

Generating Math Talk that Supports Mathematical Thinking and Learning

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Math Talk



Why Math Talk?

Talk Is Critical to Teaching and Learning as it can

1. Reveal understanding and misunderstanding
2. Supports robust learning by boosting memory
3. Supports deeper reasoning
4. Supports language development
5. Supports development of social skills

Mathematics

What is Mathematics?

Mathematics is the science of patterns.

Delvin, 2000, p 3.

Delvin K.J. (1998, 2000). The Language of mathematics: Making the invisible visible. New York: Freeman & Company.

Language of Mathematics

When two numbers are added, their order is not important.

In symbolic form:

$$a + b = b + a$$



Talk Moves

1. Move 1: Revoicing

- “You’re saying it’s an odd number, is that what you mean?”

2. Move 2: Repeating

- “Can you repeat what he just said in your own words?”

3. Move 3: Reasoning

- “Do you agree or disagree and why?”

4. Move 4: Adding On

- “Would someone like to add something more to this?”

5. Move 5: Wait Time

- “Take your time...we’ll wait....”

Routines for Math Talk

Establish ground rules for respectful and courteous talk until the rules become a routine part of your classroom culture

- i. Every pupil is listening to what others say
- ii. Every pupil can hear what others say
- iii. Every pupil may participate by speaking out at some point

Prompts for Group Conversation

- What does ...
- What do you ...
- Can you share ...

• I agree with _____
because ...

• I disagree with _____
because ...

• What did you mean
when you said ...?

• I wonder ...

That
reminds
me of...

with _____
because...

I disagree
with _____
because...

Accountable
Talk

In
my
opinion...

I would
like to
add...

work?
cause'

Conclusion: Generating Math Talk

1. Talk Moves is an essential tool in math lessons

- A roadmap for managing the flow of talk:
 - When do I speak and why?
 - When do students speak and why?
 - How can I make sure that all students participate?
 - How can I maintain the focus in the mathematical concepts if the students talk more?
 - What sort of talk is mathematical talk?

Conclusion: Generating Math Talk

2. Providing opportunities for students to
 - Explain and justify their mathematical reasoning
 - Inquire into and explore the mathematical thinking of others and
 - Justify and challenge the thinking of others when appropriate