

Evaluating Expressions Day 2: 11/2/20, 11/4/20

Grade: 6		Subject: Math	
Materials: Notebook, pencil/pen, marker board, markers		Technology Needed: Chromebook	
Instructional Strategies: <input type="checkbox"/> Direct instruction <input type="checkbox"/> Guided practice <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> Learning Centers <input type="checkbox"/> Lecture <input type="checkbox"/> Technology integration <input type="checkbox"/> Other (list) <input type="checkbox"/> Peer teaching/collaboration/cooperative learning <input type="checkbox"/> Visuals/Graphic organizers <input type="checkbox"/> PBL <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Modeling		Guided Practices and Concrete Application: <input type="checkbox"/> Large group activity <input type="checkbox"/> Independent activity <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain: <input type="checkbox"/> Hands-on <input type="checkbox"/> Technology integration <input type="checkbox"/> Imitation/Repeat/Mimic	
Standard(s) 6.EE.2(c): Write, read, and evaluate expressions in which letters stand for numbers. c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). ISTE Standard 2(b): (Digital Citizen) Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. b. Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.		Differentiation Below Proficiency: Based on the information gathered from the formative assessment, the majority of the review problems will be the type that these students seemed to struggle with the most. This will allow the students to work through the problems with help if needed. Above Proficiency: These students will be challenged to help their group members better understand the content. (Teaching it helps them better understand it as well.) Approaching/Emerging Proficiency: During the review, I will be walking around the classroom to monitor progress. Modalities/Learning Preferences: <u>Auditory:</u> I will be explaining the review activity verbally, which will help these students better understand the directions. <u>Visual:</u> I will also be showing the students the review problems up on the front interactive whiteboard. Students attending class physically will also be grouped with students attending class virtually through google hangouts to collaboratively work through the review problems. The students will use the messaging feature of google hangouts to collaborate. <u>Kinesthetic:</u> Students will be able to use their personal markerboards to record their answers for each problem, which is a more interactive method than copying them down in their notes.	
Objective(s) 1. Students will be able to evaluate various expressions with given values for the variables. 2. Students will demonstrate their understanding of the order of operations through evaluating expressions. Bloom's Taxonomy Cognitive Level: Knowledge, Comprehension, Application			
Classroom Management- (grouping(s), movement/transitions, etc.) Due to COVID, students remain in their assigned seats for class each day. However, since students are able to socially distance, they are provided 15-minute mask breaks during each class period. In an attempt to provide the group work and collaboration that has been difficult to implement this year, the in-class students will be paired up through google hangouts with students attending virtually so that they can discuss their answers during the review activity.		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) Students will be expected to utilize google hangouts effectively and professionally. I will explain basic internet messaging courtesy and that I expect them to be kind and respectful to their partners on google hangouts.	
Minutes	Procedures		
15-20	Set-up/Prep: Create a review PowerPoint for the summative based on the results of the formative assessment.		
5-10	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) To begin class, I will go over the answers to the two homework assignments that are due. As I go through them, I will check for student understanding and go through some of the problems on the board if any student is still confused. After, I have answered all questions and gone through problems if necessary, I will ask the students to take out their Chromebooks and their personal marker boards for the review activity.		
30-35	Explain: (concepts, procedures, vocabulary, etc.) First, I will explain the review activity. 1. Students will be paired up with students attending virtually, groups of three will be created if necessary. 2. I will explain to the students the expectations for how they will utilize google hangouts (respectful, responsible, helpful).		

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	<ol style="list-style-type: none"> 3. I will be showing four problems at a time on the front board for students to work through. For each set of problems, the variables will be set at the same value. 4. After most of the groups have finished all four parts and discussed their answers with their partners, I will go through each problem step-by-step on the front whiteboard. 5. Before moving on to the next slide, I will check for student understanding by asking if they still have any questions after seeing me work out the problems. 6. When there are about 5 minutes left for the review, I will make sure to wrap up whatever we are on so that students may ask questions. <p>Before the students take the summative assessment, I will ask what questions they still have on evaluating expressions so that they are ready for the assessment.</p>
45	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</p> <p>For the second half of the 90-minute class, the students will be taking their summative assessment. I will give the students a 10- and 5-minute warning for the assessment so that they are able to better pace themselves towards the end of the class period.</p>
2-5	<p>Review (wrap up and transition to next activity):</p> <p>If students finish early, they will have the opportunity to complete DreamBox lessons or other approved math games. At the end of class, I will remind students that they will need to check in to class virtually the next day and the online assignments they have.</p>
<p>Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.</p> <p>For the review activity, I will be walking around the classroom and checking in with the groups during worktime to make sure they are staying on track and to see if they have any questions. The review problems have been based on their responses on the formative so that the review will better prepare them for the summative.</p> <p>Consideration for Back-up Plan: If google hangouts does not work for the students to collaborate, then I will facilitate large group discussions for each slide before going through the problems.</p>	<p>Summative Assessment (linked back to objectives) End of lesson:</p> <p>Since standards-based grading is utilized, the summative assessment will only be for the one standard mentioned above in the lesson. This assessment will be much shorter than the formative assessment and will be graded on a scale of 0.5-4. The summative will also include a level 4 question in addition to the level 2 and level 3 questions assessed in the formative.</p> <p>If applicable- overall unit, chapter, concept, etc.:</p>
<p>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</p> <p>Day 1 Reflection: Getting students up on the google hangouts took most of the review time and we have learned from it so that it will hopefully go more smoothly next time. We will have the names of each student's partner(s) on sticky notes for them to start typing in the names and creating a google hangouts messaging group so that it takes less time. It seemed that most students got the "2b+3" question correct since we were able to go over two commonly missed problems from the formative before we got into the problems I prepared for the review. Most of the students used google hangouts effectively to discuss and compare their answers during worktime. The summative results so far indicate that most of the students are still struggling with the level three-type questions for evaluating expressions. I also forgot to have the students use their markerboards for the review, so I will make sure I have the students get theirs out while students are still getting paired up on google hangouts.</p> <p>Day 2 Reflection (observed by Cammy Erickson): Having the sticky notes ready for the google hangouts helped that part of the lesson go more smoothly. Students seemed to be using google hangouts effectively for the review and were engaged when I was going through the problems on the board. I think the students finally understand what a number next to a letter (2a, for example) means in math (multiply). Most students were able to use their markerboards for the review problems. We had a new student in class today who just switched from distance learning and we were able to include him in the lesson as well. Cammy made a good suggestion in her observation about using a microphone so that the students at home could hear me better. If I were teaching this lesson in my own classroom where I was required to wear a mask during lecture, I would definitely want to have a microphone of some sort.</p>	