

PUZZLE TALK FACILITATION GUIDE

TEACHER
RESOURCE



Ready to get started with Puzzle Talks? You can easily do so using the guiding questions in our Puzzle Talk platform. However, it may be helpful to have a few more strategies in your tool belt to foster math discourse in your classroom.



SET THE STAGE







ESTABLISH A PURPOSE:

Support students in understanding the “why” of math discourse. We are here to:

- ✓ Share what’s happening in our brains and learn from one another.
- ✓ Appreciate the process over the outcome and engage our curiosity.
- ✓ Respond to, persevere through, & learn from mistakes together.
- ✓ Be playful and have fun!

ESTABLISH DISCOURSE NORMS:

For students, consider hand signals and sentence stems as they share and respond to others.

Hand Signals:	Sentence Stems:
 I am ready and thinking.	
 I have an answer.	I think we should _____ because _____.
 I agree.	I agree because _____.
 I disagree.	I disagree because _____.
 I have more than one strategy.	Another strategy to solve this is by _____.
 I can add to that idea.	I agree with _____ and want to add to that by _____.



FOSTER DISCOURSE

ENCOURAGE DEEP THINKING:

Use questions that promote:



Further explanation

"You think the answer is 42. How did you figure that out?"



Justification of students' solutions

"Why do you think we should fill in $1\frac{1}{2}$ rectangles?"



Defining math vocabulary used to ensure understanding

"You said you saw fractions. What is a fraction?"



Connections to core curriculum

"Where have you seen an image like this before? What does this remind you of?"

RESPOND THOUGHTFULLY:

During math discourse, consider how you respond to students. Thoughtful responses can provide a sense of safety to students as they share and explore their thinking and learn from others.

- **After students share, restate *without*:**
 - Affirming or redirecting - avoid bias toward correct responses, save the incorrect ones for further learning
 - "Rounding up" responses - adding to what students say to make it "more right"
- **Try a variety of solutions** - not just the ones that could be successful.
- **Use incorrect solutions or misconceptions as learning opportunities.**
 - What did you notice? What would you change?
 - If this *were* the correct answer, how would that change the initial elements of the puzzle?
- **Pause the animation and use the annotation tools to support observations and understanding.**

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EXTEND THINKING

Take your Puzzle Talk to the next level through questions and scenarios that ask students to dig deeper and think flexibly.

Consider trying out the following with an ST Math Puzzle:



What if...

"What if the order of the numbers changed?"



Limiting Factor

"Solve it without using _____."



Multiple Models

"Show two ways to solve it. Compare the two."



Word Problems

"Create a word problem for this puzzle."



Real-world

"How do you think an artist might use this math concept?"



READY TO GET STARTED ?

Access Puzzle Talk lessons through the Curriculum dropdown menu in your educator console. From there, you can filter the available lessons to meet the needs of your students.

