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| counting in millions | 3.20.2019 |

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| Subject |  | Overview |
| |  | | --- | | Mathematics | | Prepared By | | [Instructor Name] | | Grade Level | | 5 | |  | This lesson plan covers teaching content for;   1. Reading and writing to at least One million and determine the value of each digit. 2. Rounding any whole number up to 1 000 000 to the nearest 10, 100, 1000, 10 000, 100 000. 3. Quantitative reasoning problems |

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| Materials Required -Plain sheets of paper/cardboard  -Markers  -Sheet of paper with blanks for a 9digit number  -One sheet of drawing paper  -Colored pencils, ruler, calculator  - |
| Additional Resources  * <https://study.com/academy/lesson/place-value-up-to-hundred-millions-lesson-for-kids.html> * <https://za.pearson.com/content/dam/region-growth/south-africa/pearson-south-africa/TeacherResourceMaterial/9781447978435_m01_ngm_mat_pr6_tg_eng_ng_web.pdf> * <https://study.com/academy/lesson/using-a-place-value-chart-in-the-classroom.html#lesson> * <http://www.teach-nology.com/lessons/lsn_pln_view_lessons.php?action=view&cat_id=5&lsn_id=4905> * <https://nzmaths.co.nz/resource/place-value-whole-numbers-and-decimals> |
| Additional Notes |

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| **Objectives** Students should be able to;   1. Read and write to at least one million. 2. Use Knowledge of place value to order number from least to greatest. 3. Solve quantitative reasoning problems. |  | **Activity Starter/Instruction**  1. Display a 7 to 9-digit number for students to read aloud as a group or one student at a time. 2. Use a number with an interesting meaning (Distance from a planet to the Sun etc. 3. Ask students if they can guess the significance of the number. 4. Allow students to identify the place value for each digit.   **Guided Practice**  **Day 2/ Lesson 2: 15 Mins**   1. Start by passing the following to each students: a sheet of paper with blanks for a nine-digit number and a list of nine icebreaker questions that have only one digit numeric answer. 2. Tell students they will ask one another the nine questions (one classmate per question). If an answer is not a whole number (such as a shoe size of 7½), they should round up to the nearest whole number before writing it in one of the blanks on their paper. 3. Once students have filled in all nine blanks, have them add commas between some of the blanks to make the numbers easier to read (e.g., 234,521,578). 4. Finally, have students line themselves up from least to greatest number. |  | **Teacher Guide**Day 1/Lesson 1: 20 Mins  1. Assign students to groups of 4-6. Distribute blank sheets of paper/cardboard markers. 2. Assign one student from each group to be the secretary to list at least 5 numbers the group will display to the class. 3. Encourage students to work together and assure everyone in the group is able to read each number and identify the value of each digit (Some may not be able to do this, but the lesson will hopefully help those students understand place value better.). Let students to start out with smaller numbers and progress to larger numbers. 4. Once all groups are ready, create an order for each group to present the numbers in front of the classroom. 5. When a group first displays a number, the group will read it aloud together. As a group presents, the teacher will then choose seated students randomly to label each digit’s place value. Continue with the procedure until all groups have had a chance to; display their created numbers.  Guided Practice **Day 3/ Lesson 3: 20mins**   1. Draw or display a place value chart with the place values. Review the place value names. 2. Write a number in the chart, like 6,129,534. Explain that each place is ten times the place to its right. 3. Draw an arrow pointing to the digit in the tens place and write 3 x 10. Draw an arrow to the digit in the hundreds place and write 5 x 100. Continue for each place value. 4. Explain that this number is written in standard form which means it is written with counting numbers, the way we usually see numbers written. 5. Write the number in word form (the way we read or say numbers aloud; e.g., six million, one hundred twenty nine thousand, five hundred thirty-four). 6. Write the number in expanded form (a way to break a number apart to show the value of each place value; e.g., 6,000,000 + 100,000 + 20,000 + 9,000 + 500 + 30 + 4) |
|  |  | **Assessment Activity** Assess if pupils can   * 1. Read and write to at least one million   2. Determine the place value of each digit |  |  |
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|  |  | Summary   1. Teacher goes over the topic for more understanding |  |  |
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