

## Study Guide—Complete Step 4 before teaching Section 1 of the Grade 4 Curriculum

Pathway Steps 4-7 are aligned with the *Investigating Earth Materials* unit. Plan to complete each step prior to the associated section of the curriculum (e.g., Step 4, Section 1; Step 5, Section 2). So, for example, Step 4 Independent Web Study, In Your Classroom and the study group meeting should take place just before starting the curriculum.

## INDEPENDENT WEB STUDY

### Study the Scientist Case: Michael Haritos—Properties of Rocks and Minerals

The first section of the curriculum focuses on the complex and varied materials that make up Earth's surface. Before studying the Scientist Case, review the learning goals for Investigations 1.1-1.4. What ideas about rocks, minerals, and soil are highlighted? What important ideas will students develop during these 4 investigations?

### Study the Classroom Case: The Role of Elicitation Discussions

In this video case, Candace introduces the *Investigating Earth Materials* unit with an elicitation discussion. Eliciting student ideas prior to instruction or at the beginning of a new unit: 1) uncovers students' prior knowledge and experience, 2) increases students' awareness of their own relevant ideas and experiences, and 3) expands and broadens their ideas by hearing others' ideas. Because there are no right or wrong answers in these initial discussions, it's a good time to encourage every student to add a voice. What strategies does Candace use to elicit her students ideas? Are there other elicitation strategies you might use when you introduce the unit to help all students to share, expand, and clarify their ideas? Is there something from this case that you might want to incorporate into your discussions?

### Study the Talk Strategy: Share, Expand and Clarify Their Ideas

Become familiar with three teacher talk moves that help children to share, expand, and clarify their ideas: Time to think, Say more, So, are you saying . . .? Identify one of the three moves that you'll begin to make a regular part of your teaching and begin using it in the classroom this week.

## IN YOUR CLASSROOM

### Audiotape an All-class Discussion

Tape the introductory discussion from Lesson 1—"What are some different kinds of earth materials?" (Place the recorder so that it will pick up both your voice and the students' voices.) After class, listen to 1-2 minute sections of the tape. Can you catch yourself using one of the talk moves? How do your students respond when you use the move? How was this strategy effective in eliciting students' ideas?

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 elicit and hear students' ideas? 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. Consider implications for your teaching?