**Alyssa Prats**

**EME Lesson Plan 3**

Lesson Objective:

Benchmark: MA.6.A.5.2 – Compare and order fractions, decimals, and percents, including finding their approximate location on a number line.

Grade Level: 6th

Subject Area: Mathematics

Content/Skills:

The students have been learning all semester how to change fractions into decimals, decimals into percents, and every combination of these three things. This lesson will seek to pull all of that knowledge together. They will be able to compare the numbers to each other and determine where they fall with respect to each other.

Materials:

* Note cards
* Projector
* Computer
* Smart Board & Pen

Activities:

To begin the lesson, my class and I will play a game that helps review all of the skills we have been learning thus far. Students will be split up into teams and it’ll be a relay where students come up to the board to solve a problem and pass the marker over to their teammates. Whichever team finishes first gets a prize. This game will be a fun way to make sure that the students understand all previous information before moving on.

As an emergence activity to introduce the topic, I will give each student in the class a note card. Printed on it is a fraction, a decimal, or a percent. The students will rearrange themselves and determine where they fall on a number line. By visually showing where the numbers fall on a continuum, it’ll help students grasp the concept of arranging like numbers. While I do not expect them to get this right on the first try, it will be a fun activity to get them to understand what they will be working toward on their own. It’ll get them thinking and making connections before I show them how to do the work.

To show the students how numbers relate to each other and why the numbers go where they go, I will use the computer to simulate pie charts. It will show what 2/7 of the pie looks like, what .27 looks like, and what 72% of the pie looks like. It will help students make the connection between how these numbers are different ways of explaining the same concept, a portion of something.

On their own, students will split into groups. The more advanced group will be the “number converters”. They will decide whether to convert the numbers to all decimals, all percents, or all fractions. The average group will be the “number comparers”. Once all of the numbers have been changed, the students in this group will compare them to each other to determine which ones are least to greatest. The low achieving group will be the “number arrangers”. Using the information that the other students have gotten, they will arrange the numbers (in their original form) on the number line at the front of the classroom. The students will watch each other and help each other out, but this activity demonstrates how important each step is in arriving at the final answer.

Evaluation/Assessment:

I will know that the students have succeeded in understanding the exercise when they can explain to me in words, **why** we arranged the numbers the way we did. Encouraging the students to think about how they view this process of arranging numbers is a form of emergence learning.

Students will be assigned online homework that must be submitted before the start of school the next day. It will ask them to arrange the numbers from least to greatest, and show all of their work. They will also have to provide a written explanation of how they arrived at their answer. The homework software will grade itself, and the students will be awarded a score out of 10 for the questions they got right. If some students do not have access to the internet at home, I will give them a worksheet with the same problems on it that I will grade by hand. From how they do on the homework, I will be able to determine how well they can understand and apply the material we have learned so far in the unit!

Knowing how fractions, decimals, and percentages all relate to each other is very important in everyday life. They surround us all the time, from money to taxes to ratios. For students to be able to function properly in the “real world”, these skills will be invaluable.