

# Try–Discuss–Connect Routine

## Overview

The Try–Discuss–Connect routine is designed to support teachers with successfully managing classroom discourse and to encourage students to engage in the Standards for Mathematical Practice. This routine is typically facilitated during the Explore and Develop sessions of a *i-Ready Classroom Mathematics* lesson. There are three parts to the routine, and each part has two steps. Slides for facilitating the Try–Discuss–Connect routine can be found on the Teacher Toolbox for every lesson.

## Try It

- **Make sense of the problem.**
- **Solve and support your thinking.**

During the Try It part of the routine, students make sense of the problem with their classmates. Then, they try the problem on their own using strategies that draw from their prior knowledge of mathematical concepts.

## Discuss It

- **Share your thinking with a partner.**
- **Compare strategies.**

During the Discuss It part of the routine, students share their strategies with a partner using sentence starters to launch the conversation. Then, they engage in a whole class conversation about selected class strategies and representations presented in their Student Worktext.

## Connect It

- **Make connections and explain your thinking.**
- **Apply your thinking to a new problem.**

During the Connect It part of the routine, students answer questions about the strategies and representations they've examined. Then, they apply what they've learned to new problems.

Each step of the routine is important. For extra support, you may want to print out the Reference Sheets on the next pages to refer to during class. Additional support can also be found in the Teacher's Guide pages for Lesson 0 on the Teacher Toolbox.



## REFERENCE SHEET

### Try It

The *Try It* step launches the Try–Discuss–Connect routine and has two parts: *Make Sense of the Problem* and *Solve and Support Your Thinking*.

## Make Sense of the Problem

### Why?

Reduce language barriers and build the capacity of all students to make sense of a math problem before jumping in to solve it.

### How?

Display the problem on the board using the Make Sense of the Problem slide. Then, engage students in Three Reads of the problem.

#### TRY IT Make sense of the problem

Eva bought a bag of 475 glass beads.  
She used 134 beads to make a necklace.  
How many beads are left in the bag?

- What is the problem about?
- What are you trying to find out?
- What information is important?

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## What It Looks Like:

Purpose of Each Read	What is the teacher doing?	What are students doing?
<b>1st Read:</b> Clarify context and vocabulary.	<ul style="list-style-type: none"> <li>• Asking students to think about the question: “What is the problem about?” then reading the problem aloud to the class</li> <li>• Selecting students at random to quickly share what the problem is about</li> </ul>	<ul style="list-style-type: none"> <li>• Visualizing what is happening in the problem</li> <li>• Sharing a word or phrase that quickly summarizes the context of the problem</li> <li>• Clarifying words that are confusing or have more than one meaning</li> </ul>
<b>2nd Read:</b> Interpret the question.	<ul style="list-style-type: none"> <li>• Asking students to think about the question: “What are you trying to find out?” then having a student volunteer to read the problem</li> <li>• Asking multiple students to share what they think the problem is asking them</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying what they are being asked to find out</li> <li>• Rephrasing what the problem is asking in their own words</li> </ul>
<b>3rd Read:</b> Identify information.	<ul style="list-style-type: none"> <li>• Asking students to think about the question: “What information is important?” then having students read the problem together as a class or with a partner</li> <li>• Asking pairs to share, rephrase, or reword the important information</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying quantities and relationships in the problem</li> <li>• Sharing their thinking with a partner, then the class</li> </ul>

## Essential Resources for Pilots

## Things to Watch Out For:

- ⚠️ **Make sure students know that they are sharing what the problem is about, not how they might solve the problem.** The focus should be on sense making, not answer getting.
- ⚠️ **Be careful not to over-scaffold the support you provide** during this step by encouraging students to use certain strategies or interpreting the problem for them.
- ⚠️ **Resist the urge to model or solve the problem for students.** This reduces their capacity to try if they're relying on someone else to do the thinking.

## Solve and Support Your Thinking

### Why?


Give all students time to process information, formulate their own ideas, and productively struggle with a concept.

### How?

Display the problem to the class using the Solve and Support Your Thinking slide, and ask students to begin solving the problem on their own in their books in the space provided.

**TRY IT** Solve and support your thinking

Eva bought a bag of 475 glass beads.  
 She used 134 beads to make a necklace.  
 How many beads are left in the bag?


**Math Toolkit**  
 • base-ten blocks  
 • place-value charts  
 • number lines

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## What It Looks Like:

What is the teacher doing?	What are students doing?
<ul style="list-style-type: none"> <li>Circulating the room, monitoring student work</li> <li>Beginning to note which two to three strategies might be worth sharing during the classroom conversation</li> </ul>	<ul style="list-style-type: none"> <li>Working independently</li> <li>Persevering when they get stuck</li> <li>Showing their thinking using concrete manipulatives, models, pictures, words, and/or equations</li> </ul>

## Things to Watch Out For:

- ⚠️ **Providing too little or too much think time.** Three to five minutes is usually sufficient, but you may adjust based on student responses. It is okay if students do not finish solving the problem.
- ⚠️ **Resist the urge to provide hints or show students how to do the problem if they get stuck.** If students are struggling, ask a question to help them get “unstuck,” such as, “How could you show a model for this?” Then walk away so they have time to try it on their own.
- ⚠️ **If a student finishes early, encourage them to show another way to solve the problem.**



## REFERENCE SHEET

# Discuss It

The *Discuss It* step happens after the *Try It* step and has two parts: *Share Your Thinking with a Partner* and *Compare Strategies*.

## Share Your Thinking with a Partner

### Why?

Every student is engaged in explaining their thinking, which builds their confidence and competence to speak mathematically. Partner talk time also gives students an opportunity to rehearse their explanation before the whole class conversation.

### How?

Display the Share Your Thinking with a Partner slide and prompt students to share their thinking with a partner.

### DISCUSS IT Share your thinking with a partner



**Ask your partner:** How did you get started?

**Tell your partner:** I am not sure how to find the answer because . . .

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## What It Looks Like:

### What is the teacher doing?

- Posing the sentence starters or questions on the slide to initiate partner conversations
- Circulating the room, listening to student conversations, and gathering formative assessment information
- Selecting and sequencing strategies for the whole class discussion

### What are students doing?

- Explaining their strategy
- Listening and asking questions
- Critiquing the reasoning of their partner
- Finding connections between their strategy and their partner's strategy

## Things to Watch Out For:

- ⚠ **Sometimes, students aren't sure who should talk first.** Establishing A/B partners ahead of time will ensure that students can jump right into the conversation.
- ⚠ **To make sure one partner doesn't take over the conversation, it can be helpful to provide time frames** for speaking, such as, "Partner A will share for one minute, then Partner B will share for one minute."
- ⚠ **Monitor conversations closely.** If the students get quiet or talk about something other than their strategies, they are ready to move on.

## Essential Resources for Pilots

## Compare Strategies

### Why?

Students become empowered to lead classroom conversations and learn to attend to one another's mathematical thinking. Exposure to multiple strategies helps students think flexibly about their approaches to solving problems.

### How?

Display the Compare Strategies slide and facilitate a whole class conversation about the approaches and representations used to solve the problem.

**PICTURE IT** Compare strategies

**You can use base-ten blocks to subtract three-digit numbers.**

This model shows  $365 - 186$ . All the blocks show 365. One ten and one hundred are regrouped. The blocks crossed out show 186.

10 tens = 1 hundred      10 ones = 1 ten

Blocks that are left: 1 hundred + 7 tens + 9 ones

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### What It Looks Like:

#### What is the teacher doing?

- Asking selected students to explain their strategies to the class and having the class analyze the strategies
- Using the Ask/Listen For prompts in the Teacher's Guide to facilitate a discussion about the Picture It/Model It representations in the Student Worktext
- Prompting the class to make connections between the strategies presented by students and the representations in the Student Worktext

#### What are students doing?

- Explaining and analyzing the similarities and differences between the strategies that have been presented
- Agreeing/disagreeing, adding on to, or restating one another's thinking
- Actively listening and participating by asking questions and repeating/rephrasing another student's thinking when prompted

### Things to Watch Out For:

- ⚠ **Be careful not to repeat or rephrase ideas for students.** If the teacher is always repeating or rephrasing ideas, students will stop actively listening to one another.
- ⚠ To ensure everyone is part of the conversation, **ask the class to show hand signals to indicate agreement or disagreement** when posing an idea or question.
- ⚠ To make sure the sharing of student strategies doesn't become a show and tell, **select no more than two to three key strategies for the discussion.** Not sure which student strategies to select for the whole class discussion? Use the Select and Sequence Student Responses feature from your Teacher's Guide for additional support.
- ⚠ **Consider including errors or incorrect approaches when a common misconception arises.** It's important for students to see errors as an opportunity for learning, rather than something to avoid.





## REFERENCE SHEET

# Connect It

The **Connect It** step happens after the **Discuss It** step and has two parts: **Make Connections and Explain Your Thinking** and **Apply Your Thinking to a New Problem**.

## Make Connections and Explain Your Thinking

### Why?

Students are solidifying connections to the mathematical learning goals orally and in writing. Making explicit connections to the mathematics deepens understanding and helps students internalize the central mathematical concepts for the lesson.

### How?

Display the Make Connections and Explain Your Thinking slide. Monitor student thinking to inform which questions are most important to emphasize during the whole class conversation.

### CONNECT IT Make connections and explain your thinking

#### 2 LOOK AHEAD

You can solve subtraction problems in different ways. Breaking apart numbers is one way to make a problem easier.

Suppose you had the subtraction problem  $525 - 213$ .

- Break apart 525 in hundreds, tens, and ones.
- Break apart 213 in hundreds, tens, and ones.
- Subtract ones from ones, tens from tens, and hundreds from hundreds to find  $525 - 213$ .
- Check your answer by estimating. Round 525 and 213 to the nearest ten or hundred and subtract. Does your answer make sense? Explain.

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### What It Looks Like:

#### What is the teacher doing?

- Making decisions about which questions students complete independently or together based on the conversations that happened during the Discuss It step
- Selecting key questions to discuss as a class, focusing on those that summarize key understandings

#### What are students doing?

- Responding to the Connect It questions independently or in pairs to solidify understanding of the mathematical ideas in the lesson
- Sharing their thinking aloud about key questions as part of a whole class discussion to deepen connections and reflect on their learning

### Things to Watch Out For:

- ⚠ While this page should serve as a record of the classroom conversation, it is not intended to be filled out like a traditional workbook.** Many of these questions will come out of the conversation that happened during the Discuss It step and are designed to help students demonstrate deep conceptual understanding before applying what they've learned.
- ⚠ Sometimes, especially in the beginning of the year, students may struggle with recording their thinking in writing or articulating their response to the questions.** You may want to discuss the questions as a class together, recording one or two key phrases on the board. Then, ask students to use those terms when crafting their own responses orally or in writing.

## Apply Your Thinking to a New Problem

### Why?

Students are working toward procedural fluency by demonstrating the flexible use of strategies with new problems.

### How?

Students are solving the Apply It problems in their Student Worktexts while the teacher circulates the room, collecting formative assessment data on what students have learned so far.

### What It Looks Like:

What is the teacher doing?	What are students doing?
<ul style="list-style-type: none"> <li>• Allowing students to work independently on the Apply It problems to practice what they've learned</li> <li>• Using student responses from the Close: Exit Ticket to collect formative assessment information</li> <li>• Providing support with the recommendations from the Error Alert feature in the Teacher's Guide</li> </ul>	<ul style="list-style-type: none"> <li>• Solving problems on their own, making decisions about which strategies are most effective for a given problem</li> <li>• Checking their work and revising their thinking</li> </ul>

### Things to Watch Out For:

- ⚠️ **Resist the urge to jump in if students ask for help right away.** Encourage students to persevere on their own first to build their stamina for problem solving.
- ⚠️ **If there are students who finish early, encourage them to review their work carefully.** Then, ask them to begin working on the Additional Practice pages.

**APPLY IT** Apply your thinking to a new problem

7 Ellie is reading a book with 853 pages. Over the weekend, she reads 146 pages. How many more pages does she need to read to finish the book?

Ⓐ 670 pages

Ⓑ 703 pages

Ⓒ 707 pages

Ⓓ 713 pages

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