**Rubric 7: Engaging Students in Learning**

How does the candidate actively engage students in developing understanding of mathematical concepts?

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<th>Level 4</th>
<th>Level 5</th>
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<tbody>
<tr>
<td>In the clip(s), students are participating in tasks that are vaguely or superficially related to the central focus.</td>
<td>In the clip(s), students are participating in learning tasks focusing primarily on mathematical skills or procedures with little attention to developing understanding of mathematical concepts.</td>
<td>In the clip(s), students are engaged in learning tasks that address understandings of mathematical concepts. Candidate links prior academic learning to new learning.</td>
<td>In the clip(s), students are engaged in learning tasks that develop understandings of mathematical concepts. Candidate links both prior academic learning and personal, cultural, or community assets to new learning.</td>
<td>In the clip(s), students are engaged in learning tasks that deepen and extend their understandings of mathematical concepts. Candidate prompts students to link prior academic learning and personal, cultural, or community assets to new learning.</td>
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**Level 3**

*Evidence that demonstrates performance at Level 3:*
- The clip(s) show that the students are engaged in learning tasks that address understandings of mathematical concepts. Although these content understandings are evident in conversations, they are addressed at a cursory level.
- The clips show the candidate making connections to students’ prior academic learning to help them develop the new content or skills.

**Below 3**

*Evidence that demonstrates performance below 3:*
- Students are participating in tasks that focus primarily on mathematical skills or procedures with little attention to developing understandings of mathematical concepts.
- The structure of the learning task or the way in which it is implemented constrains student development of conceptual understanding.
- The candidate may refer to students’ learning from prior units, but the references are indirect or unclear and do not facilitate new learning.

**Above 3**

*Evidence that demonstrates performance above Level 3:*
- The learning tasks as seen in the clip(s) are structured to engage students to develop understandings of mathematical concepts.
- Connections with both students’ prior academic learning and personal/cultural/community experiences – in and out of school – support the new learning.
- The learning tasks in the clip(s) include structures or scaffolding that promote the development of understandings of mathematical concepts. Students must interact with the content in ways that are likely to either extend initial understandings or surface misunderstandings that the candidate can then address. In addition, the candidate draws upon not only prior academic learning, but also students’ knowledge and experience from outside school to develop new learning.
**Rubric 8: Deepening Student Learning**

How does the candidate elicit responses to promote thinking and develop understanding of mathematical concepts?

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<td>The candidate does most of the talking and students provide few responses.</td>
<td>Candidate primarily asks surface-level questions and evaluates student responses as correct or incorrect.</td>
<td>Candidate elicits student responses related to reasoning/problem solving to develop understanding of a mathematical concept.</td>
<td>Candidate elicits and builds on students’ reasoning/problem solving to explicitly portray, extend, or clarify a mathematical concept.</td>
<td>Level 4 plus: Candidate facilitates interactions among students to develop understandings of a mathematical concept.</td>
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**Evidence that demonstrates performance at Level 3:**
- The candidate prompts students to offer responses related to mathematical reasoning/problem solving to develop understanding of a mathematical concept, e.g., by using “how” and “why” questions. Some instruction may be characterized by initial questions focusing on facts to lay a basis for later higher-order questions in the clip(s).

**Evidence that demonstrates performance below Level 3:**
- In the clip(s), classroom interactions provide students with limited or no opportunities to think and learn.
- The candidate asks questions that elicit right/wrong or yes/no answers and do little to encourage students to think about the content being taught.

**Evidence that demonstrates performance above Level 3:**
- The candidate asks higher-order questions
- In the clip(s), the candidate is eliciting and building on student ideas and thinking in relation to mathematical reasoning/problem solving to develop students’ understanding of a mathematical concept.
- The candidate elicits and follows up on students’ responses in ways that are related to mathematical reasoning/problem solving.
- Examples of “building on student responses” include: referring to a previous student response in developing a point or an argument; calling on the student to elaborate on what s/he said; posing questions to guide a student discussion; soliciting student examples and asking another student to identify what they have in common; asking a student to summarize a lengthy discussion or rambling explanation; and asking another student to respond to a student comment or answer a question posed by a student to move instruction forward.

**Aim here!**
**Rubric 9: Subject-Specific Pedagogy: Using Representations**

How does the candidate use representations to develop students’ mathematical concepts?

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<td>The candidate stays focused on facts or procedures with little or no attention to mathematical concepts. <strong>OR</strong> Materials used in the clip(s) include significant content inaccuracies that will lead to student misunderstandings.</td>
<td>Candidate makes vague or superficial use of representations to help students understand mathematical concepts.</td>
<td>Candidate uses representations in ways that help students understand mathematical concepts.</td>
<td>Candidate uses representations in ways that deepen student understanding of mathematical concepts.</td>
<td>Level 4 plus: Candidate facilitates interactions among students so they develop or apply representations in ways that deepen and extend their understanding of mathematical concepts.</td>
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**Level 3**

**Evidence that demonstrates performance at Level 3:**
- In the clip(s), the candidate guides conversation and/or structures explorations using representations that help students develop understanding of concepts.

**Below 3**

**Evidence that demonstrates performance below 3:**
- In the clip(s), the candidate is not using representations effectively to guide student learning.
- The candidate attempts to use representations to facilitate understanding of concepts and procedures, but the connections between them are not strong enough or clear enough to be effective

**Above 3**

**Evidence that demonstrates performance above Level 3:**
- In the clip(s), the candidate is making strategic choice or use of representations to develop students’ mathematical learning.
- In the clip(s), the candidate poses carefully chosen problems or visual representations to encourage students to think more deeply about concepts and procedures.
- The candidate structures and supports student-student conversations to help them develop or apply their use of representations to deepen and extend their understandings of mathematical concepts.