



Date \_\_\_\_\_

### OPENING

1. Summary of previous learning \_\_\_\_\_
2. Teacher sets clear expectations for student learning \_\_\_\_\_
3. Other \_\_\_\_\_

### WORK PERIOD



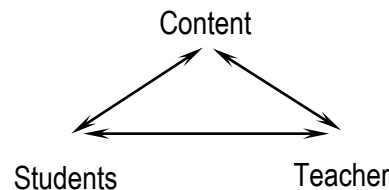
### DAILY CLOSING

1. Opportunities to synthesize learning \_\_\_\_\_
2. Major concepts are highlighted and summarized \_\_\_\_\_

### OVERALL

1. A climate of respect for learning evident \_\_\_\_\_
2. Teacher communicated an understanding of math/science concepts \_\_\_\_\_
3. Indicate the distribution of students' learning procedural knowledge vs conceptual knowledge in this lesson.  
*procedural* ←————→ *conceptual*
4. Was the distribution of procedural and conceptual learning appropriate for most of the lesson? \_\_\_\_\_

### Instructional Interactions



### SETTING THE STAGE FOR LEARNING

1. Connecting to previous learning \_\_\_\_\_
2. Providing context \_\_\_\_\_
3. Using prior knowledge \_\_\_\_\_

### INTELLECTUAL RIGOR OF STUDENT ENGAGEMENT WITH CONTENT

4. Concepts Are Developed:
  - A. *What are students expected to do with content?*
    - a. Students challenge ideas of other students or teacher \_\_\_\_\_
    - b. Students carry out investigations independently \_\_\_\_\_
    - c. Students confident in their content knowledge \_\_\_\_\_
    - d. Students present and discuss multiple solutions to problems \_\_\_\_\_
    - e. Students ask conceptual questions \_\_\_\_\_
  - B. *How does teacher support student engagement with content?*
    - a. Encourages students to find alternate ways of thinking (including the use of technology) about content \_\_\_\_\_
    - b. Waiting time is appropriate to needs \_\_\_\_\_
    - c. Teacher identifies and clarifies concepts/misconceptions \_\_\_\_\_
    - d. Paraphrases for understanding \_\_\_\_\_
5. Cognitive Demands: *At what level of thinking are students engaged with content?*
  - a. Students memorize topics in content \_\_\_\_\_
  - b. Students perform procedures with content \_\_\_\_\_
  - c. Students communicate understanding of topics in content \_\_\_\_\_
  - d. Students make connections, apply concepts to solve problems, and justify answers \_\_\_\_\_
  - e. Students generalize, analyze, make conjectures, create new questions with content \_\_\_\_\_

6. Real Time Assessment of Learning for Understanding: *How is the teacher assessing student learning?*
  - a. Uses different levels of cognitive demands \_\_\_\_\_
  - b. Uses effective questioning strategies \_\_\_\_\_
  - c. Teacher walks around classroom, confers with students, reviews student work, and checks for understanding \_\_\_\_\_
  - d. Grounds questions and conversations in student work \_\_\_\_\_

### CULTURE FOR TEACHING AND LEARNING

7. Roles and Interaction: *How does the organization and interaction in the classroom, e.g. use of student groups, support student learning?*  
 Give evidence/examples \_\_\_\_\_
8. Classroom Discourse: *Who is talking?*
  - a. Clarifying content \_\_\_\_\_
  - b. Asking questions \_\_\_\_\_
  - c. Giving answers \_\_\_\_\_
  - d. Justifying answers \_\_\_\_\_
  - e. Paraphrasing for understanding \_\_\_\_\_
  - f. Challenging answers \_\_\_\_\_
9. Collegial and Respectful Learning Community: *How is every student given the opportunity to learn?*
  - a. Students encouraged to ask questions, participate in discourse \_\_\_\_\_
  - b. Interactions are mostly teacher to students \_\_\_\_\_
  - c. Interactions are mostly students to teacher \_\_\_\_\_
  - d. Student to student dialogue and discussion encouraged \_\_\_\_\_

### POINTS FOR DISCUSSION

\_\_\_\_\_  
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