



Using Structured Talk Protocols and Discourse Routines

What is it?

Simple talk protocols and discourse routines are essential tools in the math classroom for promoting active student engagement and enhancing understanding. They are short, easy to implement routines that can encourage participation and scaffold students' use of mathematical language.

Why is it important?

The use of talk protocols and discourse routines encourages every student to participate and provides opportunities for students to articulate their mathematical thinking. Additionally, they provide targeted language support for understanding context, content, and vocabulary. When students struggle to launch into discourse, the structure of a routine can provide an entry point for every student into the discussion.



How to get Started

Introduce and Provide Purpose: Introduce each structured talk protocol (see below for a comprehensive list of protocols) to students. Explain the purpose and benefits of each protocol in fostering mathematical discourse and collaborative learning.

- Purposes of talk protocols:
 - encourage every student to participate.
 - provide opportunities for students to articulate their mathematical thinking.
 - facilitate peer learning through discussion.
- Benefits of talk protocols:
 - foster a collaborative learning environment where students can share and refine their ideas, leading to deeper comprehension.
 - build communication skills as students learn to express their reasoning clearly and listen to others' perspectives.
 - create a low-stakes environment where students can test out their thoughts and receive immediate feedback from peers before sharing with the larger group.



Examples of Structured Talk Protocols

- **Simple Talk Protocols:** Simple talk protocols are for promoting active student engagement and enhancing understanding.
 - **Turn and Talk:** Pair students to discuss a problem or concept before sharing with the larger group.
 - **Think-Pair-Share:** Have students think individually, discuss with a partner, and then share with the class.
 - **Numbered Heads Together:** Assign numbers to students in groups and call on specific numbers to share the group's thoughts.

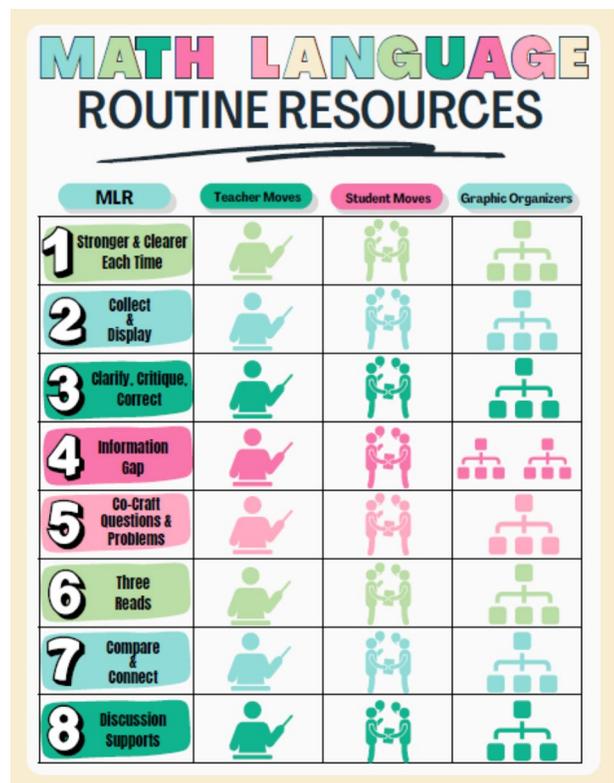


Using Structured Talk Protocols and Discourse Routines

Examples of Structured Talk Protocols (continued)

- **Math Language Routines:** [Math Language Routines](#) (MLRs) are structured approaches that support student discourse by scaffolding the use of precise mathematical language and fostering a deeper understanding of concepts. These routines provide a consistent framework for students to engage in meaningful discussions, enhancing their ability to articulate and reason about mathematical ideas. MLRs encourage students to use and understand key mathematical terms, engage in structured conversations, and build on each other's ideas. Click on the image to the right to learn more about each of the MLRs. **MLR Resource (click on the image to the right to access the resources).**

Created by Lynzi Daniel, Coordinating Teacher, Wake County Public School System



The image shows a grid titled "MATH LANGUAGE ROUTINE RESOURCES". The grid has four columns: "MLR", "Teacher Moves", "Student Moves", and "Graphic Organizers". There are eight rows, each representing a different routine. Each cell in the grid contains an icon representing the routine, the teacher move, student move, or graphic organizer associated with it.

	MLR	Teacher Moves	Student Moves	Graphic Organizers
1	Stronger & Clearer Each Time	Teacher pointing	Two students talking	Flowchart
2	Collect & Display	Teacher pointing	Two students talking	Flowchart
3	Clarify, Critique, Correct	Teacher pointing	Two students talking	Flowchart
4	Information Gap	Teacher pointing	Two students talking	Flowchart
5	Co-Craft Questions & Problems	Teacher pointing	Two students talking	Flowchart
6	Three Reads	Teacher pointing	Two students talking	Flowchart
7	Compare & Connect	Teacher pointing	Two students talking	Flowchart
8	Discussion Supports	Teacher pointing	Two students talking	Flowchart

Ideas to Ponder



Math Discourse Moves: NC²ML has selected a set of 9 discourse moves that you can use in any instructional scenario — including in each of the routines described above. The resources available on the NC²ML website include a teacher toolkit for each discourse move. ([See the Discourse Moves resources linked here.](#))

Selecting Partners / Groups: [Here are some strategies for Students to Select Partners/Groups](#)

Planning Matters: [Here are some planning considerations to help talk protocols go smoothly.](#)

Differentiation: Consider the diverse needs and strengths of students when selecting and implementing structured talk protocols. Provide scaffolds and supports such as sentence starters or visual aids to help all students, including multilingual learners, participate effectively.

Consistent Implementation: Establish routines for using structured talk protocols consistently throughout lessons. Regular practice helps students become familiar with the protocols and develop proficiency in engaging in mathematical discourse.



Questions to Consider with Colleagues

- 1 Which structured talk protocols are most effective for different types of math tasks and activities?
- 2 How can we adapt talk protocols to meet the diverse language needs of our students?
- 3 What data can we collect to evaluate the effectiveness of structured talk protocols in our math classroom?



We're not just teaching our students math, we're getting them ready for the world.



Note: This resource is being co-designed by the NC math education community. We welcome feedback to inform its refinement at <https://forms.gle/8PBWGsvqJQzcdtCF8> Check the website (nc2ml.org/high-school-teachers) for the most up to date resources.

North Carolina Collaborative for Mathematics Learning | Creating an Environment for Student Discourse | Last Updated: August 6, 2024