Learning Activity Plan 2

1. Content: Describe ***what*** it is you will teach. What is the content?

In this lesson I will not be directly teaching anything. Instead, students will be given the freedom to create their own balanced equation problem and write a scenario to go along with it. They will then solve each other’s problems.

1. Learning Goal(s): Describe what specifically students will ***know*** and ***be able to do*** after the experience of this class.

After this lesson, students will know how to create a balanced equation on their own. They will also be able to solve balanced equations and write two sets of equations: one to describe the original scenario, and one to describe the solution.

1. Rationale: Explain how the content and learning goal(s) relate to your Curriculum Unit Plan learning goals.

For the past two days, students have been working to write balanced equations to model different given scenarios. It will now be up to them to think of real-world scenarios that call for balanced equations, and to solve scenarios that their classmates create.

1. Assessment: Describe ***how*** you and your students will know they have reached your learning goals.

On top of creating their own scenario, students will create an answer key with the corresponding equations and mathematical work. This answer key will also include an explanation of why the scenario requires the use of balanced equations, which help me assess if students understand this important concept.

At the end of the two days of this lesson, I will collect their scenarios and answer keys check for accuracy. During the lesson, students will solve each other’s problems and will be responsible for checking each other’s work. If a student’s answer key is wrong, it’s up to another classmate to recognize that and help them fix it. As students solve each other’s problems, I will ask them to write down all their work on a separate recording sheet that I will provide. I will collect this sheet at the end of class so that I can assess what and how each student has been doing.

1. Personalization and equity: Describe how you will provide for individual student strengths and needs. How will you and your lesson consider the needs of each student and scaffold learning? How specifically will ELL students and students with learning disabilities gain access and be supported?

Since students will be creating their own problems, my hope is that they create problems that are roughly at their level. Students who need a challenge will ideally create more challenging problems, while students who aren’t as comfortable with the material will create simpler problems. Since I anticipate that students might not appropriately challenge themselves on their own, I have included a section on the rubric for this project called “appropriateness of challenge.” When we go over the rubric as a class, I will explain and stress this to them. I will also make it clear that they can check with me during class if they have any questions about this.

Students will be allowed to draw a scenario instead of write one, which will allow an entry point for ELL students and students with learning disabilities who struggle specifically with reading and writing. Manipulatives will also be available to help students solve the problems.

1. Activity description and agenda
   1. Describe the activities that will help your students understand the content of your class lesson by creating an agenda with time frames for your class. Be prepared to explain why you think each activity will help students on the path toward understanding.

See attached timed agenda.

* 1. What particular challenges, in terms of student learning or implementing planned activity, do you anticipate and how will you address them?

I expect some students to struggle to come up with their own scenarios, for they may not yet fully grasp the real-world aspect of balancing equations. In my agenda for the first day of this lesson, I planned time to model for students how to create a scenario. I hope that this will help give them an idea of what they could create. I will also circulate around the room while students work on their scenarios and can assist on an individual basis.

In addition, I anticipate that some students will have created answer keys for their own scenarios that are incorrect. I intentionally am not checking students’ work until the end, for I want students to catch each other’s mistakes when they solve problems with their partner. I will tell the class that if their answer does not match up with the answer on an answer key and they have reason to believe that the answer key is wrong, then they should go straight to the creator of the problem and present their case.

1. List the Massachusetts Learning Standards this lesson addresses.

Content Standards:

1. CCSS.MATH.CONTENT.8.EE.C.8.C  
   Solve real-world and mathematical problems leading to two linear equations in two variables.

Practice Standards:

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Model with mathematics
4. Look for and make use of structure
5. Reflection
6. In light of all areas of planning, but especially in terms of your stated purpose and learning goals, in what ways was the activity(ies) successful? How do you know? In what ways was it not successful? How might the activity be planned differently another time?
7. What did you learn from the experience of this lesson that will inform your next LAP?