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**Lesson 1: Visualizes numbers up to 10 000 000 with emphasis on numbers 100 001-10 000 000.**

**OBJECTIVE**: Visualizes numbers up to 10 000 000 with emphasis on numbers 100 001-10 000 000.

**Value Focus**: Care for the environment

**Prerequisite Concepts and Skills**

1. Visualizing numbers from 50 001 to 100 000
2. Associating numbers with sets having 50 001 to 100 000 objects

**Materials**: Cutouts of numbers disc (100 000s, 10 000s, 1 000s, 100s, 10s, 1s)

**References**: K to 12 Grade 5 Curriculum

**INSTRUCTIONAL PROCEDURE**

1. **Preliminary Activities**
2. **Drill**

Have a drill on visualizing numbers 50 001 to 100 000.Pupils can be asked to use or draw number discs to show numbers 50 001 to 100 000.

Example: Using your cutouts of number discs, show these numbers:

1. 62 210 b. 81 800 c. 72 747 d. 64 619 d. 95 345
2. **Review**

Conduct a review on associating numbers with sets having 50 001 to 100 000 objects.

1. **Motivation**

Have you ever joined a tree planting activity in your school? Or did you ever plant tree seedlings in your backyard? Why do you think is it important to plant trees? Emphasize the value of caring for the environment.

1. **Developmental Activities**
2. **Presentation Present this situation to the class**

A group of students from different schools in San Pablo City joined a tree planting Activity. There were 102 268 trees planted in all. Do you know how big 102 268 is?

1. **Performing the activities**

Group Work

Group the pupils into five teams.

Distribute cutouts of number discs to visualize 102 268.

Guide Questions:

How many 100 000s discs did you use?

How many 10 000s discs?

How many 1 000s discs?

How many 100s discs?

How many 10s discs?

How many 1s discs?

1. **Processing the Activities**

After all groups have presented their answers, look back at the given example.

Ask: How many 100 000s do we have?

How many 10 000s do we have?

How many 1 000s do we have?

How many 100s do we have?

How many 10s do we have?

How many 1s do we have?

Say: 102 268 means 1 hundred thousands, 0 ten thousands, 2 thousands, 2 hundreds, 6 tens and 8 ones”

Ask: How did you find the activity? Did you work cooperatively with your group?

Was using number discs helpful to you in visualizing numbers from 50 001 to 100 000?

Give other examples for pair Work. Distribute cutouts of number discs ( 100 000s, 10 000s, 1 000s, 100s, 10s, and1s). This time pupils work in pairs. Have them visualize the following. Then later, ask the groups to show their answers.

1. 250 112 b. 3 147 619 c. 762 493 d.1 280 678 e. 5 342 000

Do the same processing with the other examples done by the pairs.

1. **Reinforcing the Concepts and Skills**
2. Using your number discs, show these numbers
3. 3 562 480
4. 5 789 780
5. 234 765
6. 456 786
7. 678 465
8. Draw number discs to show the following numbers. Draw your answer in your notebook.
9. 567 678
10. 1 245 768
11. 7 898 678
12. 567 345
13. 4 567 342
14. 1 234 678
15. 789 654
16. 7 897 000
17. 7 890 000
18. 789 564
19. **Summarizing the Lesson**

To visualize numbers from 100 001-10 000 000, we use number discs such as 100 000s, 10 000s, 1 000s, 100s, 10s, and 1s.

1. **Applying to New and Other Situations**
2. Use number discs to show these numbers.
3. There are 2 625 900 at the peace rally.
4. Draw number discs to show these numbers.
5. The foundation donated 6 789 567 assorted canned goods to the typhoon victims.
6. Have the pupils do other activities.
7. **Assessment**

Draw number discs to show these numbers

1. 345 689
2. 5 678 900
3. 5 678 345
4. 7 567 000
5. 456 234
6. Don Enrico harvested a total of 1 345 578 kilograms of Indian mango in five harvest season.
7. There were 897 678 who joined the save the movement.
8. About 1 000 000 baby dresses produced by a factory in a year.
9. 3 456 678
10. 10 000 000
11. **Home Activity**

**Remediation**

Draw number discs to show these numbers

1. 5 678 450
2. 2 345 678
3. 234 589
4. 6 000 000
5. 567 700

**Enrichment**

Write the numbers for the following

1. 5 millions, 2 hundred thousands, 9ten thousands, 8 thousands, 6 hundreds, 5 tens, 9 ones
2. 4 millions, 3 hundred thousands, 8ten thousands, 7 thousands, 0 hundreds, 4tens, 8 ones
3. 3 millions, 2 hundred thousands, 5ten thousands, 6 thousands, 2 hundreds, 1 tens, 0 ones
4. 9 millions, 7 hundred thousands, 8ten thousands, 3 thousands, 0 hundreds, 2 tens, 3 ones
5. 6 millions, 1 hundred thousands, 6ten thousands, 7 thousands, 8 hundreds, 4 tens, 3 ones

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**Lesson 2: Reading and Writing numbers up to 10 000 000 in symbols and in words.**

**Objective:** Reads and Writes numbers up to 10 000 000 in symbols and in words.

**Value Focus;** Teamwork

**Prerequisite Concept and Skills**

* Reading and writing numbers from 100 001 to 100 000
* Place Value of Whole numbers

**Materials:** Flash cards, Show me boards

**References:** K to 12 Grade 5 Curriculum

**Instructional Procedure:**

1. **Preliminary Activities**
2. **Drill**

Conduct a drill on Reading numbers using flash cards.

879 483 346 723 930 000 1 345 321 946 567

1. **Review**
2. Have a review on visualizing numbers. Dictate these numbers and instruct pupils to write them on their ‘show-me-.boards”

1 889 345 567 123 1 790 200

5 234 398 245 123

1. **Motivation**

Distribute the set of cards with numbers written in symbols and another set of cards with their equivalent in words. Tell the pupils to find their match. The first pair to match wins. Post the number pairs on the board.

Example 572 367 five hundred seventy-two thousand tree hundred sixty seven.

1. **Developmental Activities**
2. **Presentation**

The estimated production of coconut product from 2014-2016 of a certain region is 7 800 000 pieces.

Is it correct to write the number as 7 080 000? Why?

What is the correct way of writing this number?

How many digits does the number have? Can you read?

Ask the pupils the importance of farmers in our country.

1. **Performing the Activities**

Divide the class into 4 groups. Assign each group a task

Read and write numbers in words form.

Group I- 7 185 451 to 7 185 400

Group II- 6 276 251 to 6 276 300

Group III- 5 343 451 to 5 343 500

Group IV- 4 484 751 TO 4 484 800

1. **Processing the Activities**

Ask: How were you able to do your task

Call some pupils to read some numbers they have written.

Example: 7 185 355

Call some pupils to write the numbers in words on the board or on their “ Show- me- boards”.

Ask: How many digits do numbers from 7 185 351 to 7 185 400 have?

In numbers from 7 185 351 to 7 185 400, which digit is in the millions place?

How did you write the number in symbols? How did you separate millions and hundred thousand place from that of the digits of ten thousands, thousands, hundreds, tens, and ones?

How did you write the numbers in words?

Do you still need to write zero when writing in words?

1. **Reinforcing the Concept and Skills**

Explore and Discover

Mr. Vergel donated 5 books to each student. The total number of books donated was 245 689.

How do you read and write the number 245 689 in words and in symbols?

1. Write the missing number between the given numbers, then read these numbers.
2. 567 789\_\_\_\_\_567 791
3. 1 456 234\_\_\_\_1 456 236
4. 5 789 450\_\_\_\_5 789 452
5. 9 579 125\_\_\_\_9 579 127
6. 879 542\_\_\_\_\_879 544
7. Write the following numbers in words.
8. 2 567 897
9. 6 745 234
10. 8 900 234
11. 8 902 768
12. 745 678
13. **Summarizing the lesson.**

-Guide the pupils to give the generalization by asking “How do we read numbers from 100 001 to 1 000 000

How do we write numbers?

* To read numbers, read the digits in the first period at the left, say the period where the digits are. They, say only the digits in the units period.
* To write numbers from 100 001 to 1 000 000, the digits are separated by a comma or space in groups of 3 called periods starting from the right.

1. **Applying to New and Other Situations**

Read and Answer

* A town library has total 1 523 285 books and magazines.

Write the number of books and magazines in words.

* What is the greatest possible 6 digits number with 0 in the units’ period? Write it in figure and words

1. **Assessment**

Match the numbers in symbols with the corresponding numbers in words. (1-5)

Example: 1.)5 762 732 five million seven hundred sixty two thousand seven hundred two.

1. **Home Activity**

**Remediation**

1. Write the following numbers in symbols: (1-5)

Example: 1.) Two million nine hundred four thousand five hundred six

1. Write the following numbers in words.

Example: 1.) 8 678 456

**Enrichment**

Read newspapers or magazines and copy a news item that mention about millions or hundred millions such as the government budget, BIR tax collections, populations, business and others

|  |  |
| --- | --- |
| Source of new item | What are the million, hundred millions for |
| 1. |  |
| 2. |  |
| 3. |  |
| 4. |  |
| 5. |  |

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**Lesson 3: Rounding Numbers to the nearest hundred thousand and millions**

**Objective:** Rounds numbers to the nearest hundred thousand and millions

**Value focus:** Cooperation

**Prerequisite Concepts and Skills**

* Identifying the place value of a number.
* Rounding numbers to the nearest hundreds and thousands
* Concept of reading and writing a number
* Concept of up and down

**Materials:** Show me cards, picture, number lines

**References:** K to 12 Math 5 curriculums

**Instructional Procedure**

* 1. **Preliminary Activities**
     1. **Drill**

Distribute show-me-boards. Show the number wheels spin the wheel and let pupils see where the pointer stops. Instruct them to round the number to the nearest hundreds when the pointer stops at the white part of the wheel and round the number to the nearest thousands when it stops on the shaded part.

* + 1. **Review**

Conduct a review on rounding Whole Numbers to the nearest hundreds and thousands. Give exercise to the pupils. Ask them to Write their answer on their Show-me- boards”

* + 1. **Motivation**

Show a picture of a big crowd of people such as prayer rally/ basketball game. Ask pupils to describe what they see in the picture.

Ask: Can you tell the exact number of people in the rally or watching the game.

Say: Sometimes there is no need for us to give the exact number. Instead we just approximate/estimate how many people or things there are

Ask: Why is it important to estimate?

1. **Developmental Activities**

**Presentation**

Use the number line (Skill Development)

Mechanics:

a. Draw a number line on the board. Elicit from the pupils the whole number of points that are needed according to the problem, (“nearest hundred thousand”) namely 100 000 and 200 000.

b. Have pupils plot 187 786. Lead pupils to answer the problem by asking: Which “hundred thousand” is 187 786 closer to?

c. Provide another number. What if we are expecting 125 000 guests instead? Follow the same process.

d. Elicit from pupils which number would round up to 200 000 (150 000-299 000). Mention that when we read the halfway mark, we round up.

e. Generalize the rule for rounding off based on pupil’s observations.

f. Provide more examples of rounding numbers using the number line.

Guide pupils to see the pattern when to round up and when to round down.( prepare activity sheets for rounding numbers)

1. Pupils are group into four. Each group will be given an activity sheet to answer.

Activity: Round as indicated

|  |  |  |
| --- | --- | --- |
| Money | Round to the nearest hundred thousand | Round to the nearest millions |
| Php 1 567 789 |  |  |
| Php 8 361 124 |  |  |
| Php 6 523 289 |  |  |
| Php 10 560 580 |  |  |
| Php 5 068 732 |  |  |

1. The first group to finish with its correct answer wins. Let every group post its work. Let the groups check their answers.
   * 1. **Processing the Activities**

Say: Let us look at your work

Ask

* What is the rounding place if a number is to be rounded to the nearest hundred thousand? Millions?
* What digit should be at the right of the digit in the rounding place in order to round down?
* What digit should be at the right of the digit in the rounding place in order to round up?
  + 1. **Reinforcing the concept and Skills**
       1. Round the number 98 654 139 856 to the nearest:

1) hundred millions \_\_\_\_\_\_\_

2) hundreds \_\_\_\_\_\_\_

3) tens \_\_\_\_\_\_\_

4) ten millions \_\_\_\_\_\_\_

5) hundred thousands \_\_\_\_\_\_\_

b. Complete the table

|  |  |  |
| --- | --- | --- |
| Number | Round to the nearest hundred thousand | Round to the nearest millions |
| 15 167 769 |  |  |
| 9 261 123 |  |  |
| 8 523 287 |  |  |
| 16 560 581 |  |  |
| 7 468 734 |  |  |

* + 1. **Summarizing the lesson**

Ask: How do we round numbers?

To Round numbers:

* Look at the place at the left of the number to be rounded.
* Check the digit to its right. If it is less than 5, round it down. If it is 5 and above, round it up.
* Change all the digits to the right of the digit to be rounded to 0.
  + 1. **Applying to the New and Other Situations**

Solve the problem.

In the library, there are 567 678 mathematics books, 1 234 567 science books, and 456 567 English books. About how many books are there in the library?

1. **Assessment**

Round the following to the nearest

1. Hundred thousand b. millions
2. 567 678
3. 1 456 890
4. 4 678 980
5. 3 234 678
6. 6 789 789
7. **Home Activity**

**Remediation**

Round the following to the nearest

1. Hundred thousand b. millions using number line.
2. 567 678
3. 1 456 890
4. 4 678 980
5. 3 234 678
6. 6 789 789