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| **Teachers:** Ms. Pedrazine, Ms. Silvas, Dr. Bruun, Ms. Blair |
| **Date: November 10, 2015** |
| **Subject / grade level: Mathematics / 3rd Grade** |
| **Materials:**  Place value Anchor chart  5 white boards (one per student in small group)  Roll it! Make it! Expand it! worksheet  3 Dice  Math Manipulative place value blocks  Smart board- Smart exchange gamePlace Value Mat |
| **TEKS:**  (2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:  (A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate; |
| **ENGAGEMENT (5 minutes)**   1. Teacher tells students that they are going to watch a movie about place value. The students need to pay careful attention because the rapper will ask them questions that they need to answer aloud. 2. Video: [www.youtube.com/watch?v=Z6hO1bofNf4](http://www.youtube.com/watch?v=Z6hO1bofNf4) 3. Allow students to chorally answer the questions that are being asked during the video. |
| **EXPLORATION (Stations- 10 minutes each)**   1. **White boards**- Each group will use individual student white boards to represent a number in expanded form, word form, and picture form, as well as correctly representing place value. Guidance from the teacher at this station will allow the students to understand the differences between the different forms, correct place value, and what number is being represented. 2. **Roll it! Make it! Expand it!-** [**Roll it! Make it! Expand it! Worksheet**](https://www.teacherspayteachers.com/Product/Place-Value-Hundreds-and-Thousands-Freebie-Roll-it-Make-it-Expand-it-852130)Students will work in small groups using the worksheet, and three dice. Students will roll each die one time and arrange the numbers rolled in the most appropriate form. Next, the student will represent the number in pictorial form as well as expanded form. 3. **Renaming Station-** Students will work with a place value mat to represent numbers chosen by the teacher in manipulative (picture) form. For example, if the student is given the number 456, they may choose to represent the number using four flats, five rods, and six small cubes. Next the students will be asked in what other ways they may be able to use the manipulative to represent this number. (example- forty five rods and six small cubes) 4. **Computer station-** Students will work individually at computer stations to complete the “Who wants to be a millionaire” place value game. Each student will be set at a computer with individualized headphones to complete the game. [Place value game](http://www.math-play.com/Place-Value-Millionaire/place-value-millionaire.html) |
| **EXPLANATION (10-15 minutes)**   1. Use the smart exchange link to explain how place value and manipulative representations of fractions as well as how to differentiate between number form, expanded form, picture form, as well as place valu 2. <http://exchange.smarttech.com/details.html?id=20b112c4-a46c-4392-9de2-0bb060c3414a> |
| **ELABORATION (5-10 minutes)**   1. Students will return to their seats following the conclusion of the group work. 2. Instruct students to “Think, Pair, Share” with classmates about the activities in the stations. 3. As a class, have each group come up with a question they still have about the place value, expanded form, or pictorial form of a number. 4. Ask higher order thinking questions to the students: How can you represent a number in more than one way? What do the different forms of numbers represent? Is it always the same number no matter how it is represented? What does the place value have to do with the number? How are the numbers related to one another (Ex. the number to the left is ten times the number to its right)? |
| **EVALUATION (10 minutes)**   1. Students will participate in a ticket out the door activity where they will assist in creating an anchor chart. 2. Compose the anchor chart as a class, the students will be given a number (Found in the center of the anchor chart), and asked to represent that number in written form, expanded form, model/pictorial form, and label the appropriate place value. 3. Each group will be assigned one section of the anchor chart and is responsible for writing their answer on a sticky note and placing it on the appropriate place within the chart. |