

Study Guide—Complete Step 5 before teaching Investigation 5 of the Grade 5 Curriculum

Use the Step 5 “Independent Web Study” and “In Your Classroom” to prepare for a productive study group meeting and discussion.

INDEPENDENT WEB STUDY

Study the Scientist Case: Roger Tobin—Water to Vapor Investigations

The second section of the curriculum focuses on transformations of matter. Before studying the Scientist Case, review the learning goals for Investigations 5-9. (Note that Investigation 5 is part of Section 1.) What ideas about transformations and keeping track of transformations are highlighted? What are the important ideas you will keep an eye on during class discussions?

Study the Classroom Case: The Role of Explanation Discussions

In this video case from Investigation 5, Colleen supports students in explaining how they know what happened to the salt. What do you notice about the strategies she uses to encourage students to elaborate and explain their ideas, and to use evidence from their investigation? Is there something from this case that you might incorporate into your discussions?

Study the Talk Strategy: Listen Carefully

Students learn from each other by critiquing and building on each other’s ideas. But, for this to happen, they first need to hear and understand each other’s ideas. What strategies support deeper listening? Identify one or more strategies from “Listen Carefully” that you’d like to build into your own teaching.

IN YOUR CLASSROOM

Audiotape an All-class Discussion

Tape a science discussion. (Place the recorder so that it will pick up both your voice and the students’ voices.) After class, listen to sections of the tape. Can you catch yourself using strategies that encourage students to listen to each other? How do your students respond when you use the move? Does using this strategy change the nature of the discussion?

Identify a question or dilemma that arose from your independent study and your experience in the classroom. Plan to talk about your experience in the study group. You may want to identify a short interchange from the tape (~30 seconds) to share during the study group meeting.

STUDY GROUP MEETING

Learn with Colleagues: Share classroom evidence, successes, and challenges

What did you do differently to encourage students to listen to each other? Prepare for a 5-minute discussion of your experience. (There may or may not be time for everyone to share experiences in every study group meeting, but preparing to discuss your own experience will contribute to discussion of others’ experiences.)

Possible Discussion Protocol

1. Plan a core question for discussion.
2. Share your experience (2 or 3 minutes). If feasible, share a short audio or video clip to anchor the discussion (~30 seconds).
3. Respond to colleagues questions
4. Listen while colleagues discuss the issue.
5. Summarize how you are thinking now. What are the implications for your teaching?