of x and a value of y that together make the equation true.] Ask: *How can you represent all the solutions to the equation?* [Draw a line through the points.]

Deepen Understanding

PURPOSE:
Activities to use with students who can be challenged to think deeply about the mathematics they are learning

WHEN:
During Discuss It or Connect It as outlined in the Teacher's Guide

WHERE:
Embedded in each Develop Session: Teacher's Guide

DIFFERENTIATION | EXTEND SMP 7

Deepen Understanding

Using Structure to Understand the Graphs and Slopes of Vertical and Horizontal Lines

Guide students to connect the graphs of vertical and horizontal lines to slope.

ASK *What does the graph of $x = 5$ look like? What does $x = 5$ mean?*
LISTEN FOR The graph is a vertical line through (5, 0). Every value where x is 5 is on the line, so any point on the line can be written as $(5, y)$.

ASK *What does the graph of $y = 5$ look like? What does $y = 5$ mean?*
LISTEN FOR The graph is a horizontal line through (0, 5). Every value where y is 5 is on the line, so any point on the line can be written as $(x, 5)$.

ASK *What is the slope of a horizontal line? What is the slope of a vertical line?*
LISTEN FOR For any horizontal line, the change in y is 0. The change in x is any number: $\frac{0}{x} = 0$. For any vertical line, the change in y is any number. The change in x is 0: $\frac{y}{0} =$ undefined.

Challenge Activities

PURPOSE:
Activities to use with students who can be challenged beyond proficiency of the learning targets for the lesson

WHEN:
Refine sessions during group time

WHERE:
Embedded in each Refine session: Teacher's Guide

EXTEND

Challenge

Solve multi-step unit rate problems.

Students extending beyond proficiency will benefit from solving multi-step problems involving complex fractions.

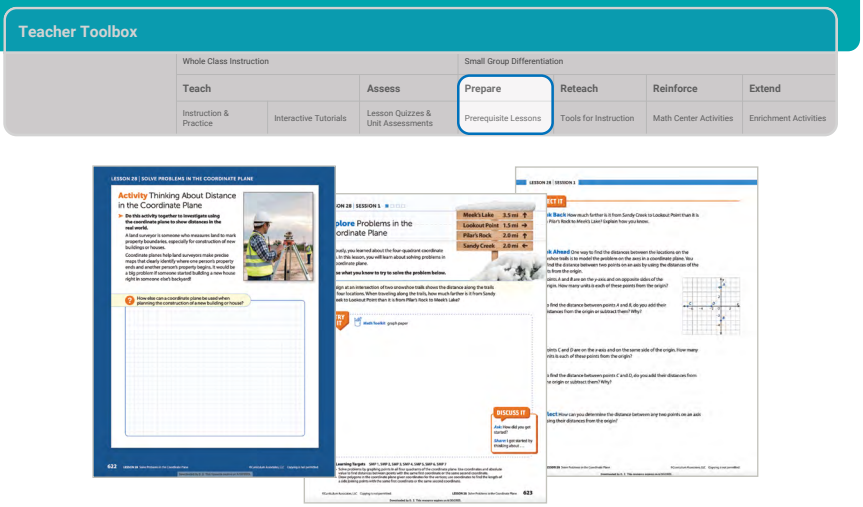
- Have students work with a partner to solve this problem: *A rocket travels $\frac{90}{7}$ kilometers on $\frac{2}{5}$ liter of hydrogen fuel. How far will it travel on 14 liters of hydrogen?*
- Students may find the unit rate by dividing $\frac{90}{7}$ kilometers by $\frac{2}{5}$ liter, and then multiplying the unit rate by 14 to find the solution: 450 kilometers.
- Repeat, this time with partners suggesting other values for the quantities in the problem.

Prerequisite Lessons*

PURPOSE:
Use with students based on identified needs from the Prerequisites report

WHEN:
Before lessons as needed

WHERE:
Each Lesson: Teacher's Guide

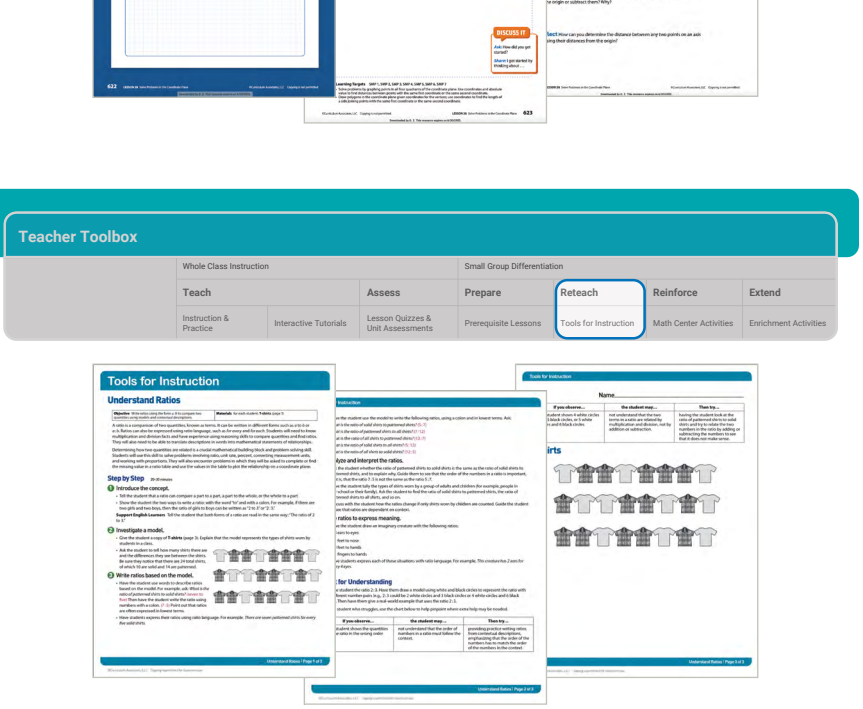


Tools for Instruction

PURPOSE:
Targeted activities to use with students based on assessment results

WHEN:
After a lesson quiz or comprehension check

WHERE:
Each Lesson: Teacher's Guide

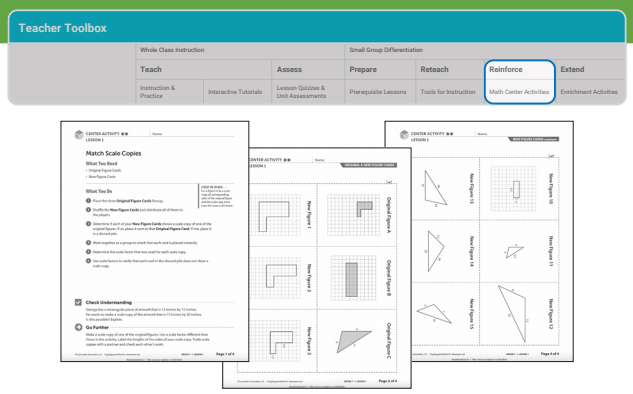


*Algebra 1 will be available for Back to School 2025

Student-Led/Partner Activities

Use these resources when students are working with partners or in small groups.

Math Center Activities

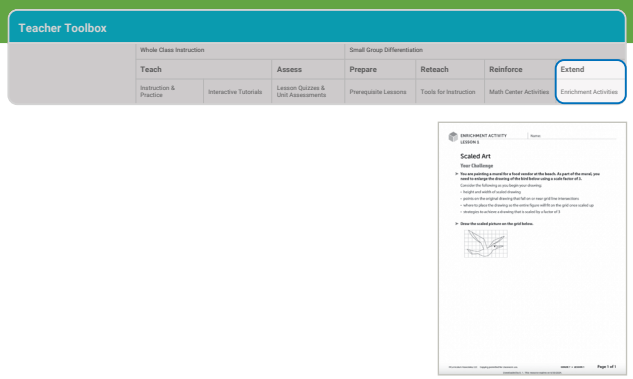


PURPOSE:
Activities for students to use collaboratively to reinforce the lesson skills

WHEN:
After a lesson quiz or comprehension check

WHERE:
Each Lesson: Teacher Toolbox

Enrichment Activities

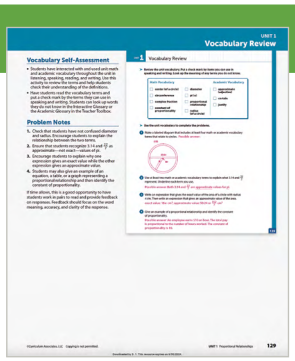


PURPOSE:
Activities provide an additional challenge for students who have achieved proficiency

WHEN:
After a lesson quiz or comprehension check

WHERE:
Each Lesson: Teacher Toolbox

Vocabulary Review



PURPOSE:
To provide students an opportunity to develop academic and math vocabulary and use the vocabulary to complete problems

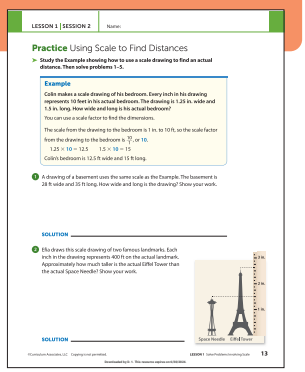
WHEN:
In preparation for a unit assessment

WHERE:
End of Unit: Teacher's Guide and Student Worktext

Independent Activities

Use these resources when students are working individually.

Practice Pages

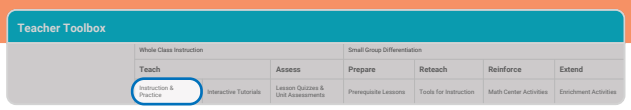


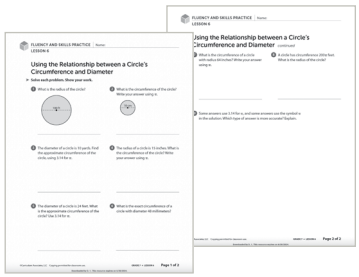
PURPOSE:
To provide students opportunities to solidify conceptual understanding and build procedural fluency

WHEN:
After Explore and Develop Sessions (Grades 6–8 and Algebra 1) and Refine Sessions (Algebra 1)

WHERE:
End of Session: Teacher's Guide and Student Worktext

Fluency and Skills Practice





PURPOSE:
Use for target practice to build mathematical skills

WHEN:
After Explore sessions for Algebra 1 and after Develop sessions for Grades 6–8 and Algebra 1

WHERE:
Explore (Algebra 1) or Develop (Grades 6–8 and Algebra 1) sessions: Teacher Toolbox

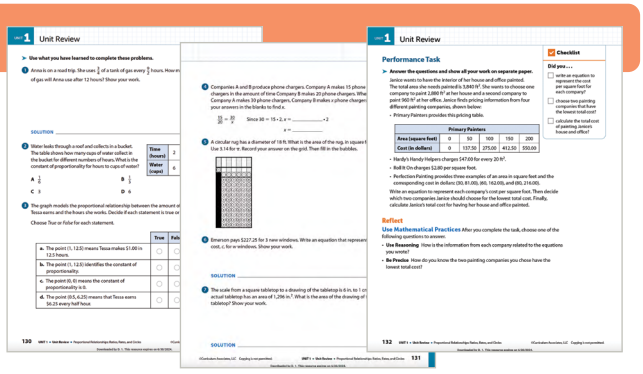
Learning Games

PURPOSE:
Use to engage students in math fluency practice

WHEN:
Anytime

WHERE:
Student Dashboard

Unit Review

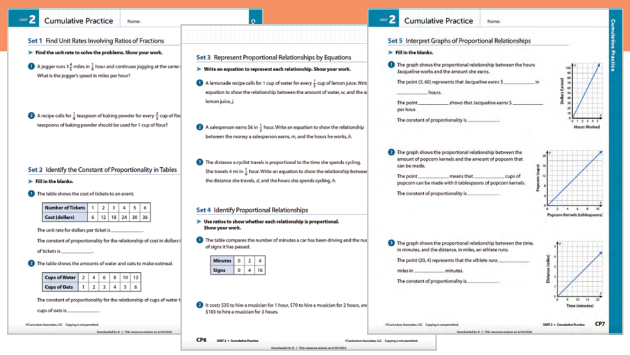


PURPOSE:
Practice problems to reinforce unit learning objectives

WHEN TO USE:
Before the unit assessment

WHERE:
End of Unit: Teacher's Guide and Student Worktext

Cumulative Practice



PURPOSE:
Spiral review of key ideas to revisit previous learning and deepen understanding

WHEN:
Anytime during the unit

WHERE:
At the end of each volume: Teacher's Guide and Student Worktext

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

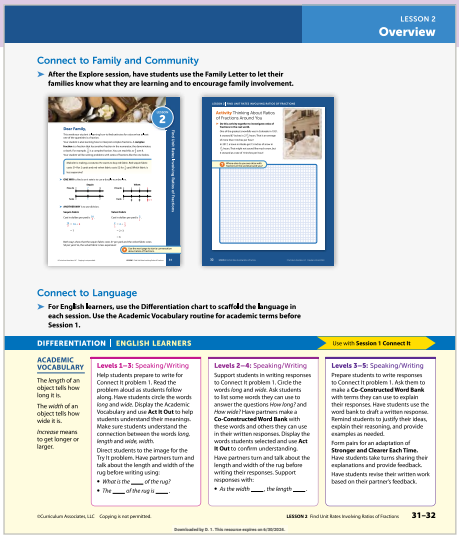
Family Letter (Available in 9 Languages)

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 eight additional languages)
- Teacher's Guide—English (Grades 6–8)
- Student Worktext—English (Grades 6–8)

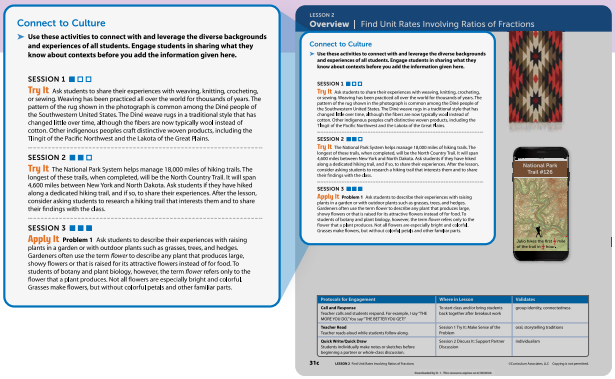


Connect to Culture

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

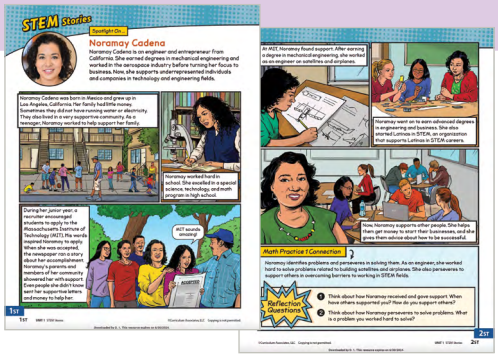


STEM Stories

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



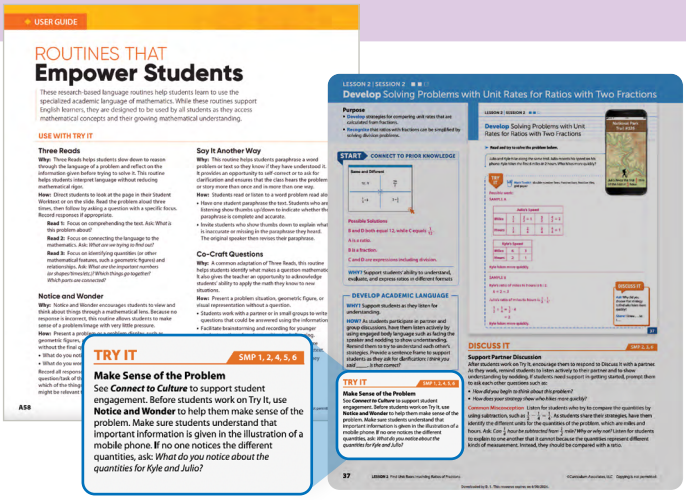
Language Routines

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



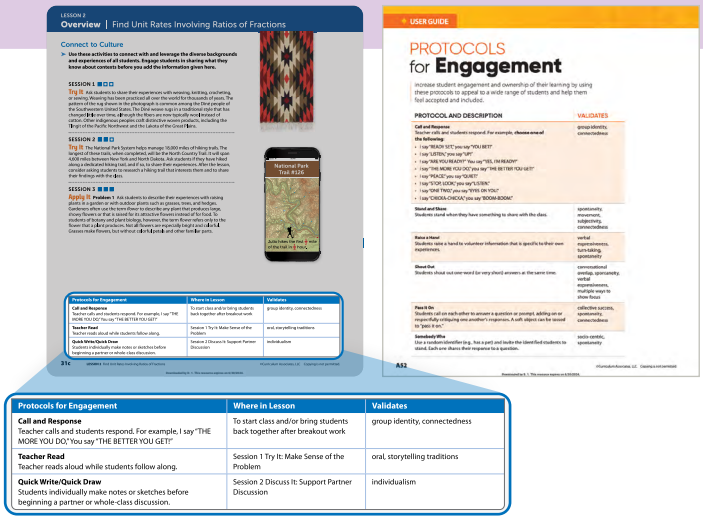
Protocols for Engagement

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

WHEN:
During the sessions listed

WHERE:
Beginning of Lesson (Grades 6–8) or Embedded in Sessions (Algebra 1): 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



Protocols for Engagement	Where in Lesson	Validates
Call and Response Teacher calls and students respond. For example, I say "THE MORE YOU DO," You say "THE BETTER YOU GET!"	To start class and/or bring students back together after breakout work	group identity, connectedness
Teacher Read Teacher reads aloud while students follow along.	Session 1 Try It: Make Sense of the Problem	oral, storytelling traditions
Quick Write/Quick Draw Students individually make notes or sketches before beginning a partner or whole-class discussion.	Session 2 Discuss It: Support Partner Discussion	individualism

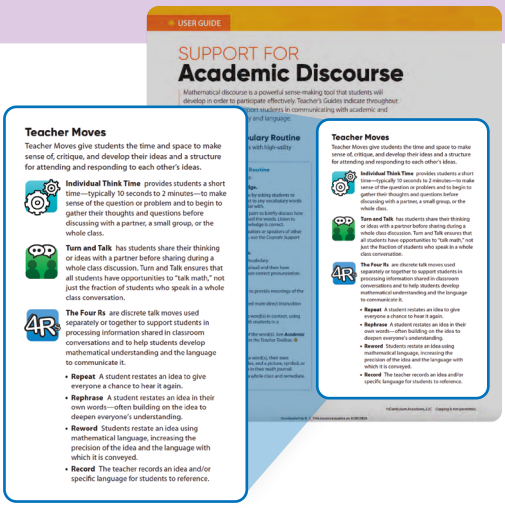
Teacher Moves

PURPOSE:
Give students time and space to make sense of, critique, and develop ideas, as well as structures 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

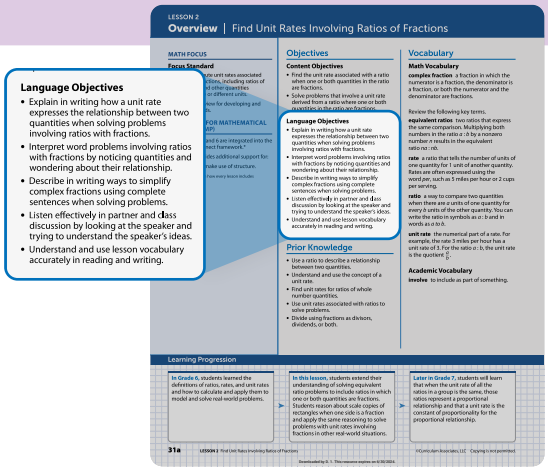


Language Objectives

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

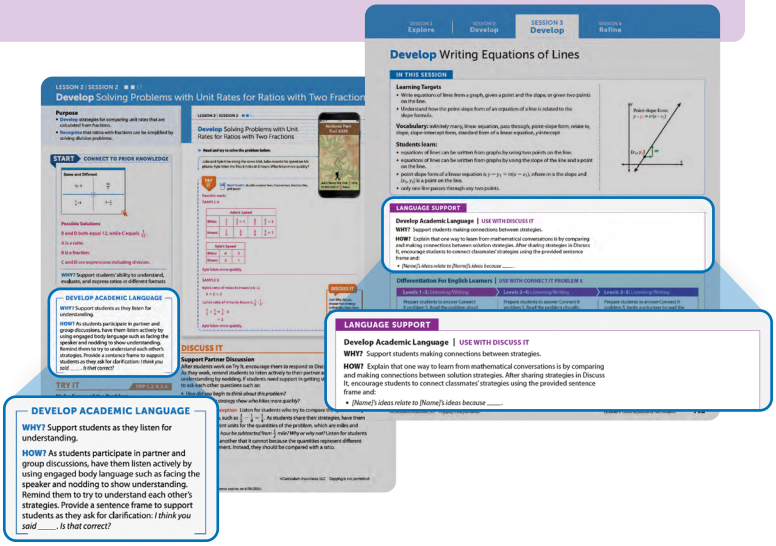


Develop Academic Language

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 for Grades 6–8 and Session Overview for Algebra 1: 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

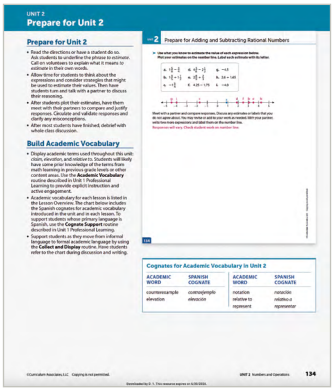
Use these resources with all students.

Beginning of Unit Vocabulary: Prepare for Unit (Grades 6–8), Build Your Vocabulary (Algebra 1)

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

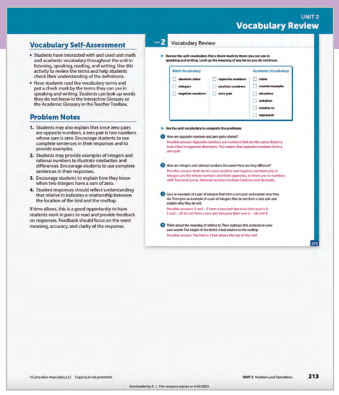


Vocabulary Review

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

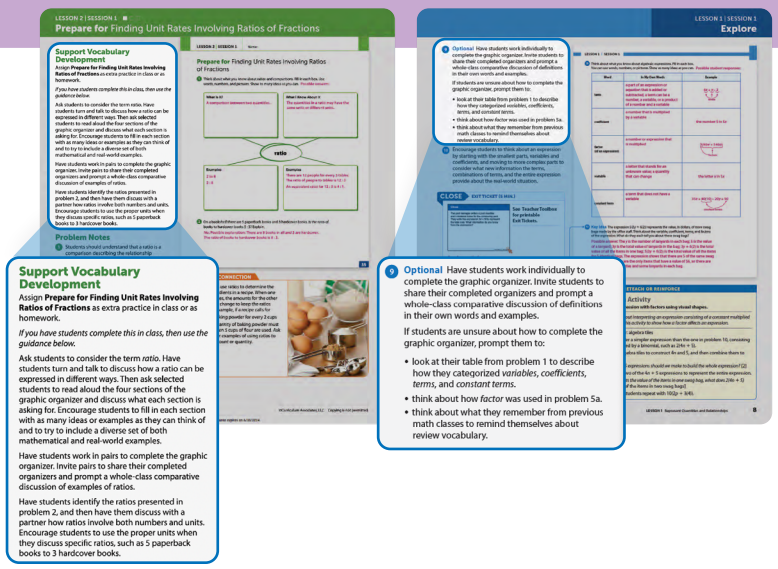


Vocabulary Development

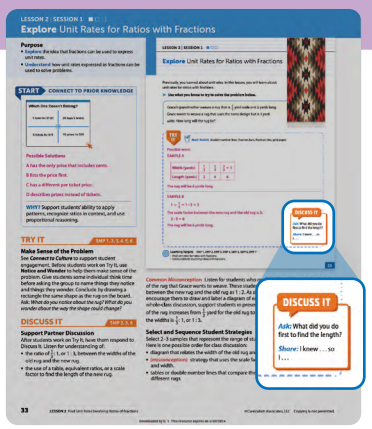
PURPOSE:
Use graphic organizers to focus on key math terms in the lesson to support language development

WHEN:
During the Explore sessions

WHERE:
Explore Session Practice Pages for Grades 6–8 and at the end of the Connect It problems for Algebra 1: Teacher's Guide, Student Worktext



Sentence Starters and Frames

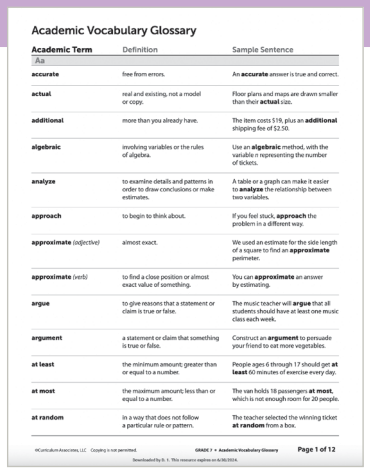


PURPOSE:
Use the questions and sentence starters to scaffold students' production of complete sentences using mathematics language with a partner

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

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

Academic Vocabulary Glossary



Academic Vocabulary Glossary

Academic Term	Definition	Sample Sentence
Aa		
accurate	free from errors.	An **accurate** answer is true and correct.
actual	real and existing, not a model or copy.	Floor plans and maps are drawn smaller than their **actual** size.
additional	more than you already have.	The item costs $19, plus an **additional** shipping fee of $2.50.
algebraic	involving variables or the rules of algebra.	Use an **algebraic** method, with the variable *n* representing the number of tickets.
analyze	to examine details and patterns in order to draw conclusions or make estimates.	A table or a graph can make it easier to **analyze** the relationship between two variables.
approach	to begin to think about.	If you feel stuck, **approach** the problem in a different way.
approximate *(adjective)*	almost exact.	We used an estimate for the side length of a square to find an **approximate** perimeter.
approximate *(verb)*	to find a close position or almost exact value of something.	You can **approximate** an answer by estimating.
argue	to give reasons that a statement or claim is true or false.	The music teacher will **argue** that all students should have at least one music class each week.
argument	a statement or claim that something is true or false.	Construct an **argument** to persuade your friend to eat more vegetables.
at least	the minimum amount; greater than or equal to a number.	People ages 6 through 17 should get **at least** 60 minutes of exercise every day.
at most	the maximum amount; less than or equal to a number.	The van holds 18 passengers **at most**, which is not enough room for 20 people.
at random	in a way that does not follow a particular rule or pattern.	The teacher selected the winning ticket **at random** from a box.

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

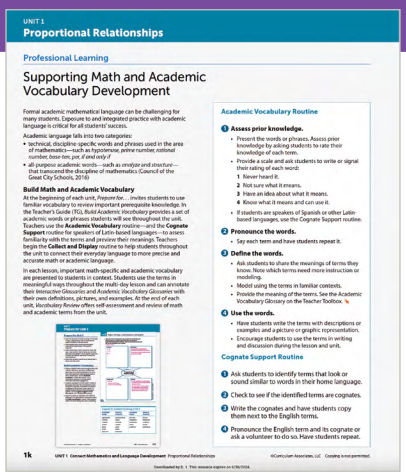
WHEN:
Anytime as needed

WHERE:
Teacher Toolbox: Program Implementation tab

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

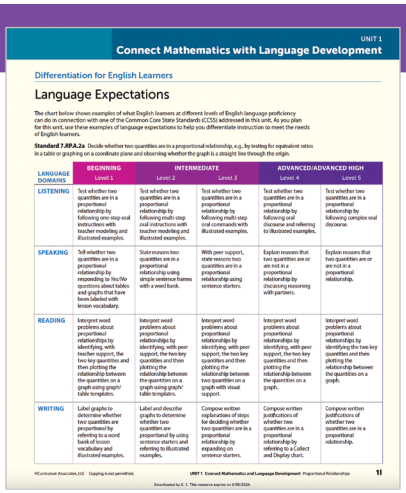
WHERE:
Beginning of Unit: Teacher's Guide

Connect Mathematics with Language Development

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


UNIT 1
Connect Mathematics with Language Development

Differentiation for English Learners

Language Expectations

The chart below shows examples of what English learners at different levels of English language proficiency can do in connection with one of the Common Core State Standards (CCSS) addressed in this unit. As you plan for this unit, use these examples of language expectations to help you differentiate instruction to meet the needs of English learners.

Standard 7.RP.A.2a *Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.*

LANGUAGE DOMAINS	BEGINNING Level 1	INTERMEDIATE Level 2	INTERMEDIATE Level 3	ADVANCED/ADVANCED HIGH Level 4	ADVANCED/ADVANCED HIGH Level 5
LISTENING	Test whether two quantities are in a proportional relationship by following one-step oral instructions with teacher modeling and illustrated examples.	Test whether two quantities are in a proportional relationship by following multi-step oral instructions with teacher modeling and illustrated examples.	Test whether two quantities are in a proportional relationship by following multi-step oral commands with illustrated examples.	Test whether two quantities are in a proportional relationship by following oral discourse and referring to illustrated examples.	Test whether two quantities are in a proportional relationship by following complex oral discourse.
SPEAKING	Tell whether two quantities are in a proportional relationship by responding to Yes/No questions about tables and graphs that have been labeled with lesson vocabulary.	State reasons two quantities are in a proportional relationship using simple sentence frames with a word bank.	With peer support, state reasons two quantities are in a proportional relationship using sentence starters.	Explain reasons that two quantities are or are not in a proportional relationship by discussing reasoning with partners.	Explain reasons that two quantities are or are not in a proportional relationship.
READING	Interpret word problems about proportional relationships by identifying, with teacher support, the two key quantities and then plotting the relationship between the quantities on a graph using graph/table templates.	Interpret word problems about proportional relationships by identifying, with peer support, the two key quantities and then plotting the relationship between the quantities on a graph using graph/table templates.	Interpret word problems about proportional relationships by identifying, with peer support, the two key quantities and then plotting the relationship between two quantities on a graph with visual support.	Interpret word problems about proportional relationships by identifying, with peer support, the two key quantities and then plotting the relationship between the quantities on a graph.	Interpret word problems about proportional relationships by identifying the two key quantities and then plotting the relationship between the quantities on a graph.
WRITING	Label graphs to determine whether two quantities are proportional by referring to a word bank of lesson vocabulary and illustrated examples.	Label and describe graphs to determine whether two quantities are proportional by using sentence starters and referring to illustrated examples.	Compose written explanations of steps for deciding whether two quantities are in a proportional relationship by expanding on sentence starters.	Compose written justifications of whether two quantities are in a proportional relationship by referring to a Collect and Display chart.	Compose written justifications of whether two quantities are in a proportional relationship.

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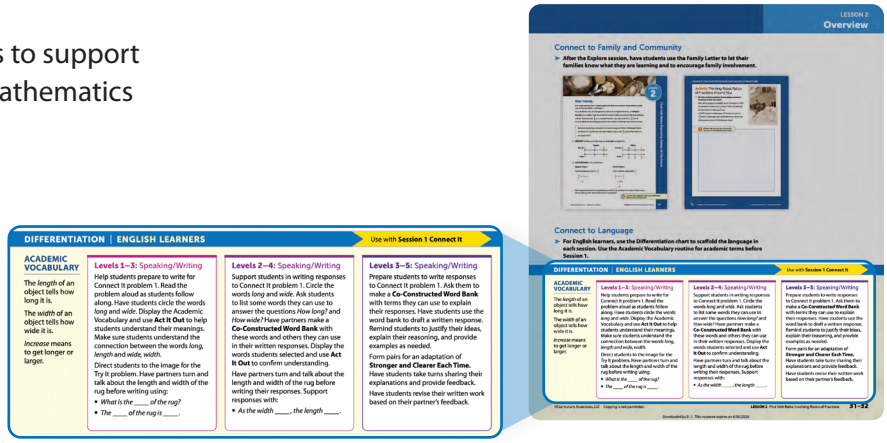
Downloaded by S. 1. This resource expires on 6/30/2024.

Connect to Language Development (Grades 6–8)/Language Support (Algebra 1)

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

WHEN:
During the session

WHERE:
End of Session for Grades 6–8 (in preparation for the next session) or Session Overview for Algebra 1: Teacher's Guide


DIFFERENTIATION | ENGLISH LEARNERS — Use with Session 1 Connect It

ACADEMIC VOCABULARY

The *length* of an object tells how long it is.

The *width* of an object tells how wide it is.

Increase means to get longer or larger.

Levels 1–3: Speaking/Writing
Help students prepare to write for Connect It problem 1. Read the problem aloud as students follow along. Have students circle the words *long* and *wide*. Display the Academic Vocabulary and use **Act It Out** to help students understand their meanings. Make sure students understand the connection between the words *long, length* and *wide, width*.
Direct students to the image for the Try It problem. Have partners turn and talk about the length and width of the rug before writing using:
- *What is the ____ of the rug?*
- *The ____ of the rug is ____.*

Levels 2–4: Speaking/Writing
Support students in writing responses to Connect It problem 1. Circle the words *long* and *wide*. Ask students to list some words they can use to answer the questions *How long?* and *How wide?* Have partners make a **Co-Constructed Word Bank** with these words and others they can use in their written responses. Display the words students selected and use **Act It Out** to confirm understanding.
Have partners turn and talk about the length and width of the rug before writing their responses. Support responses with:
- *As the width ____, the length ____.*

Levels 3–5: Speaking/Writing
Prepare students to write responses to Connect It problem 1. Ask them to make a **Co-Constructed Word Bank** with terms they can use to explain their responses. Have students use the word bank to draft a written response. Remind students to justify their ideas, explain their reasoning, and provide examples as needed.
Form pairs for an adaptation of **Stronger and Clearer Each Time.** Have students take turns sharing their explanations and provide feedback.
Have students revise their written work based on their partner's feedback.

LESSON 2 Overview

Connect to Family and Community

➤ **After the Explore session, have students use the Family Letter to let their families know what they are learning and to encourage family involvement.**

Connect to Language

➤ **For English learners, use the Differentiation chart to scaffold the language in each session. Use the Academic Vocabulary routine for academic terms before Session 1.**

DIFFERENTIATION | ENGLISH LEARNERS — Use with Session 1 Connect It

ACADEMIC VOCABULARY

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Levels 3–5: Speaking/Writing
Prepare students to write responses to Connect It problem 1. Ask them to make a **Co-Constructed Word Bank** with terms they can use to explain their responses. Have students use the word bank to draft a written response. Remind students to justify their ideas, explain their reasoning, and provide examples as needed.
Form pairs for an adaptation of **Stronger and Clearer Each Time.** Have students take turns sharing their explanations and provide feedback.
Have students revise their written work based on their partner's feedback.

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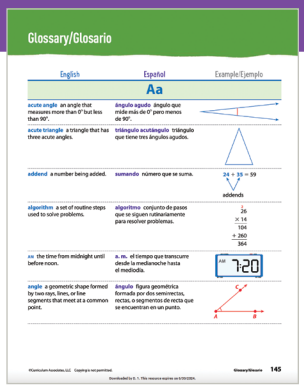
Multilingual Glossary of Math Terms (Available in 9 Languages)

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


Glossary/Glosario

English	Español	Example/Ejemplo
Aa		
acute angle an angle that measures more than 0° but less than 90°.	**ángulo agudo** ángulo que mide más de 0° pero menos de 90°.	
acute triangle a triangle that has three acute angles.	**triángulo acutángulo** triángulo que tiene tres ángulos agudos.	
addend a number being added.	**sumando** número que se suma.	24 + 35 = 59 addends
algorithm a set of routine steps used to solve problems.	**algoritmo** conjunto de pasos que se siguen rutinariamente para resolver problemas.	26 × 14 104 + 260 364
AM the time from midnight until before noon.	**a. m.** el tiempo que transcurre desde la medianoche hasta el mediodía.	AM 7:20
angle a geometric shape formed by two rays, lines, or line segments that meet at a common point.	**ángulo** figura geométrica formada por dos semirrectas, rectas, o segmentos de recta que se encuentran en un punto.	C A B

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REFERENCE SHEET

Practice Opportunities

Overview

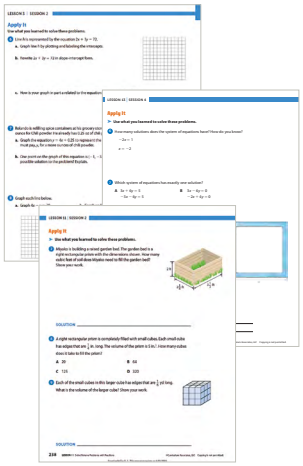
Engage and reinforce students' mathematical understanding through the practice available in *i-Ready Classroom Mathematics*. Learn about the variety of hands-on, digital, and print practice opportunities and where to find them below.

Lesson- and Session-Level Practice Opportunities

Students apply vocabulary, strategies, and procedures flexibly and in context.

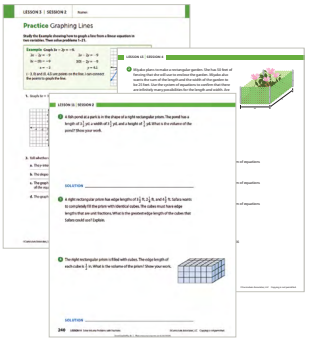
Student Worktext

Apply It Practice



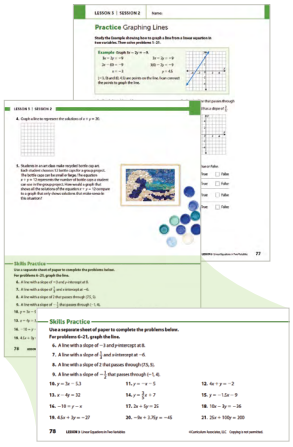
Practice Pages in:

- Explore and Develop Sessions
  (Grades 6–8 and Algebra 1)
- Refine Sessions
  (Algebra 1)



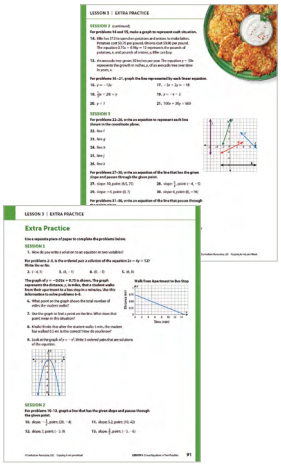
Develop Session Skills Practice

(Algebra 1)



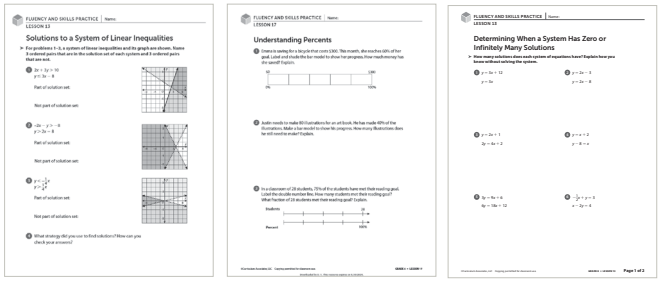
Extra Practice

(Algebra 1)

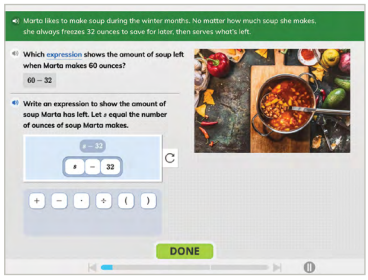


Teacher Toolbox

Fluency and Skills Practice



Assignable Digital Interactive Practice*



*Available for Algebra 1 beginning in the 2025–2026 school year
All practice opportunities are available in Spanish.
(Algebra 1 materials will be available in Spanish for Back to School 2025.)

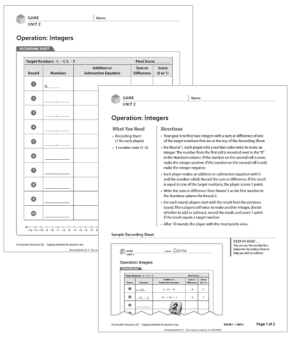
Unit-Level Practice Opportunities

Students review current or prerequisite concepts and maintain fluency.

Teacher Toolbox

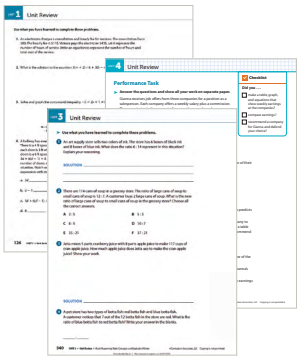
Unit Games

(Grades 6–8)

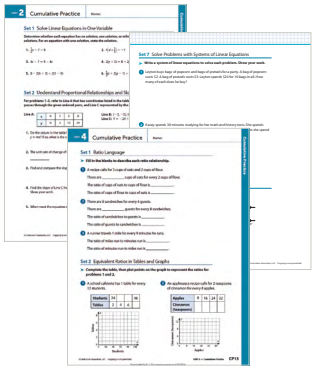


Student Worktext

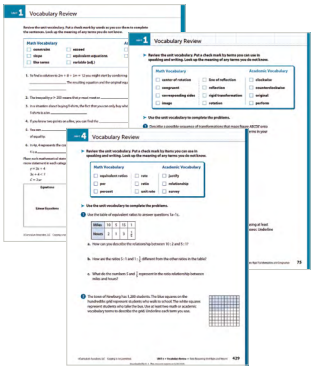
Unit Review



Cumulative Practice



Vocabulary Review

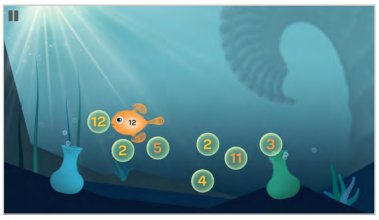


Ongoing Practice Opportunities

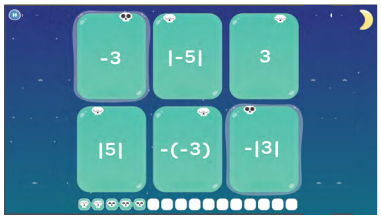
Student Digital Experience

Learning Games

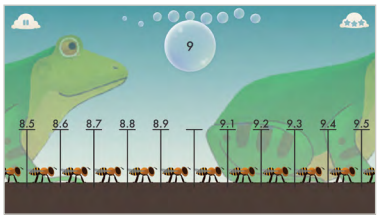
Hungry Fish



Match

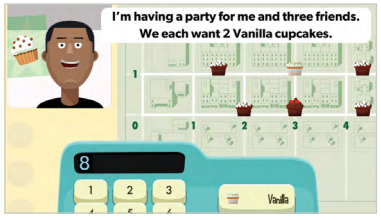


Zoom

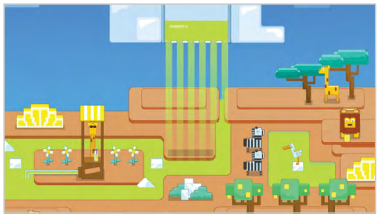


Bounce

Cupcake



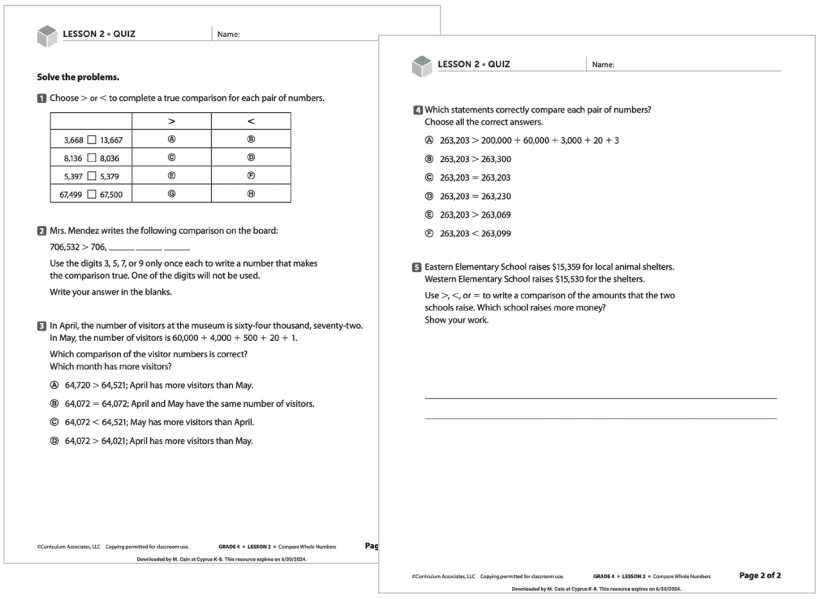
Cloud Machine



All practice opportunities are available in Spanish.
(Algebra 1 materials will be available in Spanish for Back to School 2025.)

REFERENCE SHEET

Assessment Opportunities: Lesson Quizzes and Unit Assessments


LESSON 2 • QUIZ Name:

Solve the problems.

1 Choose > or < to complete a true comparison for each pair of numbers.

	>	<
3,668 ☐ 13,667	Ⓐ	Ⓑ
8,136 ☐ 8,036	Ⓒ	Ⓓ
5,397 ☐ 5,379	Ⓔ	Ⓕ
67,499 ☐ 67,500	Ⓖ	Ⓗ

2 Mrs. Mendez writes the following comparison on the board:
706,532 > 706, _____ _____ _____
Use the digits 3, 5, 7, or 9 only once each to write a number that makes the comparison true. One of the digits will not be used.
Write your answer in the blanks.

3 In April, the number of visitors at the museum is sixty-four thousand, seventy-two. In May, the number of visitors is 60,000 + 4,000 + 500 + 20 + 1.
Which comparison of the visitor numbers is correct? Which month has more visitors?
Ⓐ 64,720 > 64,521; April has more visitors than May.
Ⓑ 64,072 = 64,072; April and May have the same number of visitors.
Ⓒ 64,072 < 64,521; May has more visitors than April.
Ⓓ 64,072 > 64,021; April has more visitors than May.

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LESSON 2 • QUIZ Name:

4 Which statements correctly compare each pair of numbers? Choose all the correct answers.
Ⓐ 263,203 > 200,000 + 60,000 + 3,000 + 20 + 3
Ⓑ 263,203 > 263,300
Ⓒ 263,203 = 263,203
Ⓓ 263,203 = 263,230
Ⓔ 263,203 > 263,069
Ⓕ 263,203 < 263,099

5 Eastern Elementary School raises $15,359 for local animal shelters. Western Elementary School raises $15,530 for the shelters.
Use >, <, or = to write a comparison of the amounts that the two schools raise. Which school raises more money? Show your work.

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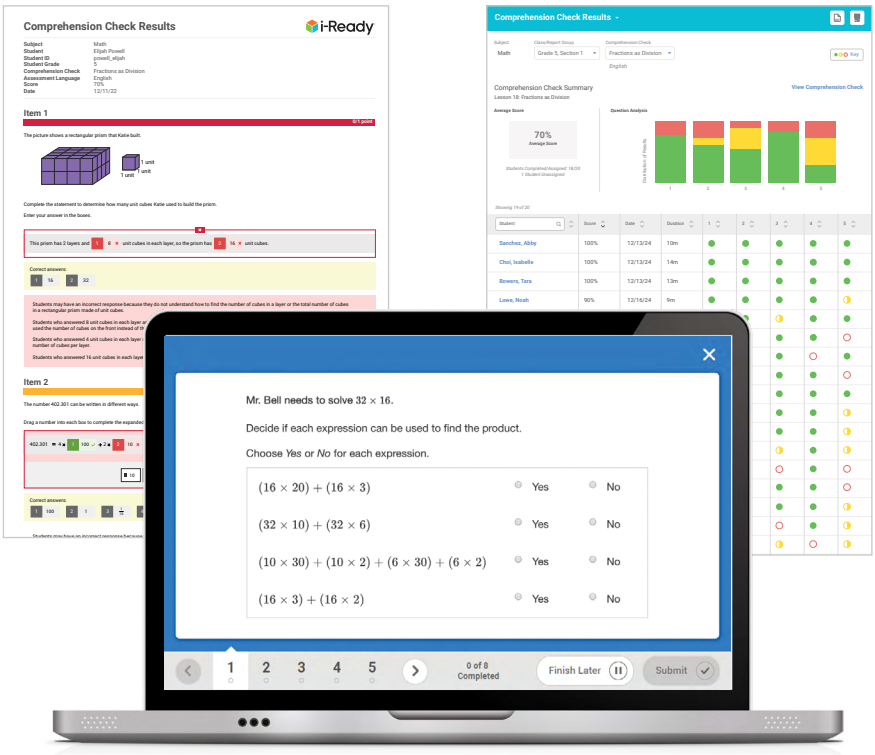
Printable Assessments

- Quizzes appear in the Assess column of the Teacher Toolbox. Unit Assessments are in the End of Unit row in the Assess column.
- Unit Assessments are available in Form A and Form B versions.
- Download as a PDF or editable Microsoft Word® document.
- Easily assign resources to Google Classroom™ or upload PDFs to a Learning Management System (LMS).

Digital Assessments*

- Assign premade versions or customize to add or remove questions. Learn how to a assign assessments.
- Each is automatically graded and provides individual student and class reports.
- Class reports let teachers know at a glance which questions the class struggled with the most, making it easy to know what to review.
- Individual student reports include an error analysis of each question providing possible insights into why students got a question incorrect.



*Algebra 1 will be available for Back to School 2025.

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