

Draft Math Argumentation Rubric

Productive	3 - Innovating	2 - Integrating	1 - Exploring
Talks like an expert: Communicates thinking with precise math language	<ul style="list-style-type: none"> Describes thinking thoroughly and clearly; tells what they did and how they did it. Uses academic terms and expressions, including precise math language. 	<ul style="list-style-type: none"> Describes thinking but description is not yet thorough or clear. Uses some academic terms and expressions, preferring general words to precise math language. 	<ul style="list-style-type: none"> Explains or shows thinking after being prompted and/or supported by peers or teacher. Avoids academic terms and expressions.
Supports thinking with evidence and / or examples	<ul style="list-style-type: none"> Evidence is clear and fully supports the thinking. Evidence is complete, accurate, and detailed. 	<ul style="list-style-type: none"> Provides some evidence and/or resources to support thinking, including a description of tools, drawings, diagrams, or strategies that support claim. Evidence may not completely support thinking. 	<ul style="list-style-type: none"> Little or no evidence was provided to support thinking. Fails to use any resources, such as math tools, strategies, diagrams for support
Interpretive	3 - Innovating	2 - Integrating	1 - Exploring
Asks questions	<ul style="list-style-type: none"> Asks focused questions that clearly relate to the math at hand. Questions help elicit needed information and move the work forward. 	<ul style="list-style-type: none"> Asks few and/or repetitive questions. Questions are somewhat related to the math at hand. 	<ul style="list-style-type: none"> Asks few or no questions. Asks questions that are not clearly related to the math at hand.
Listens actively	<ul style="list-style-type: none"> Appears to listen actively by facing the speaker, making eye contact or using other body language, and taking turns. Is consistently able to repeat or paraphrase what another person says. 	<ul style="list-style-type: none"> Appears to be somewhat focused on what others are saying. Engages in some active listening behaviors such as: facing the speaker, making eye contact and other body language, taking turns. Able to repeat what another person says. 	<ul style="list-style-type: none"> Does not appear to be focused on what others are saying. May interrupt, dominate, or not participate at all. Unable to repeat what another person says.
Collaborative	3 - Innovating	2 - Integrating	1 - Exploring
Engages with others	<ul style="list-style-type: none"> Paraphrases others' ideas and makes connections to them. Frequently incorporates learning from others. Consistently synthesizes key points. 	<ul style="list-style-type: none"> Responds to other's ideas in a way that shows some connection. Sometimes incorporates learning from others. Synthesizes some key ideas. 	<ul style="list-style-type: none"> Attempts to listen and understand other's ideas only when prompted by an adult. Asks others few or no questions. Offers little or no paraphrasing or synthesizing

Adapted from rubrics developed by Kawthar Duncan and Ben Klaus and *Bridging Practices Across Mathematics Educators Project (BPCME)*

Behavior Progression for Partner Argumentation

Phase One

- Facing each other, hands and legs quiet.
- Looking at each other.
- One person shares their claim, evidence and warrant and the other person listens.
- The other person can say or write exactly what the other person has just told them.
- Repeat with the other person

Phase Two

- One person shares their claim, evidence and warrant and the other person listens.
- The other person can say or write in their own words and ask questions what the other person has just told them.
- Repeat with the other person.

Phase Three

- One person shares their idea and the other person listens.
- The other person agrees or disagrees with the other person's claim, evidence and/or warrant and explains why. (Concentrate on agreeing or disagreeing with the argument, NOT the person.)
- Repeat with the other person.

Phase Four

- Each person shares their claim, evidence, and warrant.
- They ask each other clarifying questions.
- They ask each other to explain their evidence in a different way.
- They agree or disagree with each other and state why using their evidence.
- They build upon what they are learning from their partner's argument and improve or change their own argument.