

Reasoning Talks: Creating Number Talk Reasoning Structures for Grades 6–8

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Reasoning Talks can include such things as:

- Recognizing what is important about a problem
- (what kinds of things matter in the problem)
- Generating a possible solution pathway
- Developing questions about the problem presented
- Making connections between relationships
- Developing a conjecture
- (Provide a conjecture) consider a counter argument

Developing Reasoning Talks

Task: *How does it relate to the standards?*

Prompt: *How do you want them to consider this?*

The Math: *What mathematics will be involved or be the focus?*

Anticipating & Misconceptions: *How might they be thinking?*

Questions: *What will you ask to probe for clarity?*

Why Focus on Mathematical Reasoning?

“Mathematical reasoning comprises a major area of school mathematics that is crucial for students to learn but challenging for teachers to teach.”

- Students often rely too heavily on teachers, text books, or guess and check
- Use an algorithm without knowing how or why it is appropriate
- Begin and proceed with work without understanding
- Reasoning connects larger ideas and behaviors wanted in doing mathematics beyond current content

Lannin, J. K., Ellis, A. B., & Elliott, R. (2011). *Developing Essential Understanding of Mathematical Reasoning for Teaching Mathematics in Grades Pre-K-8*. Reston, VA: NCTM.

Successful Reasoning Talks

- Are well planned and developed
- Make connections to key concepts
- Press thinking through focused questions
- Occur regularly in the classroom
- Encourage clarity in language

To Learn More

Reasoning Talk Paper

<http://bit.ly/ReasoningTalk>



Reasoning Talk NCTM Blog

<http://bit.ly/ReasoningTalkNCTM>



Planning Template

Developing Reasoning Talks	
Task:	Goal:
Prompt:	
Mathematics Involved:	Questions: Probing & Clarity
Notes:	

