



Discussion BuildersTM

Teaching Guide

For Grades 4–8



M a t h
PATHWAYS & PITFALLS[®]

Discussing to Learn and Learning to Discuss

About Discussion Builders[™]

How does discussion help students learn?

Talking, thinking, and understanding go hand in hand. For example, when we think through an issue or problem, we often hold a silent inner dialogue or a spoken conversation with others before reaching a conclusion. These dialogues, especially in conversations with others, strengthen logic and communication skills that we use throughout our lives. Whether discussing a topic in history, science, or math, students benefit from collaboratively analyzing a problem or an issue, raising and resolving questions, building on each other's ideas, and learning multiple ways of thinking about an issue. Discussion also provides opportunities to practice important vocabulary, develop listening skills, and present and critique ideas. As students increase these abilities, their confidence in themselves as thinkers and learners increases as well. The result is a mutually reinforcing dynamic that maximizes learning outcomes.

Why were the *Discussion Builders* posters developed?

The *Discussion Builders* posters and teaching guides were developed to scaffold students' reasoning, providing a supportive framework that is easy and fun for students to use as they present, expand, and reflect on important ideas.

The *Discussion Builders* posters include three sections that remind students of ways to participate in a productive discussion. Each section lists several sentence stems that provide wording for the first part of comments or questions. Sentence stems prompt students to use language that elevates the discussion beyond simple idea sharing to building on, analyzing, and justifying ideas. They also model ways to communicate using a collaborative and considerate tone, helping to create an environment that is inclusive of all students. *Discussion Builders* enhance learning because they help teachers get students in any subject to talk — and think — more analytically and respectfully.

How do teachers use the posters?

In the beginning of the year, use the step-by-step guide on pages 4 and 5 to introduce students to the *Discussion Builders*. Post the *Discussion Builders* poster in the front of the room so students can refer to it during discussion. Initially, reinforce use of the poster by pointing out how a student used a *Discussion Builder* to contribute to discussion. Also, if students avoid using a particular *Discussion Builder*, point to the poster and remind them that they might want to “ask a question” or “build on someone’s idea.” In this way, students can practice various ways to participate in a discussion while you guide the direction of the discussion. Use the Process Check (pages 6 and 7) occasionally so students can reflect on the quality and success of a discussion.

The poster may be used in whole-class discussions, small groups, and partner discussions. After seeing *Discussion Builders* modeled in whole-group discussions, students begin to spontaneously use the sentence stems within any type of discussion.

During paired discussions, you may circulate in the room and invite two or three students to contribute their thinking to the whole-class discussion that will follow. This personal invitation and encouragement especially helps boost the confidence of students who are not yet comfortable verbalizing their thoughts. It also sets an expectation that everyone will contribute and that you will support them as they learn to express their ideas.

How do the *Discussion Builders* posters work in classrooms?

Classroom community and shared understanding. “I’m confused about Teresa’s idea.”

Using the *Discussion Builders* poster fosters a community of learners in which the goal is shared understanding. By engaging in discourse, the students and teacher together shape an accurate interpretation of the subject matter. Any misunderstandings can be gently remedied before becoming stubbornly lodged in a student’s thinking.

In addition, *Discussion Builders* sentence stems encourage students to use a classmate's name while responding to their idea. Having another student say, "I'd like to build on Jamie's idea" is a powerful experience that helps "Jamie" feel valued for his contribution. After perceiving such a positive exchange, students are more willing to contribute to the discussion and listen attentively to their classmates.

Use with English learners. The *Discussion Builders* poster effectively provides English learners with access to classroom discourse, from which they are often excluded. Sentence stems model a way for English learners to begin to verbalize their ideas. Graphic cues — a light bulb, building blocks, and a question mark — help students quickly focus on a particular aspect of discussion, without needing to translate section headings.

In order to develop their English language skills, students need to talk. Listening is not enough. Initially, English learners may benefit from pairing with a fellow bilingual classmate to discuss complex problems in their primary language. As a pair, they can clarify ideas as well as rehearse the language necessary to communicate concepts to the class in English. Throughout whole-class discussions, English learners hear others share ideas in English, further reinforcing correct syntax and vocabulary. Writing key words on the board or making drawings or diagrams are other ways to help students follow the discussion. You can also facilitate participation of English learners by ensuring that students have time to process the information and formulate their responses to questions.

Differences across the grades

This poster is one of three available, each targeting a specific age group (grades K–1, 2–3, and 4–8). Posters and teaching guides scaffold progressively more complex reasoning across the grades. As students expand and develop their discussion skills from year to year, they can be expected to increasingly contribute to discussions in a reflective, rational, and courteous manner.

Introducing the *Discussion Builders*

We suggest you introduce the *Discussion Builders* over a period of three days. Each day, conduct a 5- to 10-minute discussion in any subject area. Ask students to focus on one section of the *Discussion Builders*.

Day 1. Presenting Alternative Ideas

15 minutes



- **Read the poster together.**

"We are going to use the *Discussion Builders* to help us learn how to have good discussions."

- **Point to and read the section *Presenting Alternative Ideas*.**

"Why might it be important to use these during a discussion?"

"What might _____ sound like during a discussion?"

"What might someone say or ask?"

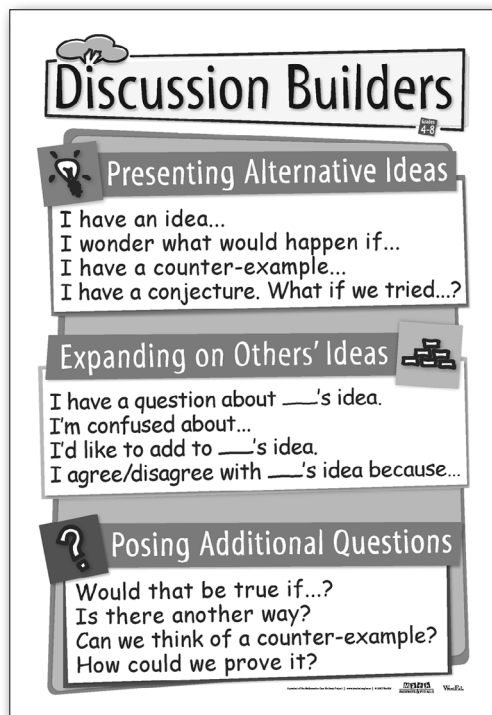
- **Conduct a whole-class discussion in any subject area and ask students to use some of the language in this first section of the poster.**

- **Debrief after the discussion.**

"Did anyone hear an alternative idea presented?"

"How was it helpful to the discussion?"

- **Ask students to use these ways to present alternative ideas when they have other discussions.**



Day 2. Expanding on Others' Ideas

15 minutes



- **Point to and read the section Expanding on Others' Ideas.**
"Why might it be important to use these during a discussion?"
"What might _____ sound like during a discussion? What might someone say or ask?"
"How are these different from Presenting Alternative Ideas?"
- **Conduct a whole-class discussion in any subject area and ask students to use some of the language in this second section of the poster.**
- **Debrief after the discussion.**
"Did anyone hear someone expand on an idea?"
"How was it helpful to the discussion?"
"Were any other *Discussion Builders* used?"
"Were there any we didn't use?"
- **Ask students to use these ways to expand on others' ideas when they have other discussions.**

Day 3. Posing Additional Questions

15 minutes



- **Point to and read the section Posing Additional Questions.**
"Why might it be important to use these during a discussion?"
"How are these different from Presenting Alternative Ideas and Expanding on Others' Ideas?"
"What might _____ sound like during a discussion? What might someone say or ask?"
- **Conduct a whole-class discussion in any subject area and ask students to use some of the language in this third section of the poster.**
- **Debrief after the discussion.**
"Did anyone hear an additional question posed?"
"How was it helpful to the discussion?"
"Were any other *Discussion Builders* used?"
"Were there any we didn't use?"
- **Ask students to use these ways of posing additional questions when they have other discussions.**

Using the Process Check

Purpose

- The Process Check helps students reflect on how they contributed to the discussion.

Prepare Ahead

- Make a copy of the Process Check for each student.

Use the Process Check

- Following any class discussion, pass out copies of the Process Check and explain its purpose.
- Begin by asking students a question or two to call their attention to the meaning or importance of an item on the Process Check.
“How do you know when someone is being respectful?”
“Why is it important to listen carefully to someone else’s idea?”
- Read each item on the Process Check together and ask students to check the boxes that tell how they helped the discussion.
- Ask students to write about what they learned from the discussion.
- After a few minutes, collect the completed Process Checks. Briefly report back to students about what you notice about their responses.
“Several of you added to someone’s idea today. That helped our discussion.”
“Four of you showed your idea today at the board. That helped us understand.”

Process Check

How did I help to make this a better discussion?
Check the boxes.

- ☐ I gave an example or a counter-example.
- ☐ I introduced an idea or a conjecture.
- ☐ I expanded on someone else's idea.
- ☐ I presented an alternative way.
- ☐ I asked a question to make us think harder or to prove an idea.
- ☐ Someone else talked about my idea.
- ☐ I showed interest and listened, whether I talked or not.
- ☐ I disagreed or questioned an idea in a respectful way.

Write about one way you contributed to the discussion
or something you learned.

About Math Pathways & Pitfalls®

The *Discussion Builders* posters were developed as part of a larger body of work from projects at WestEd that were directed by Carne Barnett-Clarke and co-directed by Alma Ramírez. The umbrella project for this work is Math Pathways & Pitfalls. It grew from a series of projects that began in 1987 and continued with generous grants from the National Science Foundation and the Stuart Foundation. The projects have three interrelated strands: professional development for teachers; mathematics achievement and language development for students; and teacher leadership development. The resulting products and services have been field-tested with diverse groups of teachers and students nationwide to ensure their effectiveness.

WestEd is a nonpartisan, nonprofit organization that aims to improve the lives of children and adults at all ages of learning and development. We do this by addressing challenges in education and human development, reducing opportunity gaps, and helping build communities where all can thrive. WestEd staff conduct and apply research, provide technical assistance, and support professional learning. We work with early learning educators, classroom teachers, local and state leaders, and policymakers at all levels of government.

For more information about WestEd, visit our website: WestEd.org; call 415.565.3000 or toll free (877) 4.WestEd; or write: WestEd, 730 Harrison Street, San Francisco, CA 94107-1242. For more information about Math Pathways & Pitfalls specifically, visit mpp.WestEd.org.

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