Timed Agenda LAP 5 Day 1

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| Time | What Students Will Do | What Teacher Will Do | Rationale |
| 10:36-10:45 | * Enter room * Do starter | Starter: As of December 2016, there were roughly 6 x 108 monthly active Instagram users and 3 x 108 monthly active Twitter users.   1. Which social media platform had more users? How do you know? 2. How many times more users did it have? How do you know? | Scientific notation is situated in a relevant real-world context that will hook them in to the lesson. |
| 10:45 – 11:00 | * Share answers * Ask each other questions | * Call on volunteers for answers * Have students come to the board/Elmo and show how they figured it out * If no one brings it up, show students that you can write it as a division problem (6 x 108)/(3 x 108). Using exponent rules/common sense, the 108 cancels out and then you’re left with 6/3 which simplifies to 2. | By sharing answers, students will get to see different ways of conceptualizing the problem.  Bringing up the idea of writing it as a division problem brings us back to exponent rules! We will be drawing on exponent rules more heavily as we work more with scientific notation, so this is the first step. |
| 11:00 - 11:05 | * Work with group to figure out problems | * Write more problems on the board and ask them to work with their table to decide which is bigger and by how much:  1. 9 x 107 and 3 x 107 2. 20 x 104 and 5 x 104 3. 6 x 108 and 2 x 107 4. 12 x 105 and 4 x 104 5. 7 x 106 and 1 x 104  * Tell them that they will need to report out in five minutes * Circulate and somewhat decide the order in which the groups will present | Students will progress from simple comparisons to more complicated ones to begin to understand how the powers of 10 affect the numbers.  In order to ensure that the first group doesn’t take all the talking points away from the other groups, I will try to assign an order to the presentations based on the work I see as I circulate. |
| 11:05 – 11:20 | * Each group shares out * Ask each other questions | * Facilitate discussion of problems * If they haven’t figured it out, ask them how they could write each problem as a division problem and use exponent rules to figure it out. * Get them to see that each time the exponent increases by one, the value increases 10 times. | Students will approach (or fully come to) the desired conclusion on their own and will be able to build off of each other’s thoughts. |
| 11:20 – 11:28 | * Volunteer to solve problems in front of the class | * Ask for a student volunteer to think of two numbers in scientific notation. They will then come to the board and compare them using the division process. They will think aloud as they work so that the whole class knows what’s happening. * Repeat this a few times until class is over. | Students often learn better from each other than they do from me. Having multiple students solve and explain problems for the class repeatedly exposes students to the method, giving them multiple attempts to understand. |