



i-Ready® Classroom Mathematics

Integrating Social-Emotional Learning (SEL) into Mathematics Curriculum



Educators know that math education isn't just about math.

As students learn new mathematical concepts, they also learn about:

- **Themselves:** how to reflect on their own understanding, persist through challenges, and respond to critical feedback
- **Other math students:** how to interpret their actions and emotions, communicate clearly and kindly, and support each other as they learn
- **The communities and relationships that link them together:** how their actions impact the group, how systems and routines create progress, and how different perspectives create a whole greater than its parts

Because SEL is a complex, nuanced topic, it's important to establish a shared frame of reference when you talk about it. We chose to use the five core SEL competencies as defined by the Collaborative for Academic, Social, Emotional Learning (CASEL)* because of its asset-based language and focus on equity.

The Collaborative for Academic, Social, and Emotional Learning (CASEL) describes five areas of SEL:



Self-Awareness



Self-Management



Responsible Decision-Making



Social Awareness



Relationship Skills

i-Ready Classroom Mathematics, facilitated in a kind, compassionate way, addresses all five core competencies.

i-Ready Classroom Mathematics Asset/Feature Name**

Try–Discuss–Connect routine

Self Check

Interactive Learning Games

Assessments (Formal and Informal)

(e.g., Exit tickets, End-of-Lesson Checklists, Math Journal questions, Unit Review, Diagnostic, Lesson Quizzes, and Mid-Unit Assessments)

English Learner Supports

My Progress

End-of-Unit Self-Reflections

Data Chats

Comprehension Checks

Reflect prompts

Lesson 0

Select and Sequence Student Solutions

Deepen Understanding

Discourse Cards/Discourse Cube

Pair/Share prompts

Ask/Listen For guidance

Connect to Community and Cultural Responsiveness

Small Group Differentiation
(e.g., Math Center Activities, Unit Games)

Family Letters

Real-World Connection

Develop Language

Language Objectives

Math in Action Lessons

Digital Math Tools

Reflect Questions

| Self-Awareness | Self-Management | Responsible Decision-Making | Social Awareness | Relationship Skills |
|----------------|-----------------|-----------------------------|------------------|---------------------|
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**To see where these assets/features appear in the program, see [pp. 10–11](#).



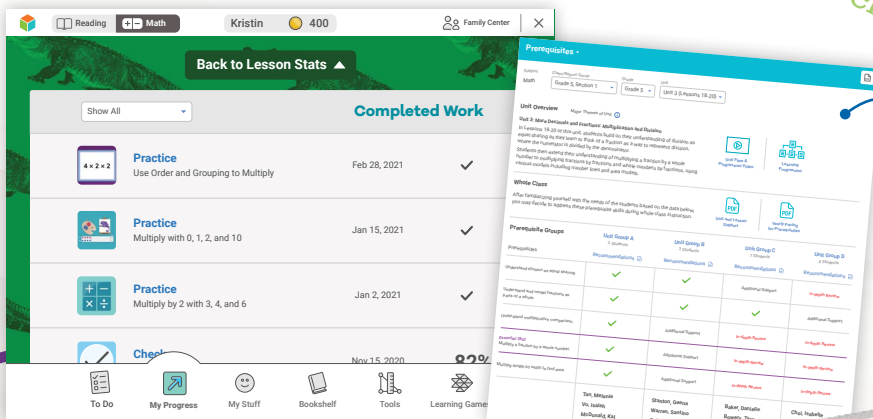
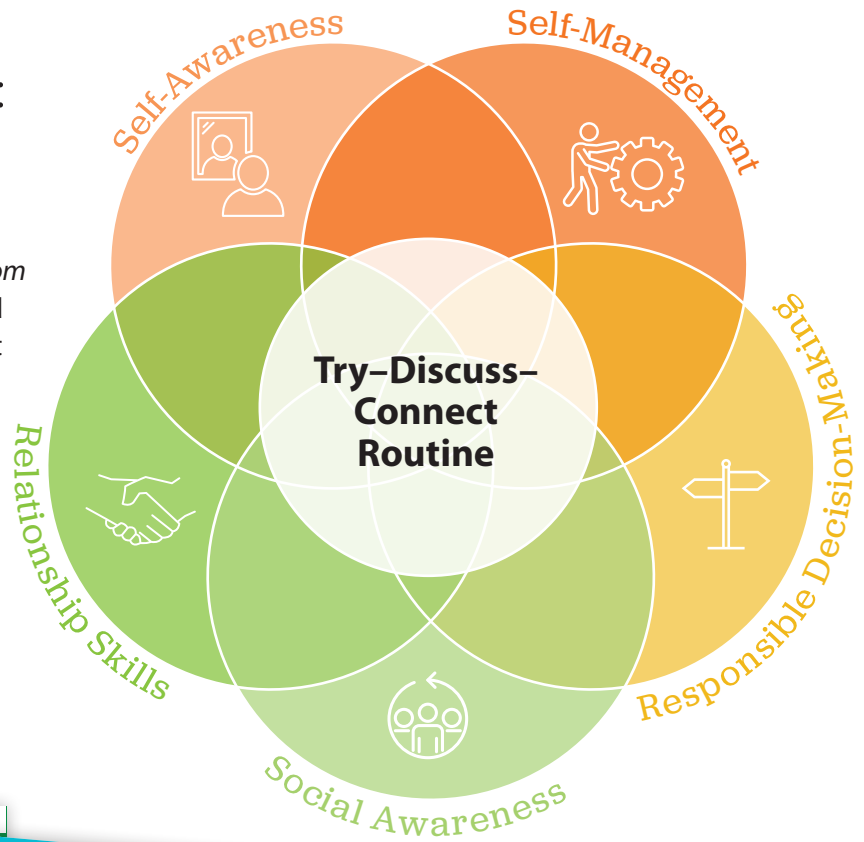
All Five SEL Competencies

SEL is an inextricable part of math education. *i-Ready Classroom Mathematics'* routines, supports, and philosophy embrace this union and seek to cultivate a path for academic and SEL growth at the same time.

Instructional Routine:

The **Try–Discuss–Connect routine** builds the social-emotional aspects of students' education while creating a community of interconnected learners. In *i-Ready Classroom Mathematics*, every student has a voice and an opportunity to engage with the content in a way that is meaningful to them.

Watch classroom videos of the Try–Discuss–Connect instructional routine: CurriculumAssociates.com/TDC.

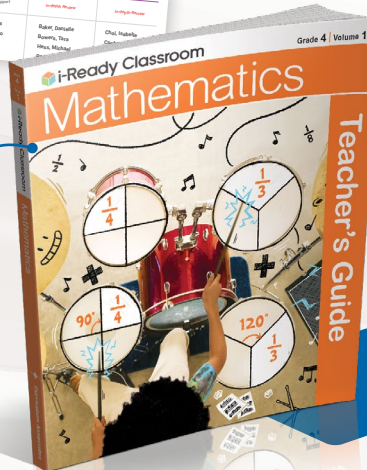


In-Depth Data:

Students, teachers, and families have the data they need to reflect meaningfully on students' progress, set appropriate goals, and celebrate students' achievements.

Embedded Teacher Support:

The Teacher's Guide includes support that promotes broader SEL integration and equips every educator to create a more inclusive and productive classroom.





Responsible Decision-Making

Responsible decision-making is students' "abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations" (CASEL, 2020).* This includes demonstrating curiosity and open-mindedness, learning to make a reasoned judgment based on the facts, and evaluating and anticipating the consequences of one's actions. *i-Ready Classroom Mathematics* provides opportunities for students to learn about and practice responsible decision-making and to build the context needed to apply their practice broadly.



Students practice responsible decision-making in every part of the Try-Discuss-Connect routine.

- **Try It:** Students independently choose the best strategy to solve a problem.
- **Discuss It:** Students demonstrate curiosity and open-mindedness as they choose what to say as they share their thinking.
- **Connect It:** Students evaluate methods and can consider the merits of different solution strategies.

Math in Action lessons for Grades 2–8 offer a rich, multifaceted experience that lets students practice evaluating a plan after taking in relevant information. Frequent reflection questions scaffold students' thinking and encourage them to make rational, well-reasoned arguments.

UNIT 1 MATH IN ACTION
SESSION 1

Purpose Students plan and solve the **Robot Motors** problem another way. Students demonstrate that the problem has more than one approach and more than one solution.

Try Another Approach
Support Whole Class Discussion
Review Ploy's solution to the **Robot Motors** problem on the previous page.

Ask How can you summarize the steps in Ploy's solution?
Listen for Start with 16 and continue to subtract 3. Find how many shelves with 3 motors there are and how many motors are on the last shelf.
Ask What are some different steps you could use to solve the problem?
Listen for Begin subtracting using the greatest number of motors that can be put on a shelf or add different numbers until you get to 16.

PLAN IT
Support Whole Class Discussion
Read the question aloud. Prompt students to recognize that there is more than one way to solve the problem.

Close: Exit Ticket
3 REFLECT
Look for understanding that there are different ways to solve the problem and that some ways are easier than others because of the numbers used.
Common Misconception If students reason that changing 6×7 to 7×7 increases the product by 1, then discuss the difference between adding 1 to a factor and adding 1 to the product. Explain that when the number of equal groups increases by 1, the product, or total, increases by the number of items in the equal group.

Real-World Connection
Have students describe the similarities between a monthly calendar grid and an array with 7 columns. Ask if they can think of examples of other objects that resemble arrays, especially arrays with 7, 8, or 9 columns. Possibilities include a checkerboard (8 rows and 8 columns) and rows of chairs. Discuss situations in which you might use multiplication to count the items in these "arrays," such as using a calendar to find the number of days in three weeks.

Try Another Approach
There are many ways to solve problems. Think about how you might solve the **Robot Motors** problem in a different way.

Robot Motors
Beau wants to build a shelf to store his 16 robot motors. Look at his plan.

Shelf Plan

- Use up to 6 shelves.
- Put at least 3 and no more than 6 robot motors on each shelf.

How many shelves should Beau make? How many motors should he put on each shelf?

PLAN IT
Answer this question to help you start thinking about a plan.
What numbers can you use for the number of shelves? Explain how you know.

Math in Action interface showing various math tools:

- Counters and Connecting Cubes Tool
- Base Ten Blocks Tool
- Number Line Tool
- Multiplication Models Tool
- Primary Area T
- Fraction Models Tool
- Geometry Tool
- Scientific Calculator
- Drawing Calculator

Navigation: To Do, My Progress, My Stuff, Bookshelf, Tools, Learning Games

Digital Math Tools are available for students to use at any time, giving them the opportunity to choose which tool best fits the job at hand.

LESSON 4
Represent Proportional Relationships

Dear Family,
This week your student is learning about graphs and equations that can represent proportional relationships.
One way to represent a proportional relationship is with a graph. The graph will be a straight line that goes through the **origin**, or the point (0, 0). Another way is with an equation that tells you how many x you have for every one y . The equation for the proportional relationship at the right is $y = 6x$. Your student will solve problems like the one below.

The table compares the number of people who ride a rollercoaster to the number of rollercoaster cars they fill. Is this a proportional relationship?

| Cars Filled (x) | 3 | 5 | 6 | 8 |
|---------------------|----|----|----|----|
| People (y) | 18 | 30 | 36 | 48 |

ONE WAY to recognize a proportional relationship is with a graph. Plot the pairs of values as ordered pairs and connect the points. The graph is a straight line that passes through (0, 0), so the relationship is proportional.

ANOTHER WAY to recognize a proportional relationship is to check if the ratios are equivalent. The ratios 3 : 18, 5 : 30, 6 : 36, and 8 : 48 are all equivalent. In each case, you can multiply the first quantity by 6 to get the second quantity. Both ways show that the relationship is proportional.

Use the next page to start a conversation about proportional relationships.

Real-World Connection prompts offer questions and practical, relatable examples that show students why their new knowledge is meaningful outside the classroom.

Family Letters clearly communicate what students will be learning and offer activities for families and students to try together.

*Collaborative for Academic, Social, and Emotional Learning. (2020). CASEL's SEL framework: What are the core competence areas and where are they promoted? CASEL. <https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf>



Self-Awareness

Self-awareness includes students' abilities to recognize their strengths and limitations, understand their own thoughts and emotions, have a growth mindset, and experience self-efficacy. *i-Ready Classroom Mathematics* promotes self-awareness by providing frequent opportunities for students to reflect on their knowledge, giving them time to think independently, and equipping teachers with rich data from informal assessments to share with them.



Self Check lets students check off skills they already know before starting a unit, and then reflect on their progress at the end of a unit.

Read and try to solve the problem below.

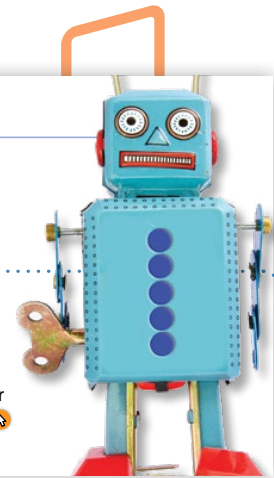
A company makes a toy robot that has 2 antennas and 5 buttons. How many antennas and buttons are needed for 6 robots?

TRY IT



Math Toolkit

- counters
- cups
- 1-centimeter grid paper
- multiplication models



During the **Try It**, students work independently, letting them better understand their own abilities and prepare to take academic risks.

SELF CHECK

Before starting this unit, check off the skills you know below. As you complete each lesson, see how many more skills you can check off!

| I can ... | Before | After |
|--|--------------------------|--------------------------|
| Understand area and find area by tiling and by multiplying. | <input type="checkbox"/> | <input type="checkbox"/> |
| Find the area of a combined rectangle or a non-rectangular shape by adding the areas of the rectangles that make up the shape. | <input type="checkbox"/> | <input type="checkbox"/> |
| Use multiplication or division to solve one-step word problems. | <input type="checkbox"/> | <input type="checkbox"/> |
| Use addition, subtraction, multiplication, or division to solve two-step word problems. | <input type="checkbox"/> | <input type="checkbox"/> |

8 REFLECT

Look back at your **Try It**, strategies by classmates, and **Picture It** and **Model It**. Which models or strategies do you like best for multiplying to find the area of a rectangle? Explain.

.....

.....

Connect It questions ask students to reflect and apply what they have learned to novel problems and situations.

9 MATH JOURNAL

Missy wants to hang 12 pictures on her bedroom wall. She hangs 3 pictures in each row. How many rows of pictures are there? Explain two ways to find the answer.

Frequent, informal **checks for understanding** allow students to gather data on their abilities and set new goals for growth.



Self-Management

CASEL defines self-management as students' abilities to "manage [their] emotions, thoughts, and behaviors effectively in different situations to achieve goals and aspirations," including setting personal and collective goals, taking initiative, and using planning and organizational skills (CASEL, 2020).* *i-Ready Classroom Mathematics'* daily routine, online activities, and robust, accessible data help students build this crucial skill.

Using the **Try-Discuss-Connect routine** creates opportunities for students to learn and demonstrate self-management.

- **Try It:** As students persevere through a novel problem independently, they practice managing their emotions, such as excitement to share their thinking or frustration with a tough question.
- **Discuss It:** Students learn how to manage their emotions and actions in response to potentially challenging situations, such as someone disagreeing with their answer or feeling embarrassed about a mistake.



| i-Ready Learning Games | | | | |
|--|---|--|---|-----------------------|
| PLAY GAMES | PLAYTIME | SKILLS PROGRESS | FACTORS OF LEARNING | |
| Grade 5, Section 1 | | | | |
| Moore, R. | | | | |
| Growth Mindset Selects challenging levels & persists even after losing | Confidence Selects even more challenging levels after winning | Productive Strategy Plays a productive path through the game | Self-Regulation Focuses during gameplay, rarely pausing or quitting | Sort by: Student Name |
| Tan, Melanie | | | | |
| Sanchez, Abby | | | | |

Interactive Learning Games give students immediate feedback they can use to test strategies as they learn to manage their emotions. After completing a level, students can choose whether the next round is harder or not, giving them agency over their learning.

Observe

I am reflecting on my data for:

- Mathematics
- Reading

1A Color in and/or record your scale scores on the Diagnostic.

1B After the first Diagnostic: Draw in and/or record your Typical and Stretch Growth measures.

1C After the second and last Diagnostics: Record your Progress to Annual Typical Growth and Annual Stretch Growth.

Scale Scores: _____

Typical Growth measure: _____

Stretch Growth measure: _____

1st Diagnostic Date: _____

Reflect

2 One achievement I am proud of is...

3 I have made progress in by...

Set Goals

4 Thinking ahead, my goals are...

Take Action

5 I will achieve my goals by...

Teachers can use students' data and implementation resources to plan **data chats** with students, school leaders, and families. These help students examine their growth and see their teachers and families as allies.

Reading Math Kristin 400 Family Center

Back to Lesson Stats

| Item | Date | Score |
|---|--------------|-------|
| Check Find the Area of a Parallelogram | Feb 28, 2021 | 100% |
| Diagnostic | Jan 15, 2021 | ✓ |
| Lesson Algebra and Algebraic Thinking Algebraic Expressions with Exponents | Jan 2, 2021 | ✓ 76% |
| Check | Nov 15, 2020 | 82% |

To Do My Progress My Stuff Bookshelf Tools Learning Games

My Progress shows students their completed work, including their scores on Comprehension Checks. This keeps students on track and helps them understand their progress.

*Collaborative for Academic, Social, and Emotional Learning. (2020). CASEL's SEL framework: What are the core competence areas and where are they promoted? CASEL. <https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf>



Social Awareness

Social awareness encompasses students' abilities to understand the perspectives of others and empathize with them. This includes recognizing others' strengths, understanding how one's own behavior impacts others, and demonstrating empathy and compassion. *i-Ready Classroom Mathematics* provides daily opportunities for students to learn about and practice social awareness.




LESSON 4 **SESSION 3**

Refine Ideas About the Meaning of Multiplication

APPLY IT
Complete these problems on your own.


1 EXPLAIN
Travis drew the picture below to show 4×6 .



What did he do wrong?

2 CREATE
Write a story problem that could be solved using the multiplication equation $9 \times 4 = 36$.

3 ANALYZE
Amelia draws the array at the right to show $3 \times 2 = 6$.
How will Amelia's array change if she shows $4 \times 2 = 8$?




PAIR/SHARE
Discuss your solutions for these three problems with a partner.

Reflect and Connect

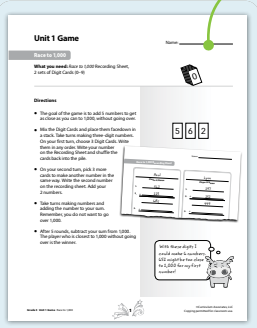
What is **different** about your strategy and your partner's?

Does your partner's strategy make sense?



Unit Game **Teacher Tools**

Race to 1,000
SMP 2, 6, 7, 8
Materials For each pair: Recording Sheet, 2 sets of 0-9 Digit Cards
Why Reinforce adding and subtracting within 1,000.
How Students play in pairs. Partners take turns drawing cards to each make 5 three-digit numbers and add their numbers to get closest to 1,000 without going over.
• After finding the sum of all 5 three-digit numbers, students subtract their sum from 1,000 to determine who is closest to 1,000 without going over. If a player goes over they lose.



Discourse Cards and the **Discourse Cube** provide questions and sentence starters that scaffold conversations to help students be a part of an honest and healthy academic discussion that shows respect for classmates' perspectives.

Unit Games (K-8) and Grade Level Games (K-2) use play to reinforce academic and social-emotional learning.

In the **Discuss It**, students share their thoughts and strategies with their peers. This communication builds students' capacity for empathy and fosters the trust and security needed for them to feel safe taking academic risks. Students learn how to infer their partners' emotions, what impact their reaction to someone's work has on them, and how to better understand their classmates' thinking.

Connect to **Community and Cultural Responsiveness**

Use these activities to connect with and leverage the diverse backgrounds and experiences of all students.

Session 1 Use with **Additional Practice**, problem 3.
• Explain that flowers are very important to different cultures around the world. Flowers are used to show love and happiness and are used in celebrations (for example, Valentine's Day, anniversaries, and Day of the Dead). Flowers are also popular subjects in art in cultures throughout the world. Ask students to share experiences they have had with flowers on holidays or special occasions to help make cultural connections.

Session 2 Use with **Apply It**, problem 7.
• Ask students to name some of their favorite books. Display a book and discuss the process of noting the number of pages in the book, reading a portion of the book, and determining how many more

Session 3 Use throughout the session.
• Display different edible seeds such as sunflower, pumpkin, and sesame. Explain that many cultures use different seeds for food. Further explain that beans and nuts are also seeds. Share a seed, bean, or nut that is popular in your family or culture. Call on volunteers to describe seeds or nuts that they enjoy eating.

Session 4 Use with **Apply It**, problem 7.
• Explain that by the time students graduate from high school, they will have been taking classes for 12 to 14 years. Have each student figure out how many years of education he or she will have upon graduation from high school or college.

Connect to Community and Cultural Responsiveness sections offer context and suggestions on how to honor students' diverse perspectives and experiences, bring them into the lesson, and give problems broader context. This helps students develop an appreciation for different worldviews and customs.



Relationship Skills

Relationship skills are students' abilities to establish and maintain healthy and supportive relationships. This includes communicating effectively, practicing teamwork, and seeking or offering support when it's needed. In *i-Ready Classroom Mathematics*, relationship skills are put to the forefront of each session.

The Discuss It questions help students practice crucial relationship skills. They learn what questions to ask to better understand their classmates' thinking and how to support each other through challenging work. These empathic bridges build toward an understanding of how to maintain positive, healthy connections with peers and teachers.



Develop Language

Why Clarify the meaning of the homophones *some* and *sum*.

How Ask students to circle the word *sum*. Display the words *some* and *sum*. Have students chorally pronounce the terms although the words *some* and *sum* have different meanings. *Some* means an amount. Point to *sum*. Explain that the *sum* of an addition problem equation such as $3 + 4 = 7$ is 7. Display the equation. Have students

Clear, effective communication is a crucial relationship skill. The **Develop Language** prompts and **Language Objectives** target specific, relevant words to help students communicate effectively, demonstrate their understanding, and participate in mathematical discourse.

LESSON 2

Develop Connecting Place-Value Strategies to an Algorithm

Read and try to solve the problem below.

What is the sum? 225
Use place value to help you add. $+ 229$

Center Activity 2.43 *

Find the Value of Coins and Bills

What You Need

- number cube

Check Understanding
What is the value of these coins?



Center Activity 2.43 **

Find the Value of Coins and Bills

What You Need

- number cube
- 9 game markers in one color

Check Understanding
What is the value of these coins?



Center Activity 2.43 ***

Find the Value of Coins and Bills

What You Need

- number cube
- 9 game markers in one color
- 9 game markers in a different color
- Game Board

Check Understanding
What is the value of these coins?



What You Do

1. Take turns. Roll the number cube. Find the amount of money next to that toss in the table.

2. Find the group of coins or bills on the **Game Board** that has the same value.

3. Your partner checks the answer. If you are correct, cover that box with a game marker. If you are incorrect, your turn ends. If there are no boxes left with that value, your turn ends.

4. The first player to cover three boxes in a row wins.

| Toss | Number |
|------|----------------|
| 1 | 18¢ |
| 2 | one \$20 bill |
| 3 | 99¢ |
| 4 | three quarters |
| 5 | \$10 |
| 6 | Your turn |

Differentiated Math Center Activities let every student participate meaningfully and be a valued member of a team.

Make a Ten to Add

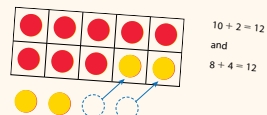
Dear Family,

This week your child is learning to use the **make a ten strategy** to add two numbers.

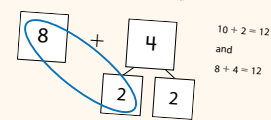
Adding two numbers can be easier when one of the numbers is 10. Using the **make a ten strategy** will help your child to quickly add two numbers that have a total greater than 10.

Look at two ways you can make a ten to find $8 + 4$.

- You can use counters to make a ten. Start with 8 counters and 4 counters. Take 2 counters from 4 to make 10.



- You can use number bonds to make a ten.

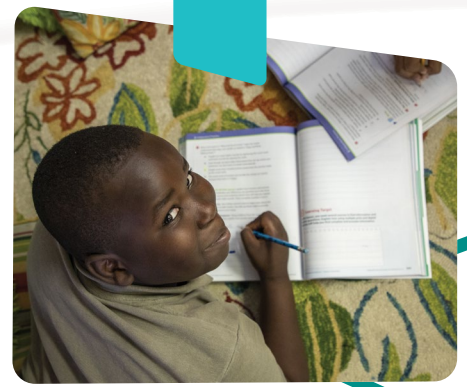


Invite your child to share what he or she knows about making a ten to add by doing the following activity together.

Family Letters bring the concepts from class into the home and encourage students to practice academic communication with a broader audience.

It's All Here

i-Ready Classroom Mathematics' features work together to support rich, interconnected learning. Whether you're looking at the Student Worktext, the Teacher's Guide, the Student Digital Experience, or the Teacher Digital Experience, you'll see our commitment to SEL integration.



Student Worktext



- Assessments (Formal and Informal)
- End-of-Lesson Checklist (6–8)
- End-of-Unit Self-Reflections
- English Learner Supports
- Family Letters
- Math in Action lessons
- Math Journal questions
- Try–Discuss–Connect routine
- Reflect prompts
- Reflect Questions
- Self Check
- Unit Review

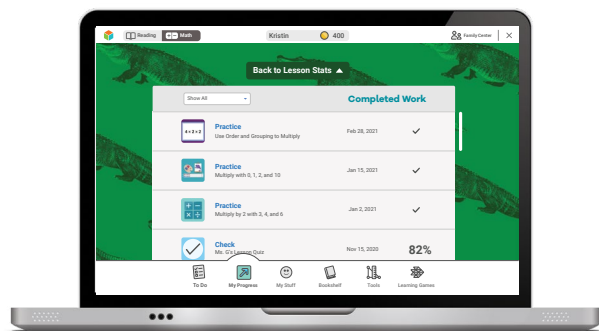
Teacher's Guide



- Ask/Listen For guidance
- Assessments (Formal and Informal)
- Connect to Community and Cultural Responsiveness
- Deepen Understanding
- Develop Language
- End-of-Lesson Checklist (6–8)
- End-of-Unit Self-Reflections
- English Learner Supports
- Family Letters
- Language Objectives
- Lesson Quizzes
- Math in Action lessons
- Math Journal questions
- Mid-Unit Assessments
- Pair/Share prompts
- Real-World Connection
- Reflect prompts
- Reflect Questions
- Select and Sequence Student Solutions
- Self Check
- Try–Discuss–Connect routine
- Unit Review

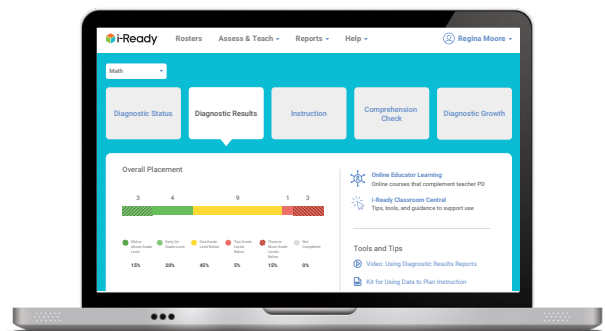


Student Digital Experience



- Assessments (Formal and Informal)
- Digital Math Tools
- English Learner Supports
- Family Letters
- Interactive Learning Games
- Lesson 0
- My Progress

Teacher Digital Experience



- Assessments (Formal and Informal)
- Comprehension Checks
- Data Chats
- Diagnostic
- Digital Math Tools
- Discourse Cards/Discourse Cube
- English Learner Supports
- Family Letters
- Lesson 0
- Lesson Quizzes
- Math Center Activities
- Mid-Unit Assessments
- Small Group Differentiation
- Unit Games





For more information:

Contact your educational consultant at

CurriculumAssociates.com/FindYourRep

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i-Ready experience, follow us on social media!**



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