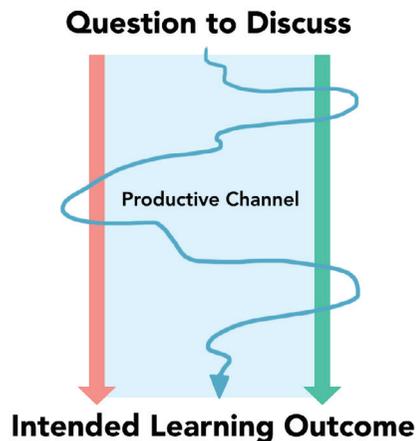


Enact

Discussions that Lead to Learning. Students' ideas come together and deepen as they express and rethink their ideas and reasoning.

Imagine a class discussion as a pathway. This pathway begins with an organizing question and moves toward the anticipated learning outcome. In the center of the path we envision a "productive channel" in which students' ideas build toward the intended understanding. However, discussions seldom play out this way! It's to be expected that ideas sometimes veer off path. Listen to all student ideas as they are likely important building blocks in their learning. When appropriate, guide the discussion back onto the path by simply restating the question.



Eight Key Ingredients of Effective Discussions

- Establish norms for discussions with students.
- Plan to keep the discussion focused and short (10-20 minutes).
- Use the learning goals to determine the discussion question.
- Refer to artifacts from the investigation, e.g., materials, notebook entries.
- Focus on ideas. Elicit ideas with questions like: What do you think?
- Encourage students to consider the evidence and reasoning. Ask, "What's the evidence?" "What makes you think that?"
- Return to the discussion question occasionally to maintain the focus.
- Learn to use "moves" that facilitate productive discussions. See http://inquiryproject.terc.edu/shared/pd/Goals_and_Moves.pdf
Also see "How to Uncover Students' Ideas" in the Reference section of this Guide.

Why Videotape the Science Discussion? As they talk, you'll hear evidence of the ideas students bring to their learning and how their ideas evolve.

Sit with your back to the camera to capture your students' faces and voices. A discussion circle in which students face each other is the most productive configuration for class discussions. Students more readily attend to others' ideas when they can see each other's faces and aren't speaking to anyone's back. Prior to launching the discussion check to be sure:

- only students for whom you have permissions are in the video frame.
- the camera and mini-PC are turned on and linked.
- the camera is recording.