

Math Teaching Practice #4 encompasses four of the eight effective teaching practices.

Facilitate meaningful mathematical discourse

Pose purposeful questions

Use & connect mathematical representations

Support productive struggle in learning mathematics

Adapted from Huinker & Bill (2017, p. 245)

Effective mathematics teaching engages students in purposeful discourse—through discussion, verbal, visual, and written communication—to deepen understanding, justify reasoning, develop mathematical language, and consider multiple perspectives.

NCTM (2014, p. 29)

As a teacher I...

- encourage students to share their math ideas, thinking, and strategies, using a variety of representations.
- select and sequence student solutions to discuss as a class.
- help students lead or contribute to discussions by explaining and supporting their own ideas.
- guide discussions to connect student thinking to the math goals of the lesson.
- build a community wherein students listen to and value each person's ideas.

so that my students...

- share and explain math ideas, thinking, and representations with partners, small groups, and the whole class.
- listen respectfully and carefully to classmates' ideas and consider examples to support and counter-examples to challenge their thinking.
- seek to understand others' strategies, try out their methods, and describe their approaches.
- compare different ways to solve a problem by looking at what is the same and what is different.