PEP Classroom Observation Protocol

Project # _____ District _____ School _____

Teacher _____ Grade Level (K-8)/Course (HS) _____

Subject area: ☐ mathematics ☐ science **Lesson Topic _____**

Observer _____ Date _____ Duration of observation (min.) _____

Portion of the class period observed: ☐ All or most ☐ Over half ☐ Less than half

1. Is the lesson topic connected to the content focus of the PEP? ☐ Yes ☐ No

2. Is the lesson from instructional materials received from or emphasized by the PEP? ☐ Yes ☐ No ☐ Not Applicable

3. Role of manipulatives in the lesson (mark all that apply)
- ☐ Demonstrate or confirm known concepts/procedures
- ☐ Explore ideas, test conjectures, look for patterns
- ☐ Not used in this lesson during the time observed

4. Role of calculators in the lesson (mark all that apply)
- ☐ Demonstrate or confirm known concepts/procedures
- ☐ Explore ideas, test conjectures, look for patterns
- ☐ Not used in this lesson during the time observed

During the lesson, take notes describing noteworthy aspects of the lesson and then complete this portion of the instrument. Each of the items 5-14 should be rated 'globally'; the descriptors are possible indicators, not a required 'check-off' list.

	Not Observed				Characterizes the Lesson
5. This lesson encouraged students to seek and value various modes of investigation or problem solving. (Focus: Habits of Mind)	N/O	1	2	3	4

Teacher:
- Presented open-ended questions
- Encouraged discussion of alternative explanations
- Presented inquiry opportunities for students
- Provided alternative learning strategies

Students:
- Discussed problem-solving strategies
- Posed questions and relevant means for investigating
- Shared ideas about investigations

6. Teacher encouraged students to be reflective about their learning. (Focus: Metacognition – students' thinking about their own thinking)	N/O	1	2	3	4

Teacher:
- Encouraged students to explain their understanding of concepts
- Encouraged students to explain in own words both what and how they learned
- Routinely asked for student input and questions

Students:
- Discussed what they understood from the class and how they learned it
- Identified anything unclear to them
- Reflected on and evaluated their own progress toward understanding

7. Interactions reflected collaborative working relationships and productive discourse among students and between teacher/instructor and students. (Focus: Student discourse and collaboration)	N/O	1	2	3	4

Teacher:
- Organized students for group work
- Interacted with small groups
- Provided clear outcomes for group

Students:
- Worked collaboratively or cooperatively to accomplish work relevant to task
- Exchanged ideas related to lesson with peers and teacher

8. Intellectual rigor, constructive criticism, and the challenging of ideas were valued. (Focus: Rigorously challenged ideas)	N/O	1	2	3	4

Teacher:
- Encouraged input and challenged students' ideas
- Was non-judgmental of student opinions
- Solicited alternative explanations

Students:
- Provided evidence-based arguments
- Listened critically to others' explanations
- Discussed/Challenged others' explanations

	Not Observed				Characterizes the Lesson
9. The instructional strategies and activities probed students' existing knowledge and preconceptions. (Focus: Student preconceptions and misconceptions)	N/O	1	2	3	4

Teacher:
Pre-assessed students for their thinking and knowledge
Helped students confront and/or build on their ideas
Refocused lesson based on student ideas to meet needs

Students:
Expressed ideas even when incorrect or different from the ideas of other students
Responded to the ideas of other students

	N/O	1	2	3	4
10. The lesson promoted strongly coherent conceptual understanding in the context of clear learning goals. (Focus: Conceptual thinking)					

Teacher:
Asked higher level questions
Encouraged students to extend concepts and skills
Related integral ideas to broader concepts

Students:
Asked and answered higher level questions
Related subordinate ideas to broader concept

	N/O	1	2	3	4
11. Students were encouraged to generate conjectures, alternative solution strategies, and ways of interpreting evidence. (Focus: Divergent thinking)					

Teacher:
Accepted multiple responses to problem-solving situations
Provided example evidence for student interpretation
Encouraged students to challenge the text as well as each other

Students:
Generated conjectures and alternate interpretations
Critiqued alternate solution strategies of teacher and peers

	N/O	1	2	3	4
12. Appropriate connections were made between content and other curricular areas. (Focus: Interdisciplinary connections)					

Teacher:
Integrated content with other curricular areas
Applied content to real-world situations

Students:
Made connections with other content areas
Made connections between content and personal life

	N/O	1	2	3	4
13. The teacher/instructor had a solid grasp of the subject matter content and how to teach it. (Focus: Pedagogical content knowledge)					

Teacher:
Presented information that was accurate and appropriate to student cognitive level
Selected strategies that made content understandable to students
Was able to field student questions in a way that encouraged more questions
Recognized students' ideas even when vaguely articulated

Students:
Responded to instruction with ideas relevant to target content
Appeared to be engaged with lesson content

	N/O	1	2	3	4
14. The teacher/instructor used a variety of means to represent concepts. (Focus: Multiple representations of concepts)					

Teacher:
Used multiple methods, strategies and teaching styles to explain a concept
Used various materials to foster student understanding (models, drawings, graphs, concrete materials, manipulatives, etc.)

CAPSULE DESCRIPTION

15. For each pair of statements below, mark the one that best describes what you observed in the lesson

☐ Teacher-as-facilitator ☐ Active student role in lesson ☐ Emphasis on developing conceptual understanding
☐ Teacher-as-expert ☐ Passive student role in lesson ☐ Emphasis on learning factual knowledge, skills/procedures

16. Overall, how well did this lesson exemplify effective use of an inquiry approach to mathematics/science instruction?

☐ Not at all ☐ Beginning ☐ Progressing ☐ Proficient ☐ Accomplished

(adapted from Oregon Teacher Observation Protocol, L. Flick, P. Morrell, C. Wainwright – 2004)