*You will be teaching a mathematics lesson on **operations and algebraic thinking** to a student with exceptional needs. Using your knowledge of students with exceptional needs, prepare a response in which you:*

- *Briefly describe the student you will be teaching (e.g., age/grade level/developmental level, exceptionality, strengths/needs).*
- *Describe **one** important concept or skill related to operations and algebraic thinkingt you would include in this lesson.*
- *Describe **two** instructional activities and **two** instructional resources, including any applicable technological resources, you would use to teach this concept or skill.*
- *Explain how these activities and resources would be particularly effective for the student you describe and how you would measure the student's success.*

The student I am teaching is an 8 year old first grader identified under the category of an Other Health impairment. She is currently repeating first grade, she receives speech and occupational therapy. Overall cognitive ability is low, however her educational performance in the area of math is just slightly below average. The retention has been beneficial for her. She is well behaved, follows teachers directions and she has mastered counting, writing, and recognizing numbers to 100. She is able to add and subtract within 10 using manipulatives, however she has not mastered addition and subtraction within 20. One important concept we will start with related to operations and algebraic thinking is using strategies to add within 20.

The first instructional activity I would use is "Adding Doubles". To teach this concept I would first review "The Doubles Rap Song" found on youtube for doubles 1-5. We would review by adding doubles within 5 to understand the concept. We would then use counters to show two like groups for a concrete representation of adding doubles within 5 and solve. Being this is a review, this would allow a scaffolded approach to begin to introduce adding doubles 5-10. Next, we would watch the "Doubles Rap Song 5-10". We would first listen to the song, sing it together, and then the student would sing the rap independently without the video. Again, I would use counters to show the representation of the Doubles facts 5-10. We would then transfer the conceptual picture to paper by writing our doubles and drawing a picture under each double fact. Resources I would need to complete this activity would be access to youtube video, counters, paper and pencil.

The second instructional activity I would use is "Making a 10". The student is familiar with place value for the 10s and the 1s place, she is also familiar by using a

10 frame and number bonds. We would compose numbers to make a 10 and then add the rest. For example, if the problem presented was 8 + 6, I would use two ten frames and have counters available for each representation to make ten. In order to make 8 a 10, we would need to take 2 away from the 6. The new problem would then become 10 + 4, which would be easier for the student to solve. The resources I would need for this problem would be tens of frames and counters.

Both of these activities would be effective for the student because they both activate multiple learning styles. We have a concrete representation by using the counters that the student is able to use as a visual and that she can manipulate. I also use a scaffolded approach with direct, explicit, and systematic instruction that is appropriate to meet the learning style of my student.

To measure progress towards this assignment, I would first allow the student to use manipulative to solve each and give a formative assessment. If the student is successful with that, I would then take away the manipulatives and give her the doubles and make a ten problem on paper. Through observation and my grading, I would be able to determine if the student was successful when taking away the manipulatives. If the student was not successful I would assume she would draw a picture to represent her work, if not, we would then incorporate more individually problems and use the "I do, we do, you do" approach until we are able to remove the manipulatives.