

**Teaching Observation Protocol
Maine Center for Research in STEM Education**

Note: Sections I, II, IV, V, and VI in this protocol are taken from the Reformed Teaching Observation Protocol (RTO) by Daiyo Sawada, Michael Piburn, Kathleen Falconer, Jeff Turley, Russell Benford, and Irene Bloom, then with the Arizona Collaborative for Excellence in the Preparation of Teachers, Arizona State University. Other portions are adapted from the Classroom Observation Handbook by Frances Lawrenz, Douglas Huffman, Karen Appeldoorn, and Tao Sun from the College of Education and Human Development at the University of Minnesota and were developed with funding from the National Science Foundation.

BACKGROUND INFORMATION

Name of Teacher _____

Announced Observation _____
(yes, no or explain)

Location of class _____
(district, school, room)

Years of Teaching _____ Teaching Certification _____
(K-8 or 7-12)

Subject Observed _____ Grade Level _____

Observer _____ Date of Observation _____

Start time _____ End time _____

CONTEXTUAL BACKGROUND AND ACTIVITIES

In the space provided below, please give a brief description of the lesson observed, the classroom setting in which the lesson took place (space, seating arrangements, etc.), and any relevant details about the students (number, gender, ethnicity) and teacher that you think are important. Use diagrams if they seem appropriate.

LESSON DESIGN AND IMPLEMENTATION

	Never Occurred			Very Descriptive	
	0	1	2	3	4
1) The instructional strategies and activities respected students' prior knowledge and the preconceptions inherent therein.	0	1	2	3	4
2) The lesson was designed to engage students as members of a learning community.	0	1	2	3	4
3) In this lesson, student exploration preceded formal presentation.	0	1	2	3	4
4) This lesson encouraged students to seek and value alternative modes of investigation or of problem solving.	0	1	2	3	4
5) The focus and direction of the lesson was often determined by ideas originating with students.	0	1	2	3	4

DESCRIPTION OF EVENTS

Time	Description of Events

Codes for Description of Events

Please fill in the instructional strategies (*not* the instructor's actual activities, in case they are correcting papers or something non-instructional), student engagement, and cognitive activity used in each segment of this class. There may be one or more strategies used in each category during each segment. For example, SGD, HOA, and TIS often occur together, but SGD and L do not.

Type of Instruction:

L	lecture/presentation	CL	cooperative learning (roles)
PM	problem modeling	LC	learning center/station
SP	student presentation (formal)	TIS	teacher/faculty interacting w/ student
LWD	lecture with discussion	UT	utilizing digital educational media and/or technology
D	demonstration	A	assessment
CD	class discussion	AD	administrative tasks
WW	writing work (if in groups, add SGD)	OOO	out-of-class experience
RSW	reading seat work (if in groups, add SGD)	I	interruption
HOA	hands-on activity/materials	OTH	Other: please describe
SGD	small group discussion (pairs count)		

Student Engagement:

HE	high engagement, 80% or more of the students engaged
ME	mixed engagement
LE	low engagement, 80% or more of the students off-task

Cognitive Activity:

- 1 **Receipt of Knowledge** (lectures, worksheets, questions, observing, homework)
- 2 **Application of Procedural Knowledge** (skill building, performance)
- 3 **Knowledge Representation** (organizing, describing, categorizing)
- 4 **Knowledge Construction** (higher order thinking, generating, inventing, solving problems, revising, etc.)
- 0 **Other** (e.g., classroom disruption)

CONTENT

Propositional knowledge

	Never Occurred			Very Descriptive		
6) The lesson involved fundamental concepts of the subject.	0	1	2	3	4	
7) The lesson promoted strongly coherent conceptual understanding.	0	1	2	3	4	
8) The teacher had a solid grasp of the subject matter content inherent in the lesson.	0	1	2	3	4	
9) Elements of abstraction (i.e., symbolic representations, theory building) were encouraged when it was important to do so.	0	1	2	3	4	
10) Connections with other content disciplines and/or real world phenomena were explored and valued.	0	1	2	3	4	

Procedural Knowledge

11) Students used a variety of means (models, drawings, graphs, concrete materials, manipulatives, etc.) to represent phenomena.	0	1	2	3	4
12) Students made predictions, estimations and/or hypotheses and devised means for testing them.	0	1	2	3	4
13) Students were actively engaged in thought-provoking activity that often involved the critical assessment of procedures.	0	1	2	3	4
14) Students were reflective about their learning.	0	1	2	3	4
15) Intellectual rigor, constructive criticism, and the challenging of ideas were valued.	0	1	2	3	4

CLASSROOM CULTURE

Communicative Interactions

	Never Occurred			Very Descriptive		
16) Students were involved in the communication of their ideas to others using a variety of means and media.	0	1	2	3	4	
17) The teacher's questions triggered divergent modes of thinking.	0	1	2	3	4	
18) There was a high proportion of student talk and a significant amount of it occurred between and among students.	0	1	2	3	4	
19) Student questions and comments often determined the focus and direction of classroom discourse.	0	1	2	3	4	
20) There was a climate of respect for what others had to say.	0	1	2	3	4	

Student/Teacher Relationships

21) Active participation of students was encouraged and valued.	0	1	2	3	4
22) Students were encouraged to generate conjectures, alternative solution strategies, and ways of interpreting evidence.	0	1	2	3	4
23) In general the teacher was patient with students.	0	1	2	3	4
24) The teacher acted as a resource person, working to support and enhance student investigations.	0	1	2	3	4
25) The metaphor "teacher as listener" was very characteristic of this classroom.	0	1	2	3	4

CAPSULE DESCRIPTION OF THE QUALITY OF THE LESSON AND ADDITIONAL COMMENTS

Any other comments:

- Level 1: Ineffective Instruction
 - Passive “Learning
 - Activity for Activity’s Sake
- Level 2: Elements of Effective Instruction
- Level 3: Beginning stages of Effective Instruction
(Select one below.)

☒ Low 3 ☒ Solid 3 ☒ High 3
- Level 4: Accomplished, Effective Instruction
- Level 5: Exemplary Instruction

Please provide your rationale for the capsule rating.