Participants' Guiding Questions for 2nd Meeting

Meeting Focus: Scientific thinking (*because*, *I think this because*); scientific observations

1. Reflecting on Practice

Guiding Questions	Notes
1. How do you think using *because* and *I think this because* helped your students develop and express scientific thinking? Give examples. 2. How do you think using *because* and *I think this because* helped you develop and express your thinking in your own science notebook entries? 3. How often and to what extent did your students express their scientific thinking before you began modeling the use of this word and phrase?	

2. Critiquing Notebook Entries

Guiding Questions	Notes
1. A teacher had students write an observation about paper clips and a magnet using a frame, which is underlined in the sample below. Is the frame effective or ineffective in scaffolding the student's thinking and writing? Explain your answer. ❑ I noticed the magnet sticks to the paper clips because paper clips are made of the right kind of metal. 2. As you read each sample, discuss this question: How do you think using *because* and *I think because* in these entries helped students think and write like scientists? 3. After reading the notes about the entries, how were your first thoughts about the entries similar to and different from what you noticed after reading the notes?	

3. Writing a Notebook Entry: Scientific Observation

Guiding Questions	Notes
1. What do you think your students could find challenging about this task? 2. How do you think using this organizer would help your students make and write more detailed, accurate, thoughtful observations?	

4. Viewing and Discussing the Plants Video Episode

Guiding Questions	Notes
1. What modeling does the teacher do during these two sessions, first to teach observational skills and scientific thinking, and then to show students how to write scientific observations?	
2. What scaffolding does she provide that students can use during the lessons and as they make entries in their own data table and write observations of their own plant?	
3. How does she use the focus question—"What can we observe about the plant's growth and development over time?"—in both sessions?	
4. How could the modeling and scaffolding help support students who are at very different places on an academic-skills continuum, especially in writing?	

5. Considering Next Steps

Guiding Questions	Notes
1. In which science lessons in the next few weeks will your students need to make and write scientific observations?	
2. In what ways, if any, would you have to adapt the Observations organizer to support your students in these lessons?	
3. In what ways could you use the following questions in your instruction to help students develop their scientific skills and thinking, especially in terms of distinguishing observations from inferences? ❑ What did you actually observe? ❑ What is your evidence? ❑ What did you observe that makes you think that?	

6. Preparing for the Next Meeting

1. In the weeks before the next meeting:
   - ❑ *Read about scientific observations, illustrations, diagrams, and data tables in* Writing in Science *on pages 45–66.*
   - ❑ *Begin modeling how to make scientific observations, illustrations (or diagrams), data tables, and written observations.*
   - ❑ *Continue making entries in your own science notebook as you plan instruction and, if needed, during investigations.*
2. Confirm the date and time of the next meeting: _____.
3. Remember to bring the following to the next meeting:
   - ❑ *A pen and a marker (You will be writing a scientific comparison of the two objects.)*
   - ❑ Writing in Science
   - ❑ Writing in Science in Action
   - ❑ *Teacher's guide for your science unit, or whatever instructional materials you use with your current science unit*
   - ❑ *Your own science notebook*