1. Which lesson or lessons are shown in the video clip(s)? Identify the lesson(s) by lesson plan number.

[Video clip 1 is taken during Lesson 2, where the students are using handheld whiteboards at their tables, interpreting multiplication sentences by modeling their ability to construct arrays. The learning target in Lesson 2 was “interpreting products of whole numbers through arrays”. In this clip, students demonstrate their understanding of the learning target by holding up their whiteboards, showing the progress of creating arrays for various multiplication sentences. Tangible understanding is seen on their whiteboards, however students also answer questions relating to the problems throughout the clip.

Video clip 2 is taken during the beginning of Lesson 3, where students are reviewing what we had learned the two previous lessons. The learning target in Lesson 3 was “to use multiplication within 100 to solve word problems in situations involving equal groups and arrays”. The review session that you view in video clip 2 is the introduction before reading the book, “Amanda Bean’s Amazing Dream”, a whimsical book that applies multiplication to real life scenarios. By establishing their prior knowledge before reading the book, they are reminded of what to look for throughout the lesson.]

2. Promoting a Positive Learning Environment

Refer to scenes in the video clip(s) where you provided a positive learning environment.

a. How did you demonstrate mutual respect for, rapport with, and responsiveness to students with varied needs and backgrounds, and challenge students to engage in learning?

[In video clip 1, I demonstrated mutual respect for my students by working out the problems with them. Although the video position shows the view facing the students, I participated by writing the problem on the board with my students. Throughout my lessons, I challenged students to engage in learning. In video clip 1 at 1:39, I encouraged a student by publicly noticing the extra work he put in by not only including the array, but the multiplication sentence as well. This affirmed the student who already had put in the work, as well as motivated other students to try a little harder. Later in video clip 1 at 5:48, I asked the students to hold up their whiteboards showing their work on the problem. You will notice that many more of the students wrote down the multiplication sentence in addition to the array based on my feedback to the student on the previous problem. The fact that the students were responsive to my feedback showed me that they were engaged in the learning process.

In video clip 1 at 1:48, I mixed up a couple of my words, accidently asking what 3x15 was instead of 3x5. Rather than getting frustrated or embarrassed, I laughed at myself, happily accepting my students corrections. This demonstrated rapport with my students because we were comfortable enough to make mistakes and help each other out when learning the new concept. This created a positive learning environment for the students because it showed them that in our classroom, making mistakes is okay.

In video clip 1 at 0:58, I talked to the students about the neatness of their arrays. This helped to create a positive learning environment because it put importance on the work that the...
students were doing. By learning to value the neatness of their work, the students were encouraged to take pride in their work.

In video clip 1 at 3:25 and throughout all of my lessons, I checked in with my student’s understanding by asking them to indicate that they understood by showing me thumbs up or thumbs down. Thumbs up meaning that they understood and thumbs down meaning they needed clarification. This allowed students to quickly communicate their progress to me without having to take the time to ask each student. This showed that I cared about the individual progress of students with varied learning needs and backgrounds, providing students with a positive learning environment.

In both of my video clips, I demonstrated rapport and respect to my students by using their names when praising them and when asking them to correct their behavior. By expecting a certain level of behavior and respect from them, I showed them that I thought they were capable of great behavior.

3. Engaging Students in Learning

Refer to examples from the video clip(s) in your responses to the prompts.

a. Describe your strategies to elicit student expression of their understanding of the learning target(s) and why they are important. (Optional, if evidence is provided in the student self-reflections in the Assessment task; evidence may also be provided by responding to this prompt.)

[On of my main strategies to elicit student expression of their understand of the learning targets and why they are important was through observing student responses to questions. For example, in video clip 2 at 2:15, I ask for a student to tell me what they had learned about equal groups. As a student begins to share, I am making eye contact with him, smiling, and nodding to encourage him. By showing this student that I was interested in what he had to say, hopefully other students were encouraged to share.

In video clip 2 at 1:04 students are answering the question, “What did we learn about this week?” A student says, vocabulary. I asked him a follow up question, inquiring what kind of vocabulary we learned about. He was able to respond with “multiplication”. Asking interactive questions like this kept students engaged and focused on the lesson.

In all three of my lessons, I used an exit slip to assess student understanding of the learning target. For example, on the exit slip for lesson 2, students were asked to draw an array and identify the multiplication sentence and repeated addition sentence that it represented. I also used a strategy of having students respond in their own words what they learned about multiplication. The responses provided me with feedback of whether or not students felt they understood the learning target and what they felt they learned from my lesson.]

b. Explain how your instruction engaged students in developing understanding of mathematical concepts.

[My instruction engaged students in developing an understanding of mathematical concepts by helping them recognize and utilize the different strategies of understanding multiplication. In the language use video from 0:15-1:00, I asked the students questions. The questions were asked to keep the students engaged, thinking about the new content. For example, “What is the name of the numbers you multiply to find the product?” Students show their eagerness and excitement by raising their hands in hopes that they are called to share their response to my questions. By asking clarifying and engaging questions, students remain engaged with the learning. In the language use video at 3:42 I asked, “How do we know how many columns I need to make?” This question was designed to be easily interpretable for the students from my previous question, however by answering it correctly, students demonstrated that they were engaged and following along with the new information.]
In video clip 2 at 0:15 I ask the students to share with their shoulder partners what they have learned about multiplication. This, for the students who participated, was an engaging instructional strategy. Students used their own words to describe to a friend what they had learned. This reiteration of the information helps imprint the concepts on their developing minds. Later, in video clip 2 at 0:48, four students were asked to share what they had discussed with their shoulder partners with the class. The confidence the students developed from sharing with a partner allowed them to present their responses with ease.

c. Describe how your instruction linked students’ prior academic learning and personal, cultural, and community assets with new learning.

[In all of the video clips, you will note that my instruction strongly emphasizes student prior academic learning of multiplication. In the language use video from 0:15-1:40, we are reviewing what was taught the previous day as well as the prior knowledge students had about multiplication. Because multiplication was not something they had been formally introduced to at school prior to my lessons, the prior knowledge I was building on was knowledge of multiplication learned at home or in programs other than school. Students in this class range from having highly involved parents who help with their math packets every night and volunteer in the classroom, to parents who gain or lose custody on a monthly basis. This inconsistency between personal home lives of my students created a large variety of prior knowledge on this topic. Prior to this lesson they had not deeply analyzed, described, or modeled multiplication. My learning segment pushed students to think about the mathematical concept of multiplication and how they would apply this knowledge to their day-to-day lives. In my lessons I provided students with instruction and learning activities that pushed them to think about the concept of multiplication on a deeper level. This provided students with the opportunity to relate multiplication to their prior mathematical knowledge and their personal interests.]

4. Deepening Student Learning during Instruction
   Refer to examples from the video clip(s) in your explanations.

   a. Explain how you elicited and built on student responses to promote thinking and develop understandings of mathematical concepts.

   [In video clip 1 at 2:58, I asked a student where their repeated addition sentence was. I was looking for 3+3+3+3+3=15, but on his white board I saw 5+5+5=15. He remained confident that his answer, 5+5+5=15, was as correct as 3+3+3+3=15. I was able to use his response as a moment to develop student understanding by showing the rest of the class that either repeated addition sentence is correct (video clip 1 at 3:35). This helped students understand the general concept of repeated addition. You can see three x’s in each of the five columns, but you can also see five x’s in each of the three rows. I was able to build on a student’s response to help the class see that both answers are in fact correct. This student’s response set up an opportunity for future learning. In hindsight, it would have been even more beneficial for me to mention the multiplication property that that concept related to. Nevertheless, it was a moment where an elicited student response developed into a class wide deeper understanding of repeated addition, one of our mathematical concepts.]

   b. Explain how you and the students used representations (manipulatives, models, tools, diagrams, charts) to support students’ understanding and use of mathematical concepts.

   [In video clip 1, I am modeling multiplication sentences on the board using arrays. Likewise, the students are using handheld whiteboards to model the multiplication sentences as well. At 7:46 in video clip 1, the students and I are solving a problem. While they are working on their boards, I am verbalizing the process. Working it out on the board as well as verbalizing the process provided students with multiple opportunities to understand the concept.
In video clip 2, I used our multiplication anchor chart to chart our vocabulary words and multiplication strategies. Rather than bringing a previously created anchor chart, I chose to create the anchor chart with the students. This helps imprint the concepts in their mind as I am writing them on the anchor chart. By correlating each multiplication strategy, it helps students separate the concepts, while still realizing that they all relate to each other.]

5. Analyzing Teaching

Refer to examples from the video clip(s) in your responses to the prompts.

a. What changes would you make to your instruction—for the whole class and/or for students who need greater support or challenge—to better support student learning of the central focus (e.g., missed opportunities)?

Consider the variety of learners in your class who may require different strategies/support (such as students with IEPs or 504 plans, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

[In video clip 1 at 2:36, one student has been asked to share what the repeated addition sentence would be for the problem on the board. She is thinking hard, but in that moment I perceived that she wasn’t going to come up with the answer. I called on another student to help her out, and when watching this video clip, I noticed that she did in fact come up with the correct answer seconds after I called on a different student. If I could go back to that moment, I would have waited just a few more seconds for her to come up with the answer. By calling on another student, I may have made her feel that I didn’t think she was capable of knowing the answer. I want to encourage my students learning and I don’t think that moment of instruction shows that.

In video clip 1 overall, I needed to have asked deeper questions that related to the learning target. Watching the clip back, I noticed multiple times where I missed the opportunity to help my students more deeply understand the content. In video clip 1 at 9:14, rather than giving a student the opportunity to answer and enhance their learning, I presented a question and answered it myself. Instances like this took away from the effectiveness of the instruction.

In video clip 2 at 1:41, students are asked to share with their shoulder partner their understanding of equal groups. I noticed that this instruction method was not as effective as I had planned for it to be. Students with an IEP or 504 plan seemed to struggle with this. The overall noise level may have contributed to the ineffectiveness, as well as the fact that they didn’t find a partner to share with. In the future, I would restructure this method because I do think that, when executed correctly, it can be effective. Pre-assigning partners by having assigned seats and enforcing a true level one (whisper) voice are two modifications that may help. Having the IEP, 504 plan, and underperforming students’ sit closer to the front would also have helped.

In both of the video clips provided I missed the opportunity to link instruction to prior knowledge of personal, cultural, and community assets with new learning. While I demonstrated rapport with my students by knowing their names and being able to laugh with them, I could have structured the lessons with a stronger focus on their personal assets. In the future, I would take better note of student cultures and communities and plan a lesson that enabled them to use their strengths.

In video clip 1, I missed an opportunity to effectively use technology. Though I am not pictured, when writing on the board, my back is to the students. This unfortunately led me to miss things going on in the classroom, whether it was behavior or students with questions. Rather than writing on the whiteboard, in the future I would use the classroom iPad to project the information onto the board using the classroom overhead projector. ]
b. Why do you think these changes would improve student learning? Support your explanation with evidence of student learning AND principles from theory and/or research.

[I think these changes would improve student learning because they provide students with more opportunities to develop an understanding of the central focus of each learning segment. In addition, the changes listed above would promote meaningful learning opportunities. This would follow Bruner's (1976) theory of scaffolding, in the way that these changes would provide students with more support before they began each learning task. In following Dewey's (1938/1998) theory of understanding prior knowledge I would change my instruction to incorporate questions that asked students to relate their prior knowledge to the learning target. In my analysis that asking questions sought deeper understanding I realize that these changes would have provided me a better understanding of how well students understood objectives in each lesson. In addition, this type of questioning would follow Dewey’s theory of prior knowledge in the way that it gives students the opportunity to formulate a better understanding themselves.]