**Assignment #6-B: Develop a Unit:  Lessons**

**Unit:**  Solving Equations

**Links used:**

Khanacademy.org

Mathplayground.com

Better Lesson:  Mystery Bags - <https://betterlesson.com/lesson/464022/mystery-bags-game>

Mystery Bags Game Answers: <http://imp2.pbworks.com/w/page/7792187/Mystery%20Bags%20Game>

**Learning Outcome:**  The objective of the 3 lessons is for students to learn how to solve linear equations that contain a single variable, starting with one-step equations and concluding with multi-step equations.

Lesson 1:  I would start lesson one with a 5 minute discussion of what a variable is.  I will use the example of my wallet and take out $3 and ask students if they know how much money is in my wallet.  I will then tell them that with my wallet plus the $3 I have a total of $10 and ask again if they know how much is in my wallet.  We will discuss that a variable represents an unknown that can be solved within a given equation.  Next, I’ll have the students go to khanacademy.org>Algebra 1> Solving Equations and take the opening Quiz 1.  Based on how they did on the quiz, they will work independently through the videos and practice and re-take the quiz until they get 100% accuracy.  Students may play games on mathplayground.com upon a 100% score on Quiz 1.

Lesson 2:  I will start the lesson out by reviewing with students how to distribute by doing the best wrong answer warmup.  Students will be given an index card and will be asked to simplify an expression that includes distributing on the card.  I will then collect the cards, making a pile of wrong answers and correct answers.  I will then place a wrong answer up on the overhead and have a class discussion of what the person did well and where the person made the error.  We will then review what a variable is and give another example where I will have 3 volunteers come to the front of the class.  I will give them each an envelope with the same amount of money in them and ask the class if they know how much money is in each envelope.  I will then tell them that the total amount equals $15 and discuss how they know how much is in each.  Students will then go to <https://www.khanacademy.org/math/algebra/one-variable-linear-equations> and take Quiz #2, working independently until they reach 100% accuracy.

Lesson 3:  I will start the lesson by breaking students into pairs and answering questions about a word problem about a king and his magic coins.  The gist of the word problem is found at <https://betterlesson.com/lesson/464022/mystery-bags-game>.  Students draw on butcher paper demonstrating visually how they solved each problem.  Groups present to the class when all are done.  Then students will go to <https://www.khanacademy.org/math/algebra/one-variable-linear-equations> and take quiz 3.  Students who master quiz 3 can then take the unit test on Khan.