EQUIP
(Electronic Quality of Inquiry Protocol)

Complete Sections I before and during observation, Sections II and III during the observation, and Sections IV-VII immediately after the observation. If a construct in Sections IV-VI absolutely cannot be coded based on the observation, then it is to be left blank.

Observation date: _____ Time start:_____ Time end: _____ Observer: _____

School: _____ District: _____ Teacher: _____

Course: _____

I. Descriptive Information

A. Teacher Descriptive Information:

1. Teacher gender _____ Male (M), Female (F)

2. Teacher ethnicity _____ Caucasian (C), African-American (A), Latino (L), Other (O)

3. Grade level(s) observed _____ 4. Subject/Course observed _____

5. Highest degree _____ 6. Number of years experience:_____ 7. Number of years teaching this content _____

B. Student/Class Descriptive Information

1.   Number of students in class: _____

2.   Gender distribution: _____ Males _____Females

3.   Ethnicity distribution _____Caucasian (C) _____ African-American (A) _____ Latino (L) _____Other

C. Lesson Descriptive Information

1. Is the lesson an exemplar that follows the 4E x 2 Instructional Model? (PDI exemplar, non-PDI exemplar, non-exemplar)

2. Working title for lesson:

3. Objectives/Purpose of lesson: Inferred (I), Explicit (E) ___:

4. Standards addressed: State (S), District (D), None Explicit (N) ___ :

II. Time Usage Analysis						
Time	Activity Codes	Organization Codes	Student Attention to Lesson Codes	Cognitive Codes	Inquiry Instruction Component Codes	Assessment Codes
0-5						
5-10						
10-15						
15-20						
20-25						
25-30						
30-35						
35-40						
40-45						
45-50						
50-55						
55-60						
60-65						
65-70						
70-75						
75-80						
80-85						
85-90						

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Activity Codes—facilitated by teacher
0. **Non-instructional time**—administrative tasks, handing back/collecting papers, general announcements, time away from instruction
1. **Pre-inquiry**—teacher-centered, passive students, prescriptive, didactic discourse pattern, no inquiry attempted
2. **Developing inquiry**—teacher-centered with some active engagement of students, prescriptive though not entirely, mostly didactic with some open-ended discussions, teacher dominates the explain, teacher seen as both giver of knowledge and as a facilitator, beginning of class warm-ups
3. **Proficient inquiry**—largely student-centered, focus on students as active learners, inquiries are guided and include student input, discourse includes discussions that emphasize process as much as product, teacher facilitates learning and students active in all stages, including the explain phase
4. **Exemplary inquiry**—student-centered, students active in constructing understanding of content, rich teacher-student and student-student dialogue, teacher facilitates learning in effective ways to encourage student learning and conceptual development, assumptions and misconceptions are challenged by students and teacher

Organization Codes—led by teacher
W   Whole class
S   Small group
I   Individual work

Student Attention to Lesson Code—displayed by students
L   **Low attention**, 20% or fewer attending to the lesson. Most students are off-task – heads on desks, staring out of the window, chatting with neighbors, etc.
M   **Medium attention**, between 20-80% of students are attending to the lesson.
H   **High attention**, 80% or more of the students are attending to the lesson. Most students are taking notes or looking at the teacher during lecture, writing on the worksheet, most students are volunteering ideas during a discussion, most students are engaged in small group discussions even without the presence of the teacher.

Cognitive Code—displayed by students
0. Other-e.g. classroom disruption, non-instructional portion of lesson, administrative activity
1. Receipt of knowledge
2. Lower order (recall, remember, understand) and/or activities focused on completion exercises, computation
3. Apply (demonstrate, modify, compare) and/or activities focused on problem solving
4. Analyze/Evaluate (evidence, verify, analyze, justify, interpret)
5. Create (combine, construct, develop, formulate)

Inquiry Instructional Component Code—facilitated by teacher
0. **Non-inquiry**: activities with the purpose of skill automation; rote memorization of facts; drill and practice; checking answers on homework, quizzes, or classwork with little or no explanation
1. **Engage**: typically situated at the beginning of the lesson; assessing student prior knowledge and misconceptions; stimulating student interest
2. **Explore**: students investigate a new idea or concept
3. **Explain**: teacher or students making sense of an idea or concept
    Extend: [Extend is important but is not coded as such because it typically is a new Engage, Explore, or Explain]

Assessment Code—facilitated by teacher
0. **No assessment observed**
1. **Monitoring** (circulating around the room, probing for understanding, checking student progress, commenting as appropriate)
2. **Formative assessment** (assessing student progress, instruction modified to align with student ability) or **Diagnostic assessment** (checking for prior knowledge, misconceptions, abilities)
3. **Summative assessment** (assessing student learning, evaluative and not informing next instructional step)

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III. Lesson Descriptive Details		
Time (mins into class)	Classroom Notes of Observation	Comments

IV. Instructional Factors				
Construct Measured	*Pre-Inquiry (Level 1)*	*Developing Inquiry (2)*	*Proficient Inquiry (3)*	*Exemplary Inquiry (4)*
I1. Instructional Strategies	Teacher predominantly lectured to cover content.	Teacher **frequently lectured** and/or used demonstrations to explain content. Activities were **verification only**.	Teacher **occasionally lectured**, but **students were engaged in activities** that helped develop conceptual understanding.	Teacher occasionally lectured, but students were engaged in investigations that **promoted strong conceptual understanding**.
I2. Order of Instruction	Teacher explained concepts. Students either did not explore concepts or did so only after explanation.	Teacher asked **students to explore concept before receiving explanation**. Teacher explained.	Teacher asked students to **explore before explanation**. **Teacher and students explained**.	Teacher asked students to explore concept before explanation occurred. Though perhaps prompted by the teacher, **students provided the explanation**.
I3. Teacher Role	Teacher was center of lesson; rarely acted as facilitator.	**Teacher was center** of lesson; **occasionally** acted as f**acilitator**.	Teacher **frequently** acted as facilitator.	Teacher **consistently and effectively** acted as a facilitator.
I4. Student Role	Students were consistently passive as learners (taking notes, practicing on their own).	**Students were active to a small extent** as learners (highly engaged for very brief moments or to a small extent throughout lesson).	**Students were active as learners** (involved in discussions, investigations, or activities, but not consistently and clearly focused).	Students were **consistently and effectively active as learners** (highly engaged at multiple points during lesson and clearly focused on the task).
I5. Knowledge Acquisition	Student learning focused solely on mastery of facts, information, and/or rote processes.	Student learning focused on **mastery of facts** and process skills without much focus on understanding of content.	Student learning required **application of concepts** and process skills in new situations.	Student learning required **depth of understanding** to be demonstrated relating to content and process skills.

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V. Discourse Factors				
Construct Measured	*Pre-Inquiry (Level 1)*	*Developing Inquiry (2)*	*Proficient Inquiry (3)*	*Exemplary Inquiry (4)*
D1. Questioning Level	Questioning rarely challenged students above the remembering level.	Questioning rarely challenged students above the **understanding level**.	Questioning challenged students **up to application or analysis levels**.	Questioning challenged students at various levels, **including at the analysis level or higher; level was varied to scaffold learning.**
D2. Complexity of Questions	Questions focused on one correct answer; typically short answer responses.	Questions focused **mostly on one correct answer;** some open response opportunities.	Questions **challenged students to explain, reason, and/or justify**.	Questions required students to explain, reason, and/or justify. **Students were expected to critique others' responses**.
D3. Questioning Ecology	Teacher lectured or engaged students in oral questioning that did not lead to discussion.	Teacher occasionally **attempted to engage students in discussions** or investigations but was not successful.	Teacher **successfully engaged students** in open-ended questions, discussions, and/or investigations.	Teacher **consistently and effectively engaged students** in open-ended questions, discussions, investigations, and/or reflections.
D4. Communication Pattern	Communication was controlled and directed by teacher and followed a didactic pattern.	Communication was **typically controlled and directed by teacher** with occasional input from other students; mostly didactic pattern.	**Communication was often conversational** with some student questions guiding the discussion.	Communication was **consistently conversational with student questions often guiding the discussion**.
D5. Classroom Interactions	Teacher accepted answers, correcting when necessary, but rarely followed-up with further probing.	Teacher or another student **occasionally followed-up student response** with further low-level probe.	Teacher or another student **often followed-up response** with engaging probe that required student to **justify reasoning or evidence**.	Teacher **consistently and effectively facilitated rich classroom dialogue** where evidence, assumptions, and reasoning were challenged by teacher or other students.

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VI. *Assessment Factors*				
Construct Measured	*Pre-Inquiry (Level 1)*	*Developing Inquiry (2)*	*Proficient Inquiry (3)*	*Exemplary Inquiry (4)*
A1. Prior Knowledge	Teacher did not assess student prior knowledge.	Teacher **assessed student prior knowledge but did not modify instruction** based on this knowledge.	Teacher assessed student prior knowledge and then **partially modified instruction** based on this knowledge.	Teacher assessed student prior knowledge and then **modified instruction** based on this knowledge.
A2. Conceptual Development	Teacher encouraged learning by memorization and repetition.	Teacher encouraged **product- or answer-focused** learning activities that **lacked critical thinking.**	Teacher encouraged **process-focused** learning activities that **required critical thinking**.	Teacher encouraged process-focused learning activities that involved **critical thinking that connected learning with other concepts**.
A3. Student Reflection	Teacher did not explicitly encourage students to reflect on their own learning.	Teacher explicitly encouraged students to **reflect** on their learning but only at a minimal **knowledge level**.	Teacher explicitly encouraged students to **reflect** on their learning at an **understanding level**.	Teacher consistently encouraged students to reflect on their learning at multiple times throughout the lesson; **encouraged students to think at higher levels**.
A4. Assessment Type	Formal and informal assessments measured only factual, discrete knowledge.	Formal and informal assessments **measured mostly factual, discrete knowledge**.	Formal and informal assessments **used both factual, discrete knowledge and authentic measures**.	Formal and informal assessment methods **consistently and effectively used authentic measures**.
A5. Role of Assessing	Teacher solicited predetermined answers from students requiring little explanation or justification.	Teacher **solicited information from students to assess understanding**.	Teacher solicited explanations from students to **assess understanding and then adjusted instruction accordingly**.	Teacher frequently and effectively assessed student understanding and adjusted instruction accordingly; **challenged evidence and claims made; encouraged curiosity and openness**.

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VII. Curriculum Factors				
Construct Measured	*Pre-Inquiry (Level 1)*	*Developing Inquiry (2)*	*Proficient Inquiry (3)*	*Exemplary Inquiry (4)*
C1. Content Depth	Lesson provided only superficial coverage of content.	Lesson provided **some depth** of content but with **no connections made to the big picture.**	Lesson provided depth of content with **some significant connection** to the big picture.	Lesson provided depth of content with **significant, clear, and explicit connections** made to the big picture.
C2. Learner Centrality	Lesson did not engage learner in activities or investigations.	Lesson provided **prescribed activities** with anticipated results.	Lesson allowed for **some flexibility during investigation** for student-designed exploration.	Lesson provided **flexibility for students to design and carry out** their own investigations.
C3. Integration of Content and Investigation	Lesson either content-focused or activity-focused but not both.	Lesson provided poor integration of content with activity or investigation.	Lesson **incorporated student investigation that linked well with content**.	Lesson **seamlessly integrated the content and the student investigation**.
C4. Organizing & Recording Information	Students organized and recorded information in prescriptive ways.	**Students had only minor input as to how to organize and record information**.	Students regularly organized and recorded information in **non-prescriptive ways**.	Students organized and recorded information in **non-prescriptive** ways that allowed them to **effectively communicate their learning.**

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VIII. Summative Overviews*		*Comprehensive Score** *
Summative view of Instruction		
Summative view of Discourse		
Summative view of Assessment		
Summative view of Curriculum		
Overall view of Lesson		

*Provide brief descriptive comments to justify score.

**Score for each component should be an integer from 1-4 that corresponds with the appropriate level of inquiry. Scores should reflect the essence of the lesson relative to that component, so they need not be an exact average of all sub-scores in a category.

Marshall, J. C., Horton, B., Smart, J., & Llewellyn, D. (2008). *EQUIP: Electronic Quality of Inquiry Protocol*: Retrieved from Clemson University's Inquiry in Motion Institute, www.clemson.edu/iim.

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