3

NATIONAL LEARNING CAMP

DepED DEPARTMENT OF EDUCATION

Mathematics

Consolidation Camp

Lesson Plans

Consolidation Learning Camp

Lesson Plans

Mathematics Grade 3

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MATHEMATICS Grade 3 Lesson Plan 1

Key Ideas

- Understand that odd numbers cannot be divided evenly into two groups.
- Recognize that even numbers can be divided into two equal groups with no remainder.
- Practice identifying odd and even numbers through various activities.

Most Essential Learning Competency

- Identifies odd and even numbers. M3NS-IIIa-63

Component 1: *Lesson Short Review*

Time: 5 mins.

Do you know the song Twinkle, Twinkle Little Star?

Let's sing the song I have prepared for you using the tune of that song.

Odd and Even Song

Numbers dancing, big and small, Some stand tall, some stand short and fall. Which are even, which are odd, Let's sing a song and learn the code! (Chorus) If the last one ends in two, four, six, or eight, Even number, celebrate! If it ends in one, three, five, or seven, nine, Odd it is, it's counting time!	Zero's special, stands alone, Neither even, nor its own. Count by twos, they skip and hop, even numbers, never stop! (Chorus) If the last one ends in two, four, six, or eight, even number, celebrate! If it ends in one, three, five, or seven, nine, Odd it is, it's counting time!

- Let the learners sing the song twice.
- Ask the learners the following questions.

  -What do you call the numbers that end with 0, 2, 4, 6, and 8?

  -Can you give me a number that ends with 0? 2? 4? 6? 8?

  -If we are going to divide it into 2, what do we get?

  (Briefly discuss the concept of even numbers, reminding them that even numbers can be divided equally by 2)

  -What do you call the numbers that end with 1,3,5,7, and 9?

  -Can you give me a number that ends with 1?3?5?7?9?

  -If we are going to divide it into 2, what do we get?

  (Briefly discuss the concept of odd numbers, reminding them that odd numbers cannot be divided equally by 2. It always has a remainder)

Sample Answers

Q1: Even Numbers

Q2: 10, 22,34,56, 68

Q3: We get an equal number of pairs. It has no remainder.

Q4: Odd Numbers

Q5: 11,13,15,17, 19

Q6: We don't get an exact number of pairs. It always has a remainder.

Component 2: ***Lesson Purpose/Intention***

Time: 2 mins.

Today, we will explore the fascinating world of odd and even numbers, uncovering their hidden patterns and practical uses. By mastering odd and even numbers, we will unlock powerful tools for solving problems and understanding the world around us. Get ready to sharpen your logical thinking and number sense as we explore the significance of odd and even numbers.

Component 3: *Lesson Language Practice*

Time: 3 mins.

- Let's tackle the following difficult or unfamiliar words. Read them together quietly first, then say them out loud as a group.

Even number – is any whole number that can be divided by 2 with no remainder.

The last digit of an even number will always be 0, 2, 4, 6, or 8.

Odd number – is any whole number that cannot be divided by 2 with no remainder.

The last digit of an odd number will always be 1, 3, 5, 7, or 9.

Remainder – is a number that is left after you divide a number.

Divisibility – means that a number goes evenly (with no remainder) into a number.

- Read aloud the terms and ask learners to read them on their own and then out loud as a class.

Component 4*:* ***Lesson Activity***

Time: 25 mins.

Component 4A

▪ Present a real-life situation/s wherein learners can relate.

> Rio and his brother Bill have 7 chores that mother gave for them to share equally while she is at work. Can you split them evenly without anyone doing half a chore?

- Process questions:

- Who are the two brothers who will share the chores?

-How many chores did mother gave for them to share?

-Do you think they can split the chores evenly? Why or why not?

-What if mother gave 8 chores to share, could they split it evenly? Why or why not?

Sample Answers:

Q1: Rio and his brother Bill

Q2: seven

Q3: No, the number of chores that mother gave is an odd number. If you divide 7 by 2, there is a remainder.

Q4: Yes because 8 is an even number.

Try these!

Directions: Group the class into three and distribute number cards to each group. Ask them to sort the cards into two piles to odd and even number. Let the learners present and explain their work.

34	28	32	14	55	63	75	81	90	10
101	512	313	142	150	180	317	587	129	195

Component 4B

Roll, Add and Swift Game

This game is not only to reinforces the concept but also adds an element of excitement and challenge to learning.

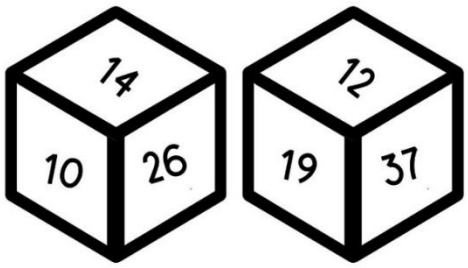
Directions:

-The class will be grouped into three.

-Members take turns in rolling the dice twice and add the numbers together.

-They will determine if the sum is odd or even.

-The group that will get the highest correct answer wins the game.

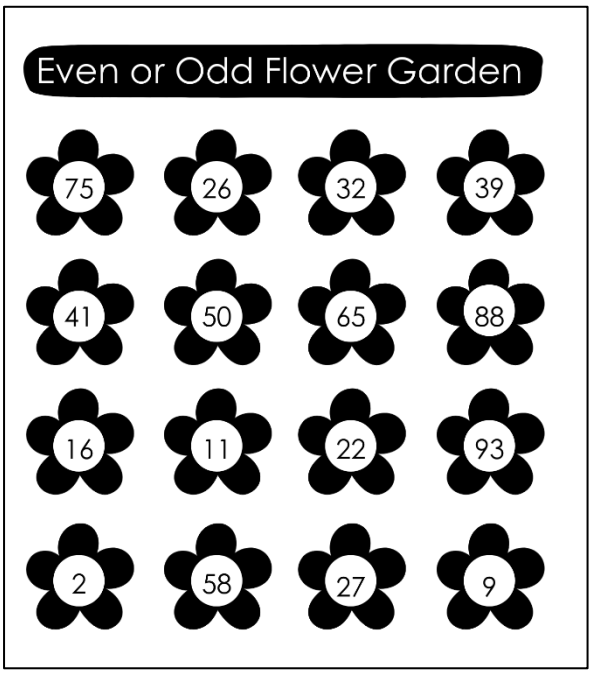


Component 4C

Odd and Even Flower Garden

Directions:

Look at the numbers at the center of the flower. Color the center flower yellow if it is an odd number, and color the center flower orange if it is even number.



Teacher Notes: Prepare a separate sheet to be distributed to the learners.

Component 5: Lesson Conclusion

Time: 5 mins.

- The focus of teaching odd and even numbers will equip students with essential skills for further learning, problem-solving, and in navigating real-world situations. Student's engagement with the lesson serves as a steppingstone in building a strong foundation in Mathematics.
- Ask learners to answer the following questions either by class discussion or writing the answers in their worksheet.

Q1. What is an even number? Odd number?

Q2. When can we say that a number is an odd or even? Explain.

Q3. What new concepts or skills did you learn on this lesson?

Q4. Did collaborating with your classmates help you understand the lesson?

In what way?

Reflection:

Q5. If numbers are grouped according to qualities, should people be grouped based on qualities too? Why or why not?

Segue to next lesson: In the next lesson, we will discuss and learn about fractions. I hope to see everybody again in our next meeting.

- Let learners know that good learners reflect on their learning.

REMINDER: Collect learners' worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 2

Visualizes, represents, and arranges dissimilar fractions in increasing order or decreasing order.
M3NS – IIId – 78.3

Key Ideas

- How do we compare fractions?
  - Look how the figures or shapes are arranged and identify which shape/s repeat over and over.
  - Identify the order of the repeated figures.

- Discuss the steps in arranging dissimilar fractions.
  - Find the least common denominator.
  - Determine the equivalent fractions sharing the LCD.
  - Arrange the numerators in increasing or decreasing order.
  - Rewrite the fractions.

Most Essential Learning Competencies

- Visualizes, represents, and arranges dissimilar fractions in increasing order or decreasing order.

Component 1: *Lesson Short Review*
Time: (5 mins.)

- Ask the class to do the review exercise in the worksheet.
- Compare the following fractions using <, > or =.

1. $\frac{2}{3}$ _____ $\frac{1}{4}$
2. $\frac{1}{6}$ _____ $\frac{5}{6}$
3. $\frac{1}{3}$ _____ $\frac{2}{3}$
4. $\frac{3}{7}$ _____ $\frac{4}{9}$
5. $\frac{2}{7}$ _____ $\frac{4}{9}$

Call volunteers to give their answers.
Answers:
1. >
2. <
3. <
4. >
5. <

Component 2: ***Lesson Purpose/Intention***

Time: (3 mins.)

Ask:

Have you experienced going to the market? What products do you usually buy? Flash some strips of paper with names of commodities sold in the market and hardware. Instruct the learners to (√) on their show-me-board if the item is sold in the market and (x) if the item is sold in the hardware.

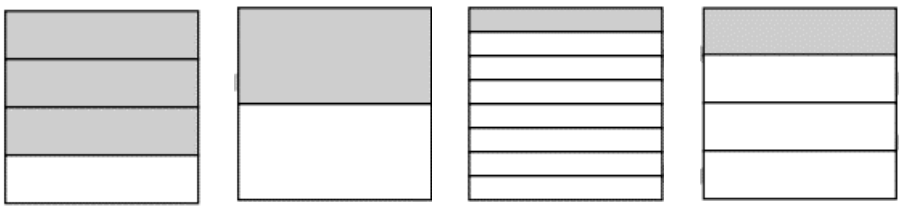
Possible Answers:

1. √
2. X
3. √
4. √
5. X

Component 3: *Lesson Language Practice*

Time: (7 mins.)

- To order fractions with the same numerators (unit fractions), compare their denominators, the greater the denominator of the fraction, the lesser the fraction.



$\frac{3}{4}$ kilogram of chicken

$\frac{1}{2}$ kilogram of sayote

$\frac{1}{8}$ kilogram of ginger

$\frac{1}{4}$ kilogram of onions

Ask the following.

1. From the drawing, which among them is the lightest? heaviest?
2. How will you arrange the fractions from lightest to heaviest? heaviest to lightest?

Answer:

lightest to heaviest – $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}, \frac{3}{4}$

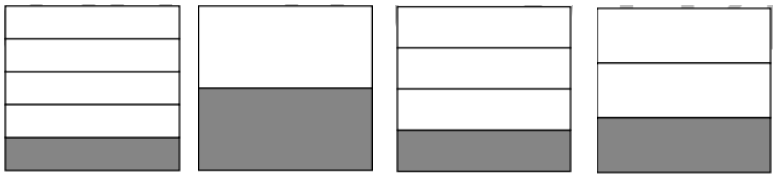
heaviest to lightest – $\frac{3}{4}, \frac{1}{2}, \frac{1}{4}, \frac{1}{8}$

Emphasize to the students that in using diagrams in comparing the value of fraction, wholes should always be of the same shape and size.

Arrange the fractions in descending order (from greatest to least).

Ask:

1. Which will be the first, the second, the third and the last?
2. What have you noticed with the set of fractions? What can you say about the numerators? denominators?
3. What happened to the fraction as the denominator increases?



$\frac{1}{5}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{3}$

Answers:

$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$

Remember: To order fractions with the same numerators (unit fractions), compare their denominators, the greater the denominator of the fraction, the lesser the fraction.

Component 4*: Lesson Activity*

Time: (25 mins.)

Component 4A

- Present the story problem to the class. Let them read and understand the problem.

Kathleen and her mother went to the market. She helped her in buying the following ingredients: $\frac{3}{4}$ kilogram of chicken, $\frac{1}{2}$ kilogram of sayote, $\frac{1}{8}$ kilogram of ginger and $\frac{1}{4}$ kilogram of onions.

Component 4B

- After reading, ask the following questions and call volunteers to give their answers.
  1. What do you think Kathleen's mother plans to cook?
  2. Do you also help your mother at home? How?
  3. What household chores do you do to help your mother?
  4. If we are going to arrange the ingredients from lightest to heaviest, which should come first? second? third? fourth? Why?

Answers:

1. tinola

2. yes, by preparing ingredients

3. answers may vary

4. $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}, \frac{3}{4}$

Component 4C

A. Arrange the group of fractions in increasing order:

1. $\frac{5}{6}, \frac{4}{8}, \frac{3}{4}, \frac{1}{5}$
2. $\frac{2}{8}, \frac{3}{10}, \frac{1}{2}, \frac{3}{5}$
3. $\frac{1}{5}, \frac{1}{10}, \frac{1}{2}, \frac{1}{7}$
4. $\frac{3}{11}, \frac{15}{11}, \frac{9}{11}, \frac{5}{11}$

B. How do you arrange the fractions in ascending order: $\frac{3}{4}, \frac{4}{9}, \frac{5}{8}, \frac{1}{5}$?

Answer: $\frac{1}{5}, \frac{4}{9}, \frac{5}{8}, \frac{3}{4}$

Remember: To order fractions with the same numerators (unit fractions), compare their denominators, the greater the denominator of the fraction, the lesser the fraction.

Component 5: Lesson Conclusion

Time: (5 mins.)

Say:

How do we arrange a set of fractions in increasing or decreasing order?

- To order or arrange fractions with the same numerators but different denominators, compare their denominators. The greater the denominator of the fraction, the lesser the fraction.

- Instruct the learners to pair with their classmates and ask them to give example of fraction equal to one and fraction greater than one and illustrate using regions, set and number line.
- After the activity, ask for volunteers to show their outputs. Provide feedback on their work.
- End the class by saying, “You all did wonderfully today. I hope to see everybody again in our next meeting”.

REMINDER: Collect learners’ worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 3

Visualizing and representing fractions that are equal to one and greater than one using regions, sets and number line.

Key Idea:

Fraction is a part of a whole or a set. It can be represented using regions, sets and number lines.

Fraction equal to one is a fraction that has a numerator equal to its denominator.

Fractions greater than one are fractions whose numerator is greater than its denominator.

Most Essential Learning Competencies

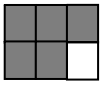
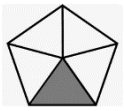
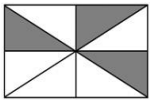
- Visualizes and represents fractions that are equal to one and greater than one using regions, sets and number line.

- Identify fractions that are equal to one and greater than one in each region, sets and number line.

Component 1: *Lesson Short Review*

Time: 7 mins.

- Ask the class to do the review exercise in the worksheet.
- Let the pupils give the equivalent fraction of each figure.

Figure	Equivalent fraction
1. 	
2. 	
3. 	
4. 	
5. 	

Call volunteers to give their answers.

Answers:

Equivalent Fraction
1. $\frac{3}{4}$
2. $\frac{2}{3}$
3. $\frac{5}{6}$
4. $\frac{5}{6}$
5. $\frac{3}{8}$

Component 2: ***Lesson Purpose/Intention***

Time: 3 mins.

- Show a picture of a watermelon.

Ask the class, “What is the name of the fruit?

Have you tried eating watermelon?

Why do we like eating watermelon during hot days?

What are the health benefits one can get from eating watermelon?”

Possible Answers:

- Watermelon is composed of more than 90% water.
- Watermelon helps keep us hydrated.
- It adds to healthy digestion.
- It could help with weight management.
- It offers a big doze of lycopene.

Component 3: *Lesson Language Practice*

Time: 5 mins.

- Read and remember the following words:
  numerator, *denominator*, *fraction equal to one*, *fraction greater than one*.
- Tell them that they will encounter the key words in the concepts to be taught.
- Assist the learners in doing the activity in the worksheet.

Through the meaning of the underline words given. Encircle the letter of the correct answer to each question.

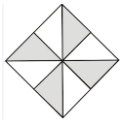
For number 1-2, refer to the figure on the  right.

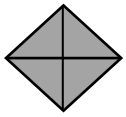
1. The **numerator** is the part of a fraction being considered or shaded. What number is the numerator in the given figure above?
   A. 3.
   B. 7
   C. 10

2. **Denominator** refers to the total number of parts the whole is divided. What number is the denominator in the given figure above?

A. 3
B. 7
C. 10

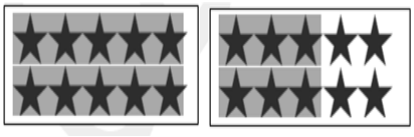
3. A **fraction equal to one** is a fraction where its numerator is equal to its denominator. Which illustration shows fraction equal to one?

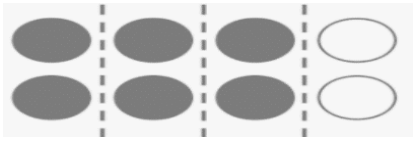
A. 

B. 

C. 

4. A **fraction greater than one** is a fraction where its numerator is greater than its denominator. Which among the illustrations shows fraction greater than one?

A. 

B. 

C. 

Answers: 1. A 2. C 3. B 4. A

Component 4*: Lesson Activity*

Time: 25 mins.

Component 4A

- Present this story problem to the class. Let them read and understand the problem.

> Last Sunday, the Briones family had an outing. While on their way to the resort, they passed by a watermelon vendor and bought 2 whole watermelons. Upon arriving in the resort, mother cut the watermelons into 8 equal parts each and chilled them in the refrigerator.
>
> After some time, Andrei, the eldest son took 6 slices and shared them with his two sisters they all eat the 6 slices. Since it was a hot day, he went back to the refrigerator and ate two more slices of them. After a while, their cousins arrived, and 6 slices were served and ate by them.
>
> How many parts of the watermelon did the children eat? What portion of the watermelon were taken from the refrigerator in all?

Component 4B

- After reading, ask the following questions and call volunteers to give their answers.

1. Who had an outing last Sunday?
2. What did they buy on their way to the resort?
3. How many whole watermelons did they buy?
4. What did mother do to the watermelons?
5. How many equal parts did mother slice on each watermelon?
6. Who took 6 slices of the watermelons and shared them with his sisters?
7. What is asked in the story problem?

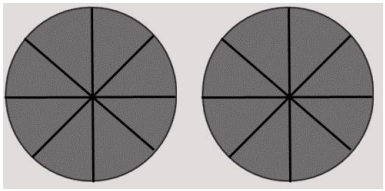
Answers:

1. It was the Briones family who had an outing last Sunday.
2. They bought watermelons.
3. There were 2 whole watermelons that they bought.
4. Mother sliced the watermelons and chilled them in the refrigerator.
5. She sliced each of the watermelons into 8 equal parts.
6. It was Andrei who took 6 slices of the watermelons and shared them with his sisters.

7. The fraction part eaten by the siblings and the fraction part taken from the refrigerator in all

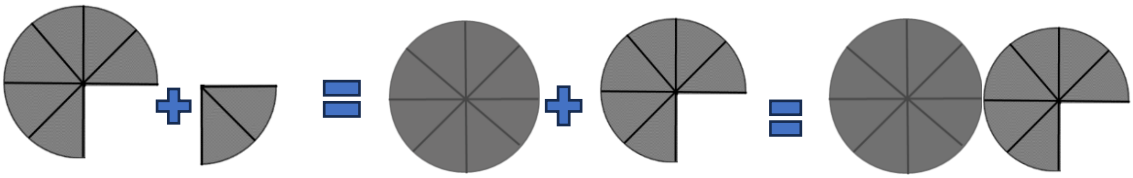
Component 4C

A. Let us illustrate the problem using **regions**.



They bought 2 whole watermelons and cut them into 8 equal parts each. When we write them into fraction, it will become $\frac{8}{8}$, and $\frac{8}{8}$. Notice that the numerators are equal to the denominators. These are fractions **equal to one.**

All in all, there were sixteen-eighths or $\mathbf{\frac{16}{8}}$**.** Notice that the numerator is greater than the denominator. This fraction is a **fraction greater than one.**



6 slices were taken by Andrei and shared with his two sisters to eat or $\frac{6}{8}$ of a watermelon.

2 more slices were taken by Andrei to eat or $\frac{2}{8}$ of a watermelon.

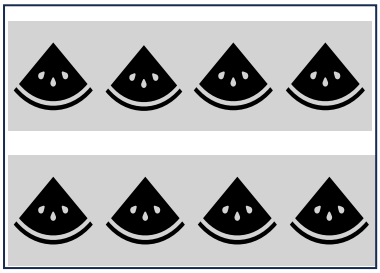
8 slices were eaten by the siblings or $\mathbf{\frac{8}{8}}$ of a watermelon.

6 slices were served and eaten by their cousins or $\frac{6}{8}$ of a watermelon.

14 slices were taken from the refrigerator or $\frac{14}{8}$ part of the watermelons.

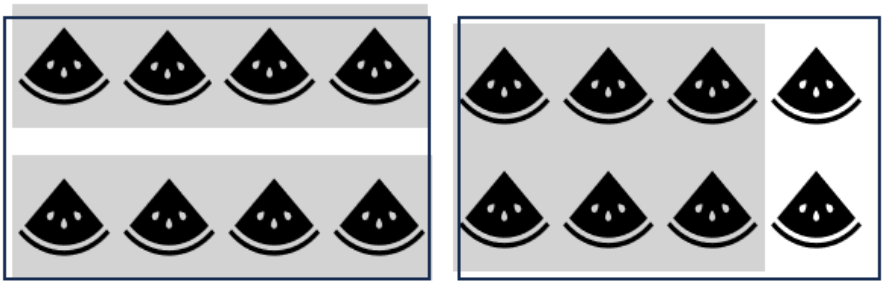
Therefore, the fraction part eaten by the siblings is $\frac{8}{8}$ and the part taken from the refrigerator was $\frac{14}{8}$ of the watermelons.

B. Let us illustrate the problem using a **set of fractions.**



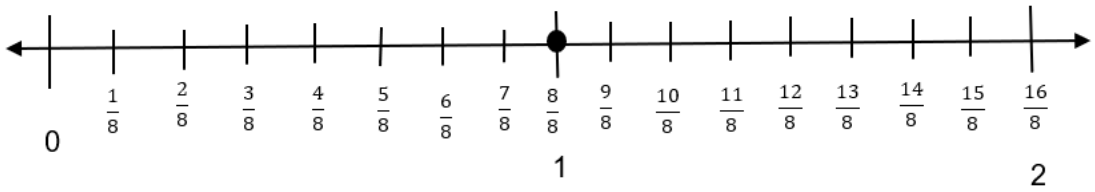
There are 8 shaded watermelons. This represents the parts eaten by the siblings. This part is the numerator.

The total slices of watermelons in a set are 8. This is the denominator. Since, the numerator and the denominator are the same, this fraction is **equal to one**.



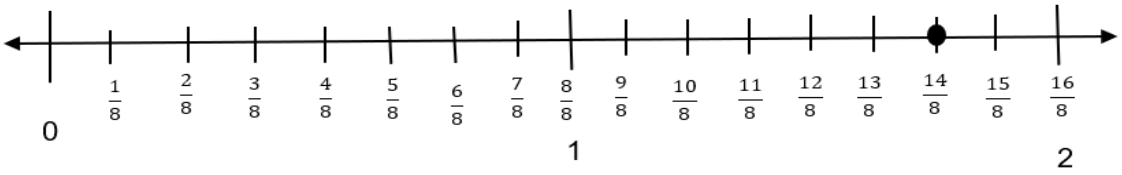
There are 14 shaded watermelons. This is the part taken from the refrigerator. There are 8 slices of watermelons in a set. 6 slices of watermelons in the other set are shaded. Therefore, the fraction of the shaded is $\frac{14}{8}$. This is fraction **greater than one**.

D. Let us illustrate the problem using **a number line**.



The segment between 0 to 1 is divided into 8 parts. When the point falls into 1, this is equal to $\frac{8}{8}$, which the numerator is the same as the denominator.

Therefore, this fraction is **equal to one**.



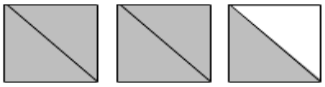
In the number line above, it shows that the point falls in $\frac{14}{8}$, which the numerator is greater than the denominator. And this fraction is **greater than one**.

Remember: Some fractions are equal to one. Other fractions are greater than one.

Let the pupils answer the following activities in their worksheet.

Activity 1:

Identify the fraction of each illustration. Circle the letter of the correct answer. Write on the blank before each number if it is a *fraction equal to one* or *fraction greater than one*.

_____ **1**. 

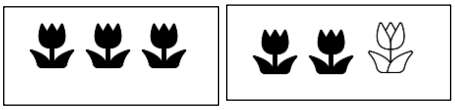
A. $\frac{5}{6}$ B. $\frac{5}{2}$ C. $\frac{5}{1}$

_____ **2.** 

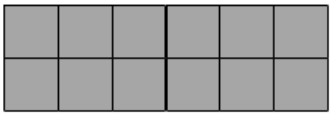
A. $\frac{1}{8}$ B. $\frac{8}{8}$ C. $\frac{8}{1}$

_____**3.** 

A. $\frac{5}{5}$ B. $\frac{2}{10}$ C. $\frac{1}{5}$

_____**4.** 

A. $\frac{1}{6}$ B. $\frac{5}{6}$ C. $\frac{5}{3}$

_____**5.** 

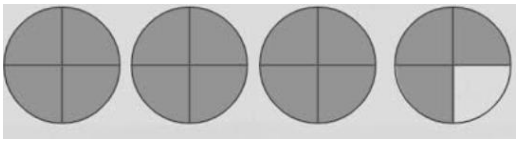
A. $\frac{12}{2}$ B. $\frac{12}{6}$ C. $\frac{12}{12}$

Answers:

1. B – fraction greater than one
2. B - fraction equal to one
3. A - fraction equal to one
4. C – fraction greater than one
5. B - fraction greater than one

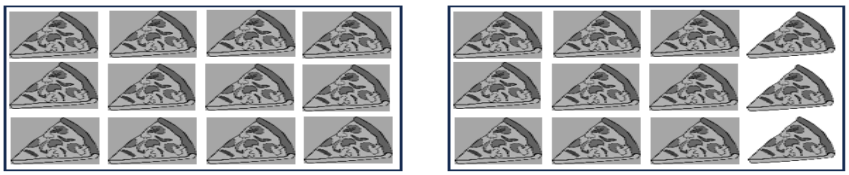
Activity 2: Read and answer each question.

1. What is the fraction name of the shaded parts? Explain.



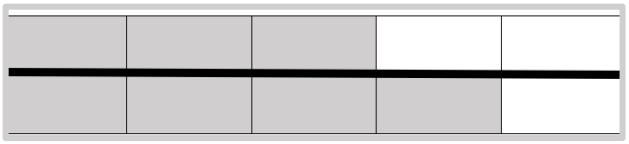
2. Is the given figure below a fraction equal to one or fraction greater than one? Why did you say so?

3. What is the fraction shown in the illustration below? Explain.



4. Which of the following shows fraction equal to one?

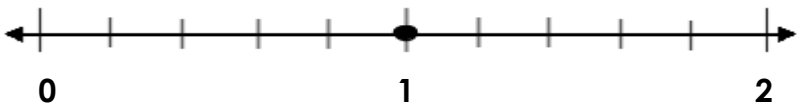
A.



B.

C.

5. What fraction is shown in the number line below?



A. $\frac{1}{2}$ B. $\frac{5}{10}$ C. $\frac{5}{5}$

Answers:

1. $\frac{15}{4}$ Each whole is divided or cut into 4 equal regions which tells the denominator. There were 15 shaded regions which tells the numerator. If 15 tells the numerator and 4 tells the denominator, therefore the fraction name of the shaded parts is $\frac{15}{4}$.
2. $\frac{5}{5}$ It is a fraction equal to one. Because there were 5 shaded parts out of 5 equal parts of a whole.
3. $\frac{21}{12}$ It is $\frac{21}{12}$. There are 12 slices of pizza in each set which tells the denominator. The shaded parts are 21 slices. These number of shaded parts tell the numerator.
4. B
5. A

Activity 3: Guess what and draw.

With your partner, identify the fraction being described then illustrate using any of the following: regions, set or number line.

1. It is a fraction equal to one. Its denominator is 7, what is it?
2. It is a fraction greater than one. Its denominator is 6 and its numerator is 7, what is it?
3. It is a fraction that shows 9 of 5 equal parts, what is it?
4. It is a fraction equal to one. Its numerator is 9, what is it?
5. It is a fraction that shows 10 of 7 equal parts, what is it?

Answers:

1.) $\frac{7}{7}$

2.) $\frac{7}{6}$

3.) $\frac{9}{5}$

4.) $\frac{9}{9}$

5.) $\frac{10}{7}$

Note: *Illustrations may vary.*

Component 5: Lesson Conclusion

Time: 5 mins.

- Say, “when the numerator and denominator is the same, it is a “**fraction equal to one**. When the numerator is greater than the denominator, it is a **fraction greater than one”**

  Then ask the question, “How can you show fraction equal to one and fraction greater than one using regions, set and number line?”

- Instruct the learners to work with their group and ask them to give examples of fractions equal to one and fraction greater than one and illustrate using regions, set and number line.
  Group 1 and 4 – illustrate using regions.
  Group 2 and 5 – illustrate using set.
  Group 3 and 6 – illustrate using number line.

- After the group activity, ask volunteers to show their outputs. Provide feedback on their work.

- Say: You all did great today. Looking forward to see you all again in our next meeting to discuss about reading and writing fractions in symbol and in words.

REMINDER: Collect learners’ worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 4

Reading and writing fractions that are equal to one and greater than one in symbols and in words.

Key Idea:

Fractions are called “fractions equal to one” when their numerators and denominators are the same.

Fractions are called “fractions more than one” when the numerators are greater than the denominators.

Fractions equal to one and greater than one can be written in words and in symbols.

Most Essential Learning Competencies

- Reads and writes unit fractions in symbols and in words.
- Reads and writes fractions equal to one or more than one in symbols and in words. **(M3NS-IIIb-76.3)**

Component 1: *Lesson Short Review*

Time: 7 mins.

This lesson is all about reading and writing fractions that are equal to one or greater than one in symbols and in words.

A fraction is equal to one if the numerator and denominator are the same.

A fraction is greater than one if the numerator is bigger than the denominator.

An example of fraction written in word is: **ten-tenths**

An example of fraction in symbol is: $\frac{10}{10}$

- Have a review on fractions equal to one and greater than 1.
- Ask the class to do the review exercise in the worksheet.

  Who am I? Draw the shaded regions on your paper then write the fraction.

  1) I am a fraction equal to one. My denominator is 5.
  2) I am a fraction that shows 9 of 8 equal parts.
  3) I am a fraction whose denominator is 4 and whose numerator is 9.
  4) I am a fraction which is neither less than 1 nor greater than 1.
  5) I am a fraction equal to one and my numerator is 10

- Call volunteers to give their answers.

Answers:

1. $\frac{5}{5}$
2. $\frac{9}{8}$
3. $\frac{9}{4}$
4. Equal to one or one whole

5. $\frac{10}{10}$

Component 2: ***Lesson Purpose/Intention***

Time: 3 mins.

Ask the class to read the problem. Let the pupils act it out. Have them answer the questions below.

> Rico cut a *bibingka* into 6 equal parts. He gave 2 pieces to each of his 3 brothers. What part did each one get?

- Talk about the story problem.
- Ask:
  1. Who cut the whole *bibingka*?
  2. Into how many parts did he cut the *bibingka*?
  3. What do you call each part?
  4. How do you write the fraction in words? in symbols?
  5. What parts were eaten by his brothers?
  6. Write the fraction in symbol and in words.

Answers:

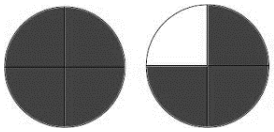
1. Rico cut the whole bibingka
2. Into 6 parts
3. $\frac{1}{6}$
4. Word: one- sixth. Symbol: $\frac{1}{6}$
5. Symbol: $\frac{6}{6}$ Word: six-sixths

Component 3: *Lesson Language Practice*

Time: 5 mins.

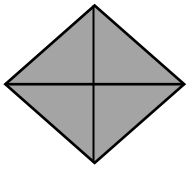
- On a strip of papers, write the following words. Post them on the chalk board: *fraction equal to one*, *fraction greater than one, and symbol.*
- Tell them that they will encounter the key words in the concepts to be taught.
- Assist the learners in doing the activity in the worksheet:

Give the meaning of the underlined words. Encircle the letter of the correct definition.



1. The shaded fraction above is $\frac{7}{4}$, and the fraction is <u>greater than one</u>.
   A. The numerator is less than the denominator.
   B. The numerator is equal to the denominator.
   C. The numerator is greater than the denominator.

2. The figure on the right shows **<u>a fraction equal to one</u>**.



   A. The numerator is less than the denominator.
   B. The numerator is equal to the denominator.
   C. The numerator is greater than the denominator.

3. The fraction $\frac{16}{10}$ is written in <u>symbol.</u>

   A. figure/number
   B. word
   C. drawing

Answers: 1. C 2. B 3. A

Component 4*: Lesson Activity*

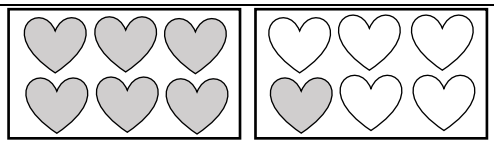
Time: 25 mins.

Component 4A

- Present this story problem to the class. Let them read and understand the problem.

Some pupils of Mrs. Santos colored a set of hearts during Valentine's Day.
How many hearts did the pupils color?

We see:



We read: $\frac{7}{6}$

We write: seven- sixths.

Component 4B

- After reading, ask the following questions and call volunteers to give their answers.
- Ask:
  1. How many hearts did they color?
  2. What do you call the number above the bar line?

3. How about the number below the bar line?
4. How do you write a fraction in symbol? in words?
5. What can you say about the numerator and the denominator of a fraction equal to one and greater than one?

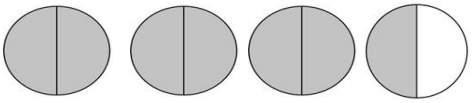
Answers:

1. 7
2. Numerator
3. Denominator
4. Symbol: $\frac{7}{6}$, Word: seven -sixths
5. Fractions equal to one have the same numerator and denominator while fractions greater than one has numerator that is greater than the denominator.

Component 4C

Activity 1

- Conduct a game.
  - Make several pairs of cards like the one shown below.



$\frac{7}{2}$

Seven- halves

$\frac{12}{12}$

twelve- twelfths

1. Shuffle the cards and place them on the pocket chart or taped on the board facing down.

2. Divide the class into two groups. Tell them that at the teacher's signal, a player from each group chooses 2 cards and matches them, the player keeps the matched cards. Otherwise, the player puts back the cards to their original position. The group with the greatest number of matched cards wins.

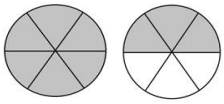
Activity 2

Directions: Encircle the letter of the correct answer.

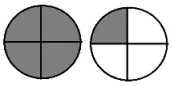
1. What is the symbol fraction of eight-fifths?

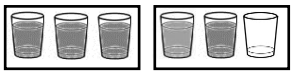
A. $\frac{10}{5}$ B. $\frac{9}{5}$ C. $\frac{8}{5}$ D. $\frac{7}{5}$

2. Which fraction shows five- fourths?

A. 

C. 

B. 

D. 

3. Which fraction shows one whole or fraction equal to one?

A. $\frac{9}{4}$ B. $\frac{7}{4}$ C. $\frac{9}{9}$ D. $\frac{6}{4}$

4. How is $\frac{9}{4}$ written in words?

A. Four-fourths
B. Five-fourths
C. Seven-fourths
D. Nine-fourths

5. What is twelve-twelfths in symbol?

A. $\frac{12}{12}$ C. $\frac{9}{12}$

B. $\frac{11}{12}$ D. $\frac{13}{12}$

Answers:

1. C
2. B
3. C
4. D
5. A

Activity 3

Match the fractions in words in column A with their symbols in column B. Write the letter of the correct answer before the number.

Column A	Column B
_____1. Seven-fifths	A. $\frac{6}{4}$
_____2. Twelve- fifths	B. $\frac{10}{8}$

_____3. Six- fourths C. $\frac{3}{3}$

_____ 4. Ten -eighths D. $\frac{7}{5}$

_____5. Three-thirds E. $\frac{12}{5}$

Answers:

1. D
2. E
3. A
4. B
5. C

Component 5: Lesson Conclusion

Time: 5 mins.

- Say, "**fraction equal to one** when the numerator and denominator is the same", **fraction greater than one** when the numerator is greater than the denominator, and these fractions can be written in words and in symbols.

Then ask the question," Can fractions equal to one and greater than one be read and written in symbols and in words? How are they read? Written?
What is the relationship between the numerator and the denominator of a fraction that is equal or greater than 1?

- Instruct the learners to pair with their classmates and ask them to give examples of fractions equal to one and fraction greater than one and write them in words and in symbols.
- After the paired activity, ask for volunteers to show their outputs. Provide feedback on their work.
- End the class by saying, "You all did wonderfully today. I hope to see everybody again in our next meeting".

REMINDER: Collect learners' worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 5

Determines the missing term/s in a given combination of continuous and repeating pattern

Key Idea

- Demonstrates understanding of continuous and repeating patterns and mathematical sentences involving multiplicationand division of whole numbers

Most Essential Learning Competency

- Determines the missing term/s in each combination of continuous and repeating pattern. (M3AL-IIIi-4)

Component 1: ***Lesson Short Review***

Time: 3 mins.

- Ask the learners to complete the mathematical equation below.
  1.) ___, ___, ___, 40, 50, ___, ___, 80, 90, 100

  2.) 3, 6, 9, ___, ___, 18, 21, 24, 27, ___, ___, ___

  3.) 5, ___, 15, ___, ___, 30, ___, ___, ___, 50

  4.) ___, ___, 12, 16, 20, ___, 28, 32, ___, ___

  5.) 7, ___, 21, ___, 35, 42, ___, 56, ___, 70

- Ask learners to volunteer to read out and explain their answers in front of the class.
- A positive reinforcement should follow every after correct answers.

Sample answers:

Q1. 10, 20, 30, 60, 70

Q2. 12, 15, 30, 33, 36

Q3. 10, 20, 25, 35, 40, 45

Q4. 4, 8, 24, 36, 40

Q5. 14, 28, 49, 63

Component 2: ***Lesson Purpose/Intention***

Time: 7 mins.

- There are things that can be found in your bag.
- Show pictures of the following: eraser, paper, pencil and notebook.
- Ask:
  What comes first? ..next and last?
- Let the learner arranged the pictures in front.
- Let another learner arrange the pictures right beside the first set with the same arrangement.
- Ask:
  - What can you say about the set of things?
  - Are the arrangement of things repeat?
  - How are they arranged?

ACTIVITY #2

LAST MAN STANDING

- The teacher will flash different patterns.
- The learners will solve for the missing number.
- The learners will write their answer on the Show Me Board.
- Each item will be solved in five (5) seconds.
- The learner/s who will get the correct answer will advance to the next round while learners who will not be able to answer it correctly will be eliminated.
- This procedure will continue until such time that there is only one learner standing.

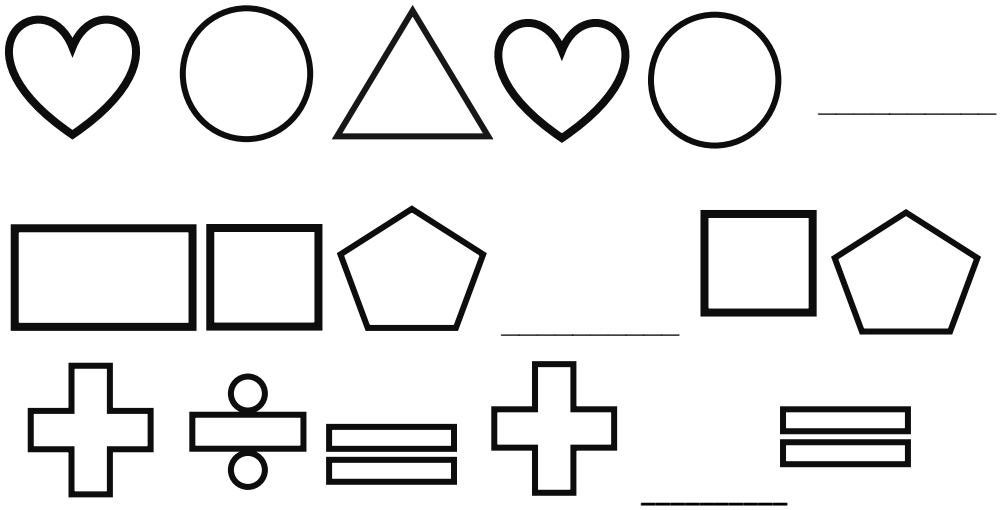
DIRECTIONS: Find the missing term in each pattern.

1. 1 4 7 _____ 13 _____
2. 2 _____ 6 _____ 10
3. 5 10 _____ 25 _____
4. 10 20 30 _____ _____ _____
5. 100 _____ 300 _____ 500 600

Component 3: *Lesson Practice*

Time: 5 mins.

- Display a pattern card showing a combination of continuous and repeating patterns.

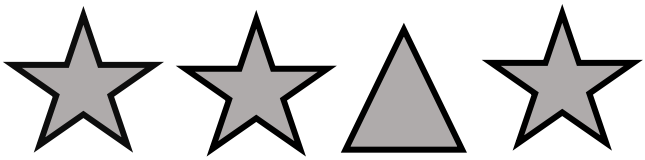


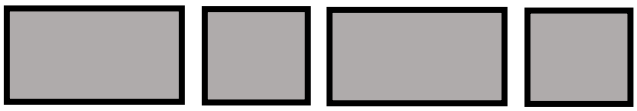
- Emphasize that patterns can have a sequence that repeats or they can continue in a logical order.
- Provide a chart and explain how the shapes represents different elements or objects in the pattern.
- Discuss that it is very important to find the rule in the pattern and to use the rule in determining the missing terms
- Emphasize that these are examples of repeating patterns. Repeating patterns are sequences of shapes or numbers that repeat constantly and regularly. One can predict the next term or missing term by looking at the regularity of the shapes or figures or numbers repeated.

ACTIVITY #3:

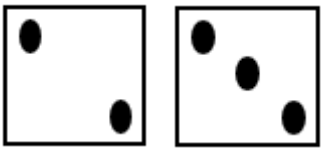
Wheel of Fortune

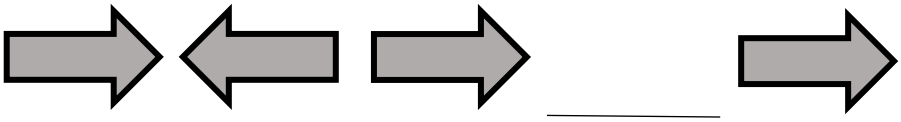
- The game is entitled “Wheel of Fortune.”
- The teacher will click the spin button.
- The pattern will be revealed.
- Learners will have to find the missing term.
- The first learner who gives the correct answer will proceed to the next round.
- The teacher will pick a name who will be the next opponent of the winning student.
- The procedure continues until the last time the wheel spins.

1.  _____

2.  _____

3.  _____

4.  _____  _____

5.  _____

Component 4*: Lesson Activity*

Time: 25 mins.

Component 4A

- Distribute different pattern cards to each group. The pattern card should include an example of continuous and repeat patters,
- Let the learners work by pair to identify the missing term/s in the pattern cards they received.
- Encourage the learners to explain their work and justify their answer by providing the rule of the pattern.

SET A:

Write the missing term to complete the pattern.

1. AA BB _____ DD EE
2. 33 66 _____ 1212 1515
3. 9 7 5 _____ 7 _____
4. CAT DOG CAT _____ _____
5. 1A 2B _____ 4D 5E

SET B

Create a pattern using the given condition below.

- The number 8 then increase the next numbers by 5.
- The number is 140 then decrease the next numbers by 420
- The number is 42 then increase by 7, decreased by 4 the next numbers.

Component 5: Lesson Conclusion

Time: 5 mins.

- Let the learners seat properly and let them share their experiences while doing the activity on finding the missing terms on the pattern.
- Ask the learners to share on which part of the lesson did they find it difficult or challenging.
- Let the learners remember the following key concepts:
  - How can you identify the missing term/s in each pattern of shapes, figures or numbers?
    - Look how the figures or shapes are arranged and identify which shape/s are repeated several times.
    - Identify the order of the repeated figures.
  - How can you find the missing number/s in each pattern or sequence?
    - Determine if the numbers are arranged in increasing or decreasing order
    - Explore the relationship between the numbers by finding the difference between numbers that are next to each other.
    - Use the difference between numbers to find the missing number.

DIRECTIONS: Read each item carefully. Choose the letter of the correct answer.

1. Fill in the blank: 5, 10, 15, __, 25

A. 18 B. 20 C. 21 D. 25

2. What comes next in the pattern: Sun, Moon, Sun, Moon, __?

A. Moon B. Planets C. Stars D. Sun

3. What is the missing term in the pattern: 7, 14, 21, __, 35

A. 24

B. 28

C. 30

D. 42

4. What comes next in the pattern: January, February, March, __?

A. April

B. July

C. June

D. May

5. Fill in the blank: Cat, Dog, Cat, Dog, __

A. Cat

B. Dog

C. Fish

D. Rabbit

REMINDER: Collect learners' worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 6

Adds 3 - to 4 -digit numbers up to three addends with sums up to 10 000 without and with regrouping *(M3NS-Id-27.6)*

Key Idea:

- To add 3- to 4 -digit numbers up to three addends with sums up to 100 without regrouping, write the addends in vertical form and align the digits according to their place value. Add from right to left starting from ones place.

- In adding 3 – to 4 -digit numbers with regrouping:
  -Add first the ones place. If the sum is more than 10, regroup the sum into equivalent tens and ones.
  -Add the tens place. If the sum is more than 10, regroup the sum into equivalent tens hundreds and tens.
  -Then, add the hundreds and thousands.

Most Essential Learning Competencies

- Adding 3-to 4-digit numbers up to three addends with sums up to 10 000 (M3NS-Id-27.6); and
- Explain the steps in adding numbers with or without regrouping.

Component 1: *Lesson Short Review*

Time: 5 mins.

- Ask the class to do the review exercise in the worksheet.
- Let the pupils arrange the given addends in column and add.

Review: Arrange the given addends in column and add.

1) 53 + 14 =

2) 44 + 12 =

3) 23 + 16 =

4) 19 + 21 =

5) 28 + 10 =

Call volunteers to give their answers.

Answers:

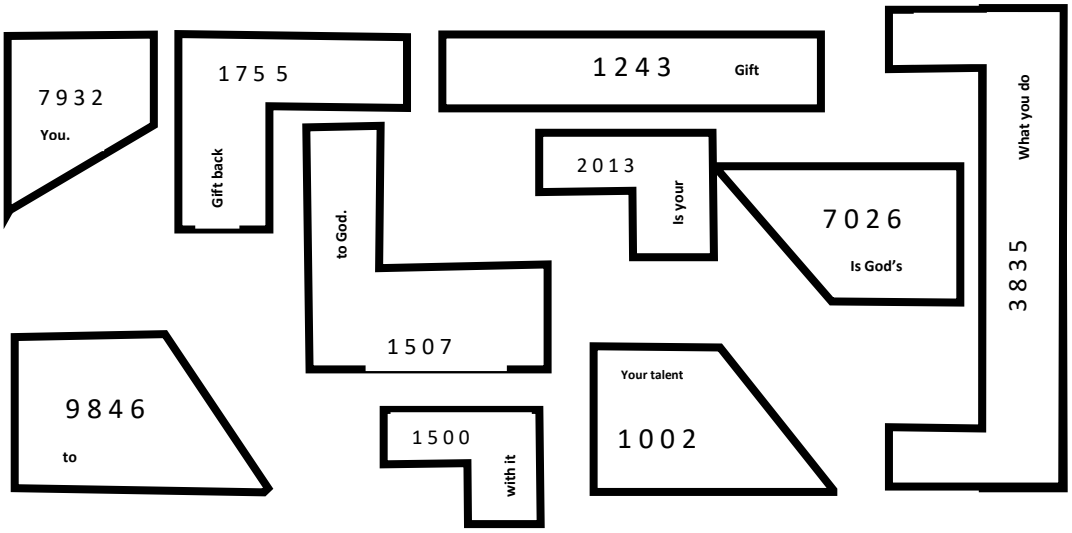
			1	
1.) 5 3	2.) 4 4	3.) 2 3	4.) 1 9	5.) 2 8
+ 1 4	+1 2	+ 1 6	+2 1	+1 0
6 7	5 6	3 9	4 0	3 8

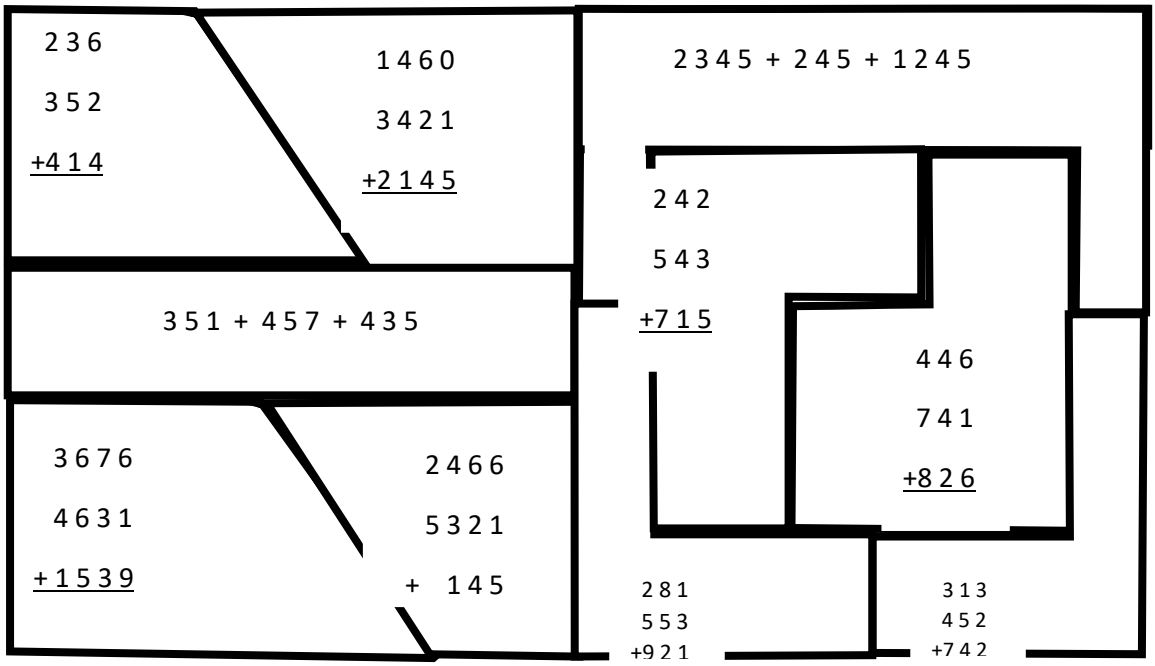
Component 2: ***Lesson Purpose/Intention***

Time: 10 mins.

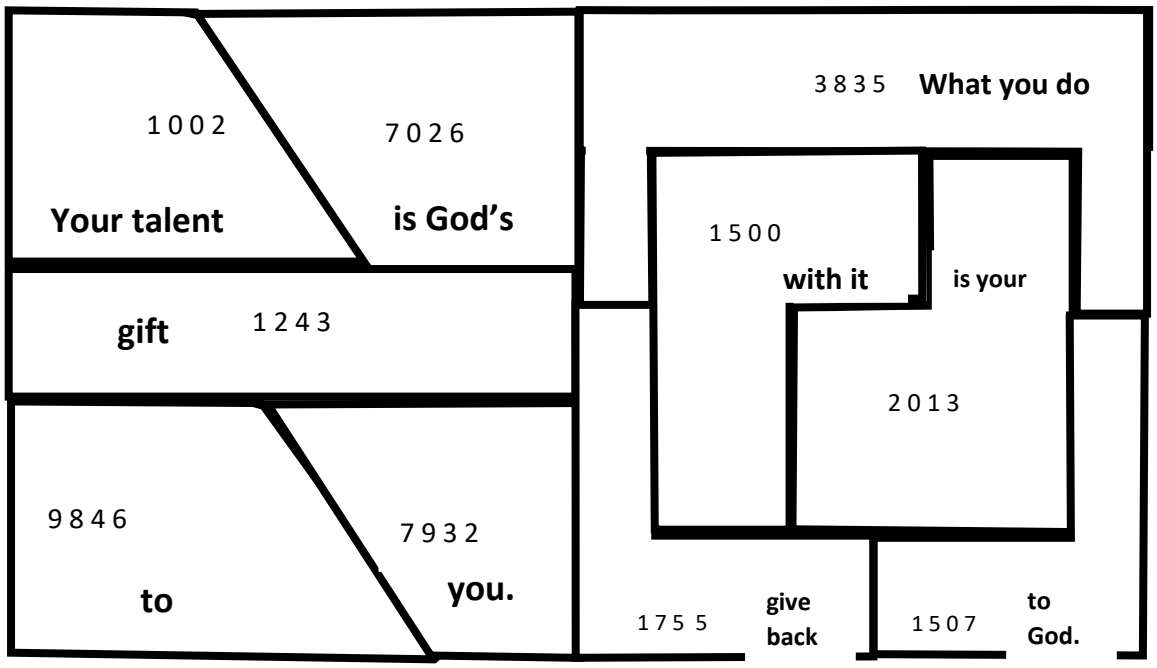
- Give this Puzzle Mania activity to your pupils.

  Directions: Solve each addition equation below. Match the equation with the puzzle piece that has the correct sum and find out the inspiring message for you.





Answer:



Message: "Your talent is God's gift to you. What you do with it, is your give back to God."

-Leo Buscaglia

Component 3: ***Lesson Language Practice***

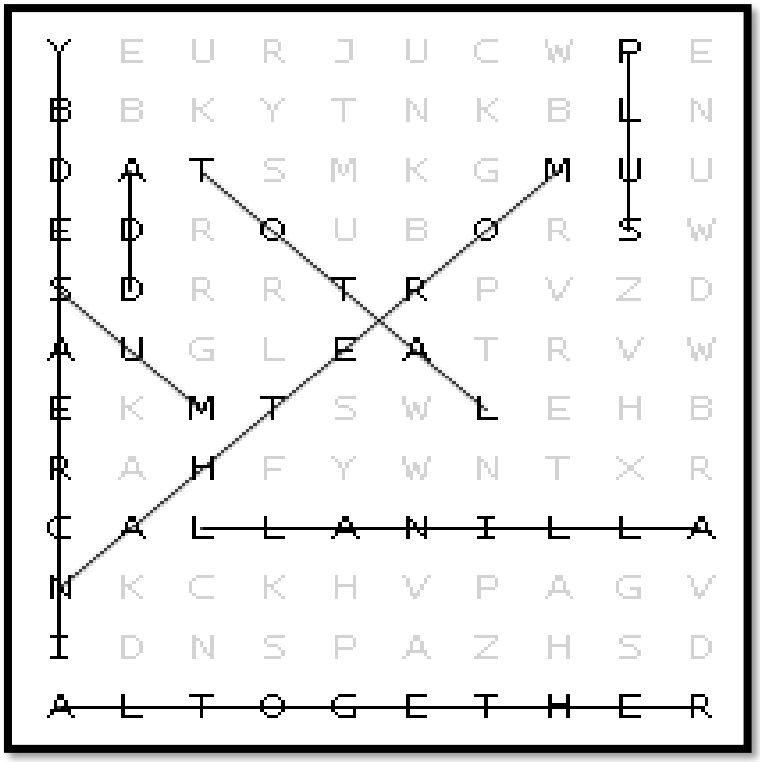
Time: 5 mins.

- Tell them that they will encounter some terms associated with addition.
- Assist the learners in doing the word hunt activity in the worksheet:

Directions: Look for some terms associated with addition.

Y	E	U	R	J	U	C	W	P	E
B	B	K	Y	T	N	K	B	L	N
D	A	T	S	M	K	G	M	U	U
E	D	R	O	U	B	O	R	S	W
S	D	R	R	T	R	P	V	Z	D
A	U	G	L	E	A	T	R	V	W
E	K	M	T	S	W	L	E	H	B
R	A	H	F	Y	W	N	T	X	R
C	A	L	L	A	N	I	L	L	A
N	K	C	K	H	V	P	A	G	V
I	D	N	S	P	A	Z	H	S	D
A	L	T	O	G	E	T	H	E	R

Answers:



ADD; SUM; PLUS; MORE THAN; INCREASED BY; ALTOGETHER; ALL IN ALL; TOTAL

Component 4*:* ***Lesson Activity***

Time: 30 mins.

Activity 4A

- Present this word problem to the class. Let them read and understand the problem.

On the weekend before Holy Week, people flocked by thousands at the bus terminals in going to their provinces. The table shows the number of passengers who left each day.

Days	***Number of Passengers***
Friday	3 205
Saturday	3 142
Palm Sunday	2 122

Activity 4B

1. How many passengers left on a Friday before Holy Week?

A) 3,205
B) 3,142
C) 2,122

2. How many passengers left on a Saturday before Holy Week?

A) 2,122
B) 3,205
C) 3,142

3. How many passengers left on Palm Sunday before Holy Week?

A) 3,142
B) 2,122
C) 2,205

4.On which day did the least number of passengers leave before Holy Week?

A) Friday
B) Saturday
C) Palm Sunday

5. On which day did the greatest number of passengers leave before Holy Week?

A) Friday
B) Saturday
C) Palm Sunday

6. What is the total number of passengers who left during the weekend before Holy Week?

A) 8,469
B) 8,459
C) 8,449

7. If there's an additional 826 passengers left on a Friday, how many passengers are left from Friday to Palm Sunday?

A) 9,295
B) 9,395
C) 9,495

- Ask volunteers to share their answers/show his/her solution on the board.

Answers:

1. A 2. C 3. B 4. C 5. A 6. A 7. A

No. 6 Possible Solution: (Adding 3-4 digits numbers without regrouping)

3 205 + 3 142 + 2 122 = ?

- Place the digits of the same place value in one column before adding the numbers.

  3 2 0 5
  3 1 4 2
+ 2 1 2 2

- Add first the digits in the ones place.

```
  3 2 0 5
  3 1 4 2
+ 2 1 2 2
-------
        9
```

- Then, add the tens.

```
  3 2 0 5
  3 1 4 2
+ 2 1 2 2
-------
      6 9
```

- Next, add the hundreds.

```
  3 2 0 5
  3 1 4 2
+ 2 1 2 2
-------
    4 6 9
```

- Finally, add the thousands.

```
  3 2 0 5
  3 1 4 2
+ 2 1 2 2
-------
  8 4 6 9
```

✓ ***8 469 are the total number of passengers left for the provinces from that bus terminal.***

No. 7 Possible Solution: (Adding 3-4 digits numbers without regrouping)
Solve first, 3 205 + 826 = __?___(Thursday passengers)

- Place the digits of the same place value in one column before adding the numbers.

```
  3 2 0 5
+   8 2 6
```

- Add the digits in the ones place.
  Regroup 11 as 1 ten and 1 one.

```
      1
  3 2 0 5
+   8 2 6
        1
```

- Add the digits in the tens place.

```
    1
  3 2 0 5
+   8 2 6
    3 1
```

- Add the digits in the hundreds place.
  Regroup 10 hundreds as 1 thousand.

```
  1   1
  3 2 0 5
+   8 2 6
  0 3 1
```

- Add the digits in the thousands place.

```
  1   1
  3 2 0 5
+   8 2 6
  4 0 3 1    (passengers on Friday)
```

4 031 + 3 142 + 2 122 = __?___

- Place the digits of the same place value in one column before adding the numbers.

```
  4 0 3 1
  3 1 4 2
+ 2 1 2 2
```

- Add the digits in the ones place.

```
  4 0 3 1
  3 1 4 2
+ 2 1 2 2
---------
        5
```

- Then, add the tens.

```
  4 0 3 1
  3 1 4 2
+ 2 1 2 2
---------
      9 5
```

- Next, add the hundreds.

```
  4 0 3 1
  3 1 4 2
+ 2 1 2 2
---------
    2 9 5
```

- Finally, add the thousands.

```
  4 0 3 1
  3 1 4 2
+ 2 1 2 2
---------
  9 2 9 5
```

✓ ***9 295 are the passengers left for the provinces from that bus terminal.***

Note: Accept other pupils' solution.

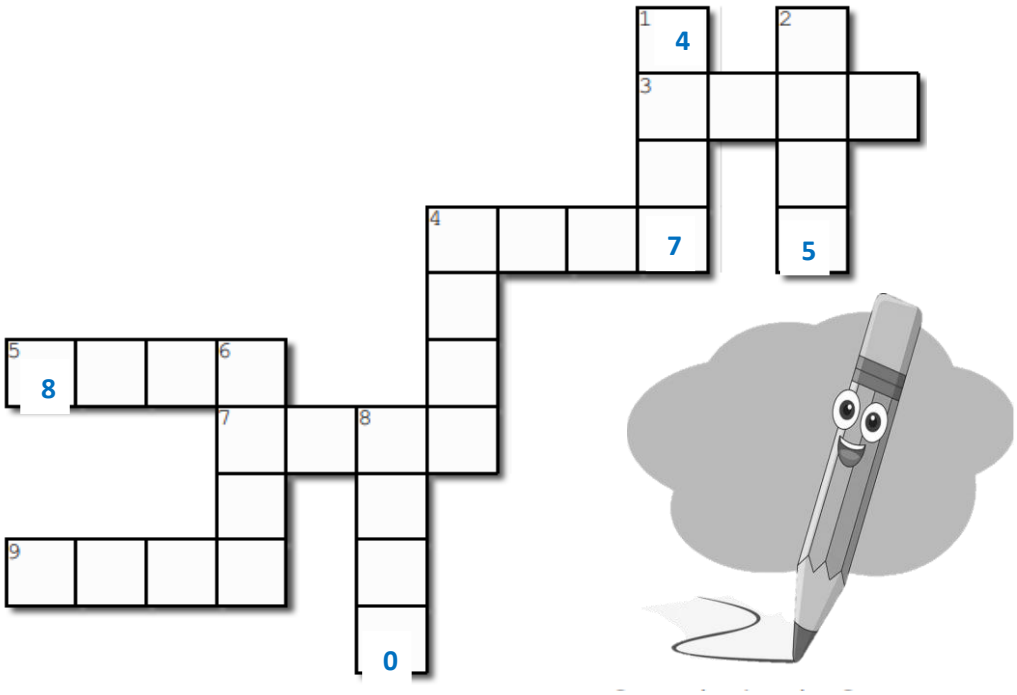
Activity 4C

Time: 5 mins.

Let the pupils answer the following activities in their worksheet. Discuss the answers.

Activity 1:

Directions: Complete the puzzle. Solve for the sum and write your answers in the corresponding boxes.



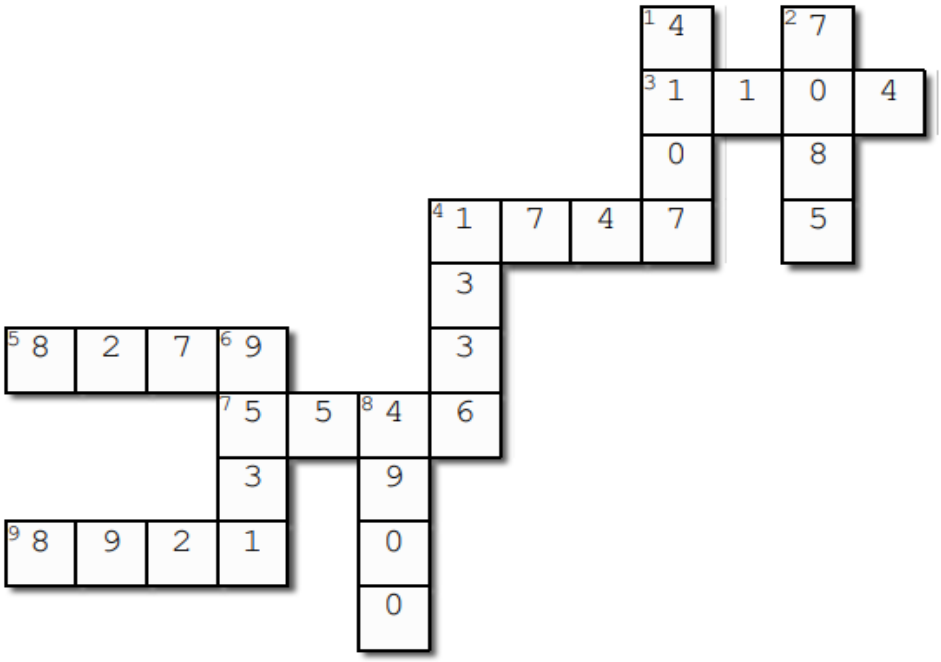
Across

3. 535 + 335 + 234
4. 211 + 823 + 713
5. 2400 + 3 345 + 2 534
7. 5134 + 311 + 101
9. 6 134 + 2631 + 156

Down

1. 3421 + 341 + 345
2. 2 411 + 4 523 + 1 51
4. 521 + 510 + 305
6. 5623 + 1456 + 2452
8. 3423 + 1256 + 221

Answer:



Across

3. 535 + 335 + 234 (**1104**)
4. 211 + 823 + 713 (**1747**)
5. 2400 + 3 345 + 2 534 (**8279**)
7. 5134 + 311 + 101 (**5546**)
9. 6 134 + 2631 + 156 (**8921**)

Down

1. 3421 + 341 + 345 (**4107**)
2. 2 411 + 4 523 + 1 51 (**7085**)
4. 521 + 510 + 305 (**1336**)
6. 5623 + 1456 + 2452 (**9531**)
8. 3423 + 1256 + 221 (**4900**)

Component 5: Lesson Conclusion

Time: 5 mins.

- When adding and regrouping a number, always think for the place value.
- In adding numbers with or without regrouping, always start adding the ones digits.

Then ask the following questions:

- If we change the order or groupings of the addends, would we get a different sum?
- What strategies should be followed when adding 3 - to 4 -digit numbers up to three addends?
- What is the key skill required when adding 3 - to 4 -digit numbers up to three addends?
- Why is it important to align numbers properly when adding 3 - to 4 -digit numbers up to three addends?

Possible Answer:

- No, because changing the groupings or the order of the addends does not affect the sum.
- Align numbers, work from right to left, regroup when necessary.
- The key skill required is to understand regrouping and carrying over when the sum exceeds a digit's maximum value.
- Aligning numbers ensures that each digit is in the correct place value column, making the addition process easier and more accurate.

▪ Say: “You all did great today. I hope to see you again in our next meeting”.

REMINDER: Collect learners’ worksheets /answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 7

Visualizes, Represents, and Subtracts 3-digit to 4-digit numbers without and with regrouping.

Key Idea

Subtraction with and without regrouping

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) $89 - 85 =$ ____

2) $98 - 63 =$ ____

3) $11 - 4 =$ ____

4) $13 - 8 =$ ____

5) $15 - 9 =$ ____

Answers

1) 4 2) 35 3) 7 4) 5 5) 6

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about subtracting numbers using concrete objects. Today we will subtract 3-digit to 4-digit numbers with or without regrouping.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Subtract, With regrouping, Without regrouping

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Angelo is tasked to find the difference between the numbers below.

a) $987 - 356$ b) $364 - 51$

He is also asking you to do the same so that he can compare his answers with your answers.

Item 2: Veronica is tasked to find the difference between the numbers below.

a) $85 - 67$ b) $1120 - 978$ c) $1{,}000 - 785$

She is also asking you to do the same so that she can compare her answer with your answer.

Part 4B

Item 1

Questions

Let us compare your answer with his.

1. What is your answer in a?

2. What is your answer in b?

Answers to Item 1

1. You can write it vertically to align the place values and subtract the numbers on the same place value.

a) 9 8 7
− 3 5 6
6 3 1

2. You can write it vertically to align the place values and subtract the numbers on the same place value.

b) 3 6 4
− 5 1
3 1 3

Part 4C

Item 2

Questions

Let us compare your answer with hers.

1. What is your answer in a?

2. What is your answer in b?

3. What is your answer in c?

Answers to Item 2

1. You can write it vertically to align the place values.

a) 8 5 *method 1*: regroup 85 becomes 7 15
− 6 7 67 is still − 6 7

1 8

method 2: Note that $9 - 5 = 10 - 6 = 8 - 4 = 4$. This means that if you add or subtract the same quantity from the minuend and the subtrahend, the difference is still the same. Thus, we can have (we need a strategy for doing this)

8 5 + 3 = 8 8
− 6 7 + 3 = 7 0
1 8

In this method, we can avoid regrouping (borrowing).

2. You can write it vertically to align the place values.

b) 1 1 2 0 *method 1*: 11 2 0 becomes 10 11 10
− 9 7 8 9 7 8 is still 9 7 8
1 4 2

method 2: 1120 + 22 = 1 1 4 2
978 + 22 = 1 0 0 0
1 4 2

3. You can write it vertically to align the place values.

c) 1 0 0 0 *method 1*: 10 0 0 becomes 9 9 10
− 7 8 5 7 8 5 is still 7 8 5
2 1 5

method 2: In this case, it is better to subtract 1 from each number.
1000 – 1 = 9 9 9
785 – 1 = 7 8 4
2 1 5

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What were the key mathematical concepts addressed in this lesson?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 8

Solves Routine and Non-routine Problems Involving Subtraction of Whole Numbers Including Money using Appropriate Problem-Solving Strategies and Tools.

Key Idea

Problem Solving Involving Subtraction

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) $85 - 72 =$ _____

2) $307 - 165 =$ _____

3) $198 - 76 =$ _____

4) $254 - 178 =$ _____

5) $500 - 385 =$ _____

Answers

1) 13 2) 142 3) 122 4) 76 5) 115

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about subtracting numbers without and with regrouping. Today we will solve problems involving subtraction.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Problem solving, subtraction

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Mariel has 320 cm of ribbon and she used 185 cm of it for her first project. She will use the remaining ribbon for her second project.

Item 2: Belle bought a pair of socks worth ₱ 169 and a set of handkerchiefs worth ₱ 245. She hands in ₱ 500 to the cashier.

Part 4B

Item 1

Questions

1. How long was Mariel's ribbon before she used it?
2. What is the length of the ribbon she used for her first project?
3. How long is left for her second project?

Answers to Item 1

1. She has 320 cm of ribbon.
2. She used 185 cm for her first project.
3. 3 2 0 cm
   − 1 8 5 cm
   1 3 5 cm is left for her second project.

Part 4C

Item 2

Questions

1. What is the total amount of items she bought?
2. How much change will she receive from the cashier?

Answers to Item 2

1. The total amount of items she bought is
   ₱ 1 6 9
   + ₱ 2 4 5
   ₱ 4 1 4

2. The change that she will receive is
   ₱ 5 0 0
   − ₱ 4 1 4
   ₱ 8 6

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What were the key mathematical concepts addressed in this lesson?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 9

Multiplies Numbers:

a. 2- to 3-digit numbers by 1-digit numbers without or with regrouping
b. 2-digit number by 2-digit numbers without or with regrouping
c. 2- to 3-digit numbers by multiples of 10 and 100

Key Idea

Multiplication

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) 8×4

2) 3×3

3) 7×7

4) 6×9

5) 8×7

Answers

1) 32 2) 9 3) 49 4) 54 5) 56

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication in the previous grade level. Today we will learn to multiply numbers with at least one digit. This strategy will always work no matter how many digits we are multiplying.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Multiplication, more than one digit.

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Teacher Vina told her pupils to give the product using any method they had learned in the previous grade level.

a) 234×2 c) 43×22

b) 234×6 d) 85×67

Item 2: Teacher Rhea told her pupils to multiply these numbers with or without using scratch paper.

I. a) 584×10 b) 584×100 c) 584×1000
II. a) 42×20 b) 42×200 c) 42×2000
III. a) 458×30 b) 458×300 c) 458×3000

Part 4B

Item 1

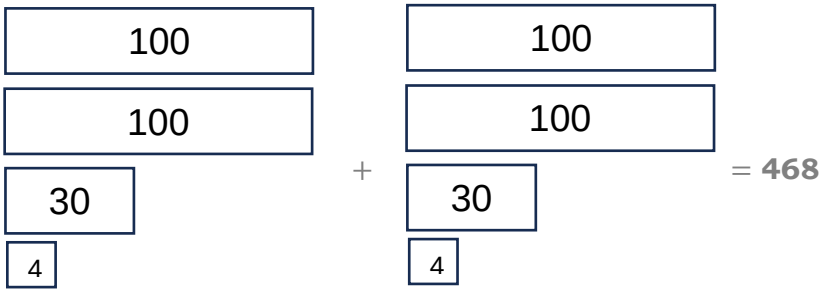
Questions

1) Give the product of each item using the method that you have learned in the previous year.

2) Which method among the methods that you used can give you the answer faster/est?

Answers to Item 1

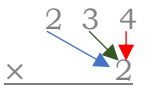
1) a) method 1: We know that $234 \times 2 = 2 \times 234$. So, we have



method 2: We know that $234 \times 2 = 2 \times 234$. So, we have

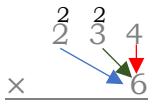
$$234 \times 2 = 234 + 234 = \mathbf{468}$$

Method 3:



4 6 8

b)



14 0 4

c) 946

d) 5,695

2) Answers may vary.

Part 4C

Item 2

Questions/Instructions

1. Give the product of each item?

2. What pattern have you observed in multiplying a number by 1, 10, 100, and 1000?

3. What pattern have you observed in multiplying a number by 2, 20, 200, and 2000?

4. What if the number of zeroes will increase? What do you think will happen to the product?

Answers to Item 2

1. I. a. 5,840 b. 58,400 c. 584,000

   II. a. 840 b. 8,400 c. 84,000

   III. a. 13,740 b. 137,400 c. 1,374,000

2. The answers may vary. – *Just multiply the number by 1 then affix the zeros.*

3. The answers may vary. – *Just multiply the number by 2 then affix the zeros.*

4. The answers may vary. – *No matter how many consecutive (trailing) zeroes we have, simply affix it to the product after multiplying the numbers before it.*

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 10

Solves Routine and Non-routine Problems Involving Multiplication without or with Addition and Subtraction of Whole numbers including money using appropriate problem-solving strategies and tools.

Key Idea

Multiply, Add, Subtract

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) 37×100

2) 74×5

3) 87×83

4) $8 \times (9 - 5)$

5) $6 \times 3 + 5 \times 4$

Answers

1) 3,700

2) 370

3) 7,221

4) 32

5) 38

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about addition, subtraction, and multiplication. Today we will learn to solve problems involving multiplication with or without addition and subtraction.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Problem Solving, Multiplication, Addition, Subtraction

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: MJ bought 5 apples which cost ₱ 26 each and 4 oranges which cost ₱ 24.

Item 2: On a farm, there are cows and hens. Each cow has 4 feet, and each hen has 2 feet.

Part 4B

Item 1

Questions

1. How much should MJ pay for 5 apples?
2. How much should MJ pay for 4 oranges?
3. How much should MJ pay for all the fruits he bought?
4. If you buy 15 apples, how much would you pay?
5. If you buy 20 oranges, how much would you pay?

Answers to Item 1

1. ₱ 130
2. ₱ 96
3. ₱ 130 + ₱ 96 = ₱ 226
4. ₱ 390
5. ₱ 480

Part 4C

Item 2

Questions

1. What is the total number of cow's feet if there are 8 cows?
2. What is the total number of hen's feet if there are 12 hens?
3. Count the total number of feet in the farm if there are 8 cows and 12 hens.
4. The total number of cows and hens on the farm is 15, and the total number of feet of cows and hens is 42. How many cows and hens are there?

Answers to Item 2

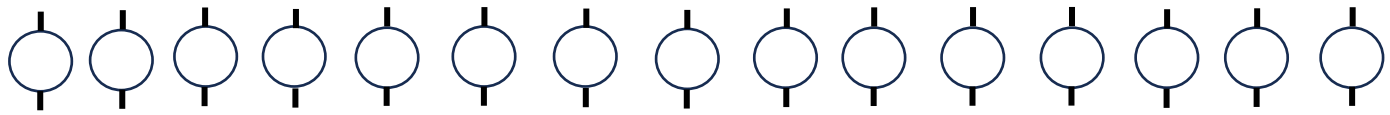
1. A cow has 4 feet and there are 8 cows. So, there are $8 \times 4 = 32$ feet.
2. A hen has 2 feet and there are 12 hens. So, there are $12 \times 2 = 24$ feet.
3. Hence, there are $8 \times 4 + 12 \times 2 = 32 + 24 = 56$ feet in total.
4. We can do a guess and check method or draw and count.

Method 1: Because there are 15 cows and hens in total we just need to try combinations like 4 cows and 11 hens, 5 cows and 10 hens and so on. Until we get a total of 42 feet.

Number of Cows	Number of Hens	Total Cow's Feet	Total Hen's Feet	Total No. of Feet
4	11	$4 \times 4 = 16$	$11 \times 2 = 22$	$16 + 22 = 38$
5	10	$5 \times 4 = 20$	$10 \times 2 = 20$	$20 + 20 = 40$
6	**9**	$6 \times 4 = 24$	$9 \times 2 = 18$	$24 + 18 = 42$

Hence, there are 6 cows and 9 hens.

Method 2: Since there are 15 cows and hens, we just need to draw 15 circles to represent all cows and hens. Then draw 2 feet for each assuming that all are hens as shown.



Observe that there are 30 feet already. To complete the 42 feet, we only need to draw 12 more feet. Since cows have 4 feet, we need to draw 2 feet to some circles until we complete the 12 remaining feet. We have

Notice that the illustration resulted in 6 circles with 4 feet and 9 circles with 2 feet. Therefore, there are 6 cows and 9 hens.

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 11

Visualizes division of numbers up to 100 by 6, 7, 8, and 9 (multiplication table of 6, 7, 8, and 9).

Key Idea

Divide

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Instructions: Complete the portion of multiplication table shown below.

Table 6	Table 7	Table 8	Table 9
6 × 6 = _____	7 × 6 = _____	8 × 6 = _____	9 × 6 = _____
6 × 7 = _____	7 × 7 = _____	8 × 7 = _____	9 × 7 = _____
6 × 8 = _____	7 × 8 = _____	8 × 8 = _____	9 × 8 = _____
6 × 9 = _____	7 × 9 = _____	8 × 9 = _____	9 × 9 = _____

Answers

Table 6	Table 7	Table 8	Table 9
6 × 6 = **36**	7 × 6 = **42**	8 × 6 = **48**	9 × 6 = **54**
6 × 7 = **42**	7 × 7 = **49**	8 × 7 = **56**	9 × 7 = **63**
6 × 8 = **48**	7 × 8 = **56**	8 × 8 = **64**	9 × 8 = **72**
6 × 9 = **54**	7 × 9 = **63**	8 × 9 = **72**	9 × 9 = **81**

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication in our next lesson. Today we will learn to divide whole numbers up to 100 with divisors 6, 7, 8, or 9.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Division, Multiplication Table

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Jboy will share 18 marbles and 6 of his friends want to have it.

Item 2: Alyssa was given a multiplication table and asked to answer the following.

a) $72 \div 8$
b) $56 \div 7$
c) $48 \div 8$
d) $90 \div 9$
e) $54 \div 6$

Part 4B

Item 1

Questions

1. Using 18 real marbles, show the number of marbles that each of his friends will get if all of them will get an equal number of marbles.

2. Using the multiplication table, how many marbles will each of his friends get if all of them will equal number of marbles?

Answers to Item 1

1. The learners/teachers can demonstrate it.

2. Since $6 \times 3 = 18$, then $18 \div 3 = 6$ and $18 \div 6 = 3$. Because Jboy needs to divide the 18 marbles to 6 of his friends, then each of them will get $18 \div 6 = 3$ marbles.

Part 4C

Item 2

Question/Instruction

Using the multiplication table, answer each item.

Answers to Item 2

a) Note that $8 \times 9 = 72$. Hence, $72 \div 8 = 9$.
b) Note that $8 \times 7 = 56$. Hence, $56 \div 7 = 8$.
c) Note that $8 \times 6 = 48$. Hence, $48 \div 8 = 6$.
d) Note that $10 \times 9 = 90$. Hence, $90 \div 9 = 10$.
e) Note that $6 \times 9 = 54$. Hence, $54 \div 6 = 9$.

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 12

Visualizes and States Basic Division Facts of Numbers up to 10.

Key Idea

Divide

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Divide each of the following.

1) If $5 \times 6 = 30$, what is $30 \div 5$?

2) $12 \div 1$

3) $0 \div 7$

4) $8 \div 8$

5) How many times can you subtract 4 from 20 until it reaches zero?

Answers

1) 6

2) 12

3) 0

4) 1

5) 5 times

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication and subtraction in our next lesson. Today we will learn the basic division facts.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Division Facts, Nonzer

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Study and understand the table below.

Dividing any number by one	Zero Divided by Any Nonzero Number	Dividing a Nonzero Number by Itself
$8 \div 1 =$	$0 \div 7 =$	$7 \div 7 =$
$15 \div 1 =$	$0 \div 8 =$	$12 \div 12 =$
$37 \div 1 =$	$0 \div 9 =$	$35 \div 35 =$

175 ÷ 1 =	0 ÷ 10 =	123 ÷ 123 =
1,765 ÷ 1 =	0 ÷ 25 =	3,124 ÷ 3,124 =

Item 2: Nick and Vince were tasked to answer 35 ÷ 7 and to show their solutions on the board.

Nick's solution: Since, 7 × 5 = 35, then 35 ÷ 7 = **5**.

Vince's solution: Using repeated subtraction,

35 – 7 = 28
28 – 7 = 21
21 – 7 = 14
14 – 7 = 7
7 – 7 = 0

Because I subtracted 7 **five times** before the number gets 0 (or less than 7), then 35 ÷ 7 = **5**.

Part 4B

Item 1

Questions

1. What do you observe in column 1?
2. What do you observe in column 2?
3. What do you observe in column 3?
4. Using your observation, answer the following.
   a. 0 ÷ 859 = _____
   b. 10,235 ÷ 10,235 = _____
   c. 98 ÷ 1 = _____

Answers to Item 1

1. If a number is divided by 1, the quotient is equal to the number itself. In symbol, say N is a number, $N \div 1 = N$.

2. If zero is divided by any number that is not zero, the quotient is equal to zero. In symbol, say N is a number, $0 \div N = 0$.

3. If a number that is not zero is divided by itself, the quotient is equal to one. In symbol, say N is a nonzero number, $N \div N = 1$.

4. a. 0 b. 1 c. 98

Part 4C

Item 2

Questions

1. What can you say about Nick's solution?
2. What can you say about Vince's solution?
3. Can you compare their solutions? Which one is easier? Which one is faster?

Answers to Item 2

Answers for numbers 1 to 3 may vary.

Some basic division facts include
- It can be done using multiplication facts
- It can be done by repeated subtraction

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 13

Divides numbers without or with remainder:

a. 2- to 3-digit numbers by 1- to 2- digit numbers

b. 2- to 3-digit numbers by 10 and 100

Key Idea

Division

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) 64 ÷ 8 =

2) 32 ÷ 4 =

3) 54 ÷ 9 =

4) 45 ÷ 5 =

5) 42 ÷ 6 =

Answers

1) 8 2) 8 3) 6 4) 9 5) 7

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication and basic division facts in the previous grade level. Today we will learn to divide 2- to 3-digit numbers by 1- to 2-digit numbers with or without remainder.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Division, Dividend, Divisor, Remainder

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Teacher Tin told her pupils to divide each of the following using any method they had learned in the previous lessons.

a) 86 ÷ 2 c) 72 ÷ 6 e) 21 ÷ 8 g) 296 ÷ 8

b) 396 ÷ 3 d) 84 ÷ 12 f) 38 ÷ 12 h) 545 ÷ 15

Item 2: Teacher Flor told her pupils to divide these numbers with or without using scratch paper.

a) 580 ÷ 10
b) 900 ÷ 100
c) 673 ÷ 10
d) 759 ÷ 100

Part 4B

Item 1

Questions/Instructions

1) If you are a pupil of teacher Tin, what will be your answer to each of the given item?

2) Are there any items having remainders? What are they?

3) Is it possible to have a remainder that is greater than the divisor?

Answers to Item 1

Use long division to answer some items.

1) a. 43 c. 12 e. 2 r.5 g. 37

b. 132 d. 7 f. 3 r.2 h. 36 r.5

2) Yes, e, f and h.

3) No

Part 4C

Item 2

Questions

1) Can you give the answer mentally?

2) If you were able to do it, how did you do it?

Answers to Item 2

1. a. 58 b. 9 c. 67 r.3 d. 7 r.59
2. Answers may vary. Here is a possible way.

In 759 ÷ 100, the divisor has **2** zeroes. So, we need to separate/remove the **last two digits** of 759 making it 7 and 59. The remaining digits is the quotient, and the last two digits is the remainder. Thus, 759 ÷ 100 = 7 r.59.

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 14

Point, Line, Line Segment, and Ray

Key Idea

Recognizes and draws a point, line, line segment and ray.
(Pagkilala at Pagguhit ng mga Points, Linya, Line Segments at Ray)

Lesson Component 1: (Lesson Short Review)
Bahagi ng Aralin 1: (Maikling Pagsusuri sa Aralin)

Time: 7 mins.
Oras: 7 minuto.

PRE-TEST
Directions: Use the given figures below to answer the following questions. Write the letter of the correct answer in the space provided.
***Panuto**: Gamitin ang mga ibinigay na larawan sa ibaba upang sagutin ang mga sumusunod na tanong. Isulat ang titik ng tamang sagot sa patlang.*

a.

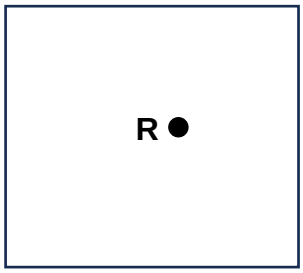


Figure 1
Larawan 1

b.

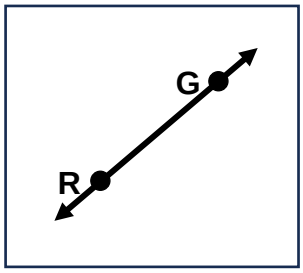


Figure 2
Larawan 2

c.

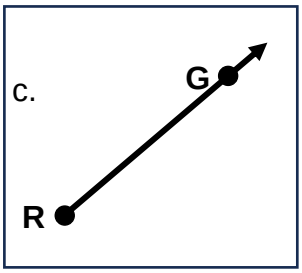


Figure 3
Larawan 3

d.

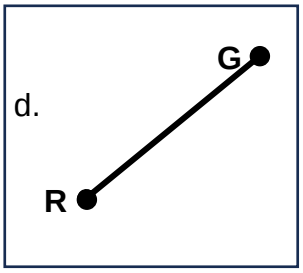


Figure 4
Larawan 4

_____ 1: Which among the following figures is a point?
1: Alin sa mga sumusunod na larawan ang point?

_____ 2: Which among the following figures is a ray?
2: Alin sa mga sumusunod na larawan ang ray?

_____ 3: Which among the following figures is a line segment?
3: Alin sa mga sumusunod na larawan ang line segment?

_____ 4: Which among the following figures is a line?
4: Alin sa mga sumusunod na larawan ang line?

Answers:
Sagot:

Q1. A Q2. C Q3. D Q4. B

Component 2: (Lesson Purpose/Intention)
Bahagi 2: (Layunin ng Aralin)

Time: 3 mins.
Oras: 3 minuto.

Teacher states:

- For us to embark on the understanding of points, lines, line segments, and rays, we will delve into the realm of geometric concepts. Our journey includes exploring the definitions and properties of these fundamental elements, offering a hands-on approach to visualizing their characteristics through drawing and identification exercises. Through this process, we aim to deepen our understanding of geometric concepts, develop spatial reasoning skills, and apply appropriate strategies to analyze and solve geometric problems in various contexts.

- *Upang tayo'y mag-umpisa sa pag-unawa ng mga point, line, line segment, at ray, tayo ay titingin sa larangan ng mga konsepto sa Geometry. Ang ating paglalakbay ay maglalaman ng pagtuklas sa mga kahulugan at katangian ng mga pangunahing elementong ito, na nag-aalok ng praktikal na paraan sa pag-visualize ng kanilang mga katangian sa pamamagitan ng mga gawaing pagguhit at pagkilala sa mga ito. Sa pamamagitan ng prosesong ito, layunin nating palalimin ang ating pag-unawa sa mga konsepto ng Geometry, lumago sa ating kakayahan sa spatial reasoning, at mag-aplay ng angkop na mga paraan sa pagsusuri at paglutas ng mga problemang Geometry sa iba't ibang konteksto.*

Component 3: (Lesson Language Practice)
Bahagi 3: (Pagsasanay sa Wika ng Aralin)

Time: 5 mins.
Oras: 5 minuto.

Keywords/terms are:
Pangunahing Salita:

Point, Line, Line Segment, and Ray.

Activity 3: Fill Me Challenge

Directions: Fill in the blanks. Write point, line, line segment, or ray to complete the sentence.
Panuto: *Punan ang mga patlang. Isulat ang point, line, line segment, o ray upang makumpleto ang pangungusap.*

1. A _____ has two endpoints.
   (Ang _____ ay may dalawang endpoints.)
2. A dot represents a _____.
   (Ang isang tuldok ay kumakatawan sa _____.)

3. A _____ has two arrowheads.
   (Ang _____ ay may dalawang arrowheads.)
4. A _____ has one endpoint and an arrowhead.
   (Ang _____ ay may isang endpoint at arrowhead.)

Answers:
Sagot:

1. Line Segment 2. Point 3. Line 4. Ray

Processing Questions:

1. What strategies did you use to identify the geometric concepts in the Fill Me Challenge?
   Anong mga pamamaraan ang ginamit mo upang matukoy ang mga konseptong geometric sa Fill Me Challenge?
2. Which geometric concepts were the most challenging to understand? Why?
   Aling mga konseptong geometric ang pinakamahirap unawain? Bakit?
3. How do these geometric concepts relate to managing shapes and making decisions related to geometry?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometry?
4. Can you provide real-life examples or situations where you might encounter these geometric concepts?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometriya?

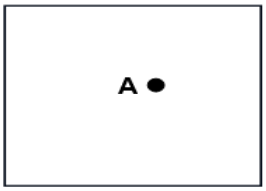
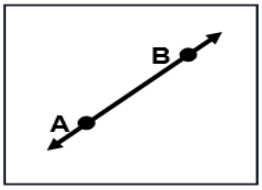
Component 4*:* (Lesson Activity)
Bahagi 4: (Gawain sa Aralin)

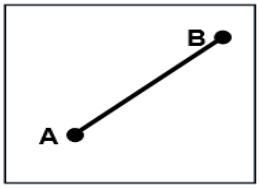
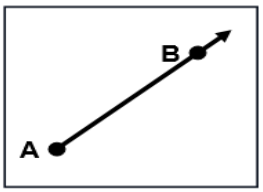
Time: 25 mins.
Oras: 25 minuto.

Component 4A

Initial Concepts *(Panimulang Konsepto)*

In the world of mathematics, the study of Point, Line, Line Segment, and Ray is important. Let's delve into these key terms that will serve as your guide in studying this lesson.
Sa mundo ng matematika ang pag aaral ng mga Point, Linya (Line), Line Segment at Ray ay mahalaga. Pag-aralan natin ang mahahalagang salitang ito na magiging gabay ninyo sa pag-aaral ng araling ito.

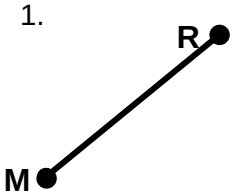
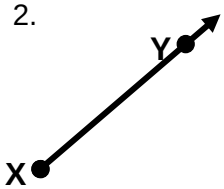
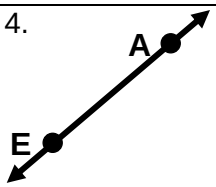
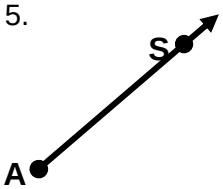
What is a Point? It is the exact position or location on a plane surface. The dot (•) represents a point. It can be named with a letter. For example: Point A, which can be written in a figure as (•A). *Ano nga ba ang Point? Ito ay ang eksaktong posisyon o lokasyon sa isang plane surface. Ang tuldok o dot (•) ay kumakatawan sa point. Ito'y maaaring pangalanan ng letra. Halimbawa: Point A, ito'y maaring isulat sa figure na ito (•A)*	
What is a Line? The figure with two arrowheads at both ends is called a line. A Line may extend endlessly in both directions. *Ano nga ba ang Linya (Line)? Ang figure na ito na may dalawang arrowhead sa magkabilang dulo ay tinatawag na linya (line). Ang Linya (Line) ay maaaring lumawig ng walang katapusan sa magkabilang dulo.*	

What is a Line Segment? A line segment is a part of a line with two endpoints. It cannot extend endlessly in any direction. *Ano nga ba ang Line Segment? Ang line segment ay bahagi ng linya na may dalawang endpoint. Hindi ito maaaring lumawig ng walang katapusan sa anumang direksyon.*	
What is a Ray? A ray is a part of a line consisting of one endpoint and an arrowhead that can extend endlessly in any direction. *Ano nga ba ang Ray? Ang ray ay bahagi ng linya na binubuo ng isang endpoint at arrowhead na maaring lumawig ng walang katapusan sa anumang direksyon.*	

Component 4B

Activity 4: Name It, Say It. Point, Line, Line Segment, and Ray

Directions: Name each point, line, ray, or line segment. Write your answer inside the box.
Panuto: *Pangalanan ang bawat point, line, ray, at line segment. Isulat ang iyong sagot sa loob ng kahon.*

1. 	2. 	3.	4. 	5. 

Answers:
Sagot:

A. 1. $\overline{MR}$ or $\overline{RM}$ 2. $\overrightarrow{XY}$ 3. •L 4. $\overleftrightarrow{AE}$ or $\overleftrightarrow{EA}$ 5. $\overrightarrow{AS}$

Component 4C

Directions: A. Draw and label each of the following. Write your answer inside the box.
Panuto: *A. Iguhit at lagyan ng label ang bawat sumusunod. Isulat ang iyong sagot sa loob ng kahon.*

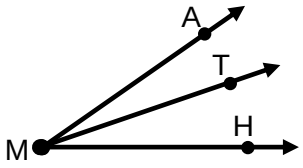
1. $\overline{FG}$	2. $\overleftrightarrow{RC}$	3. $\overrightarrow{MG}$	4. •G	5. $\overline{UV}$

B. Name what is asked in each figure.
B. Pangalanan ang hinihingi sa bawat larawan.

1. Name the different points and rays in the figure.
   Pangalanan ang iba't ibang points at rays sa larawan.

   Points: _____

   Rays: _____

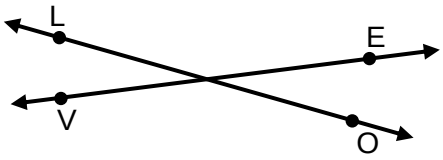


2. Name the different line segments in the figure.
   Pangalanan ang iba't ibang line segments sa larawan.

   Line Segments: _____

3. Name the different lines in the figure.
   Pangalanan ang iba't ibang lines sa larawan.

   Lines: _____



Answers:
Sagot:

A. Note: Answers may vary depending on the drawing.

B. 1. Points: •M, •A, •T, •H Rays: $\overrightarrow{MA}$, $\overrightarrow{MT}$, $\overrightarrow{MH}$
2. Line Segments: $\overline{CA}$ or $\overline{AC}$, $\overline{AR}$ or $\overline{RA}$, RE or $\overline{ER}$, $\overline{EC}$ or $\overline{CE}$
3. Lines: $\overleftrightarrow{LO}$ or $\overleftrightarrow{OL}$, $\overleftrightarrow{VE}$ or $\overleftrightarrow{EV}$

Component 5: Lesson Conclusion
Bahagi 5: Pagtatapos ng Aralin

Time: 5 mins.
Oras: 5 minuto.

The teacher facilitates student reflection and discussion, that addresses such questions as:
Ang guro ay magpapamalas ng pagmumuni-muni at pag-uusap ng mga mag-aaral, na tumutukoy sa mga sumusunod na tanong:

- What were the key mathematical concepts addressed in this lesson?
  Ano ang mga pangunahing konsepto sa matematika na tinalakay sa araling ito?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
  Paano mo ie-rate ang iyong pag-unawa sa materyal na tinatalakay sa araling ito bilang mataas, katamtaman, o mababa?
- Has the lesson helped you gain further insight into aspects of the material covered that represent strengths or weaknesses?
  Nakatulong ba ang aralin sa iyo upang mas maunawaan ang mga aspeto ng materyal na tinatalakay na nagpapakita ng lakas o kahinaan?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
  Ano ang iyong maipapaliwanag bilang pangunahing hadlang, kung meron man, sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na tinatalakay sa araling ito?

- What do you think would best assist your ongoing progress and achievement in relation to the topic area?
  Ano ang iyong iniisip na pinakamagiging tulong sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na ito?

Mathematics Grade 3 Lesson Plan 15

Perpendicular, Parallel, and Intersecting Lines

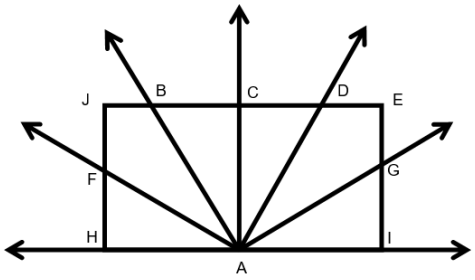
Key Idea

Recognizes and draws parallel, intersecting, and perpendicular lines.
(Nakakakilala at nagguhit ng parehong, nagtutunggali, at nangtuwirang mga linya.)

Lesson Component 1: (Lesson Short Review)
Bahagi ng Aralin 1: (Maikling Pagsusuri sa Aralin)

Time: 7 mins.
Oras: 7 minuto.

REVIEW
Directions: Observe the figure below. Answer by ticking the appropriate box whether the following statements are TRUE or FALSE.
***Panuto**: Pagmasdan ang larawan sa ibaba. Sagutin sa pamamagitan ng paglalagay ng tsek sa angkop na kahon kung ang mga sumusunod na pahayag ay TAMA o MALI.*



STATEMENTS	TRUE	FALSE
1. $\overrightarrow{AB}$ is a ray.		
2. $\overleftrightarrow{IH}$ is a line segment.		
3. •A is a point.		
4. $\overline{JE}$ is a ray.		
5. $\overrightarrow{AI}$ is a point.		

Answers:
Sagot:

1. True 2. False 3. True 4. False 5. False

Component 2: (Lesson Purpose/Intention)
Bahagi 2: (Layunin ng Aralin)

Time: 3 mins.
Oras: 3 minuto.

Teacher states:

- For us to embark on the understanding of parallel, intersecting, and perpendicular line, we will delve into the realm of geometric concepts. Our journey includes exploring the definitions and properties of these fundamental elements, offering a hands-on approach to visualizing their characteristics through drawing and identification exercises. Through this process, we aim to deepen our understanding of geometric concepts, develop spatial reasoning skills, and apply appropriate strategies to analyze and solve geometric problems in various contexts.

- *Upang tayo'y mag-umpisa sa pag-unawa ng mga parallel, intersecting, at parallel lines, tayo ay titingin sa larangan ng mga konsepto sa Geometry. Ang ating paglalakbay ay maglalaman ng pagtuklas sa mga kahulugan at katangian ng mga pangunahing elementong*

ito, na nag-aalok ng praktikal na paraan sa pag-visualize ng kanilang mga katangian sa pamamagitan ng mga gawaing pagguhit at pagkilala sa mga ito. Sa pamamagitan ng prosesong ito, layunin nating palalimin ang ating pag-unawa sa mga konsepto ng Geometry, lumago sa ating kakayahan sa spatial reasoning, at mag-aplay ng angkop na mga paraan sa pagsusuri at paglutas ng mga problemang Geometry sa iba't ibang konteksto.

Component 3: (Lesson Language Practice)
Bahagi 3: (Pagsasanay sa Wika ng Aralin)

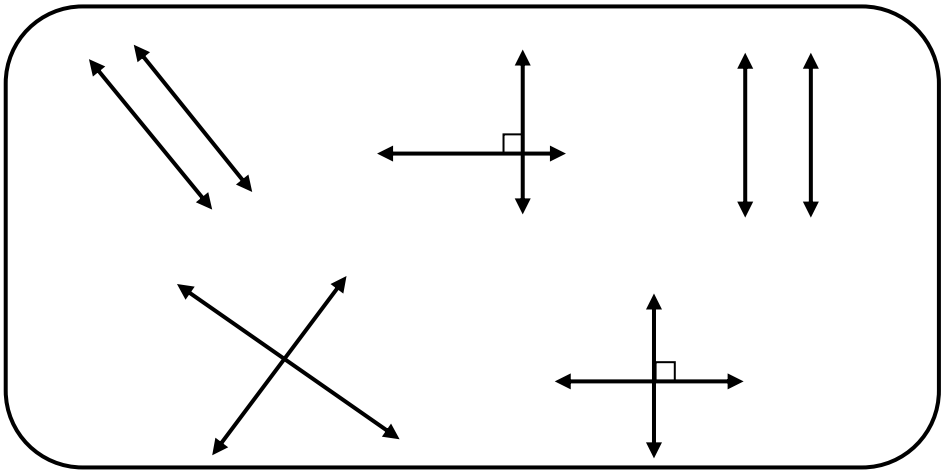
Time: 5 mins.
Oras: 5 minuto.

Keywords/terms are:
Pangunahing Salita:

Parallel, Intersecting, and Perpendicular Lines.

Activity 3: Place Me There

Directions: Identify if the given pairs of lines are parallel, intersecting, or perpendicular by redrawing them under the correct category.
Panuto: *Tukuyin kung ang mga ibinigay na pares ng mga linya ay parallel, intersecting, o perpendicular sa pamamagitan ng muling pagguhit sa kanila sa ilalim ng tamang kategorya.*



Parallel Lines	*Intersecting Lines*	*Parallel Lines*

Processing Questions:

1. What strategies did you use to identify the geometric concepts in the Place Me There?
   Anong mga pamamaraan ang ginamit mo upang matukoy ang mga konseptong geometric sa Place Me There?
2. Which geometric concepts were the most challenging to understand? Why?
   Aling mga konseptong geometric ang pinakamahirap unawain? Bakit?

3. How do these geometric concepts relate to managing shapes and making decisions related to geometry?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometry?
4. Can you provide real-life examples or situations where you might encounter these geometric concepts?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometriya?

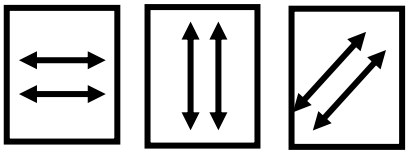
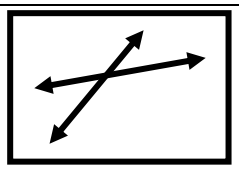
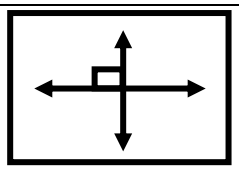
Component 4*:* (Lesson Activity)
Bahagi 4: (Gawain sa Aralin)

Time: 25 mins.
Oras: 25 minuto.

Component 4A

Initial Concepts *(Panimulang Konsepto)*

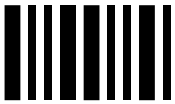
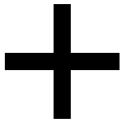
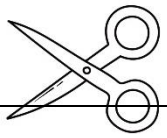
In the world of mathematics, the study of parallel, intersecting, and perpendicular lines is important. Let's delve into these key terms that will serve as your guide in studying this lesson.
Sa mundo ng matematika ang pag aaral ng mga parallel, intersecting, at perpendicular lines ay mahalaga. Pag-aralan natin ang mahahalagang salitang ito na magiging gabay ninyo sa pag-aaral ng araling ito.

What are Parallel Lines? Parallel lines – These are lines that will never intersect no matter how far we extend them. Lines that will never meet. They can be drawn horizontally, vertically, or diagonally without ever meeting. *Ito ay mga linya na hindi kailanman magtatagpo gaano man kalayo ang pagpapalawak natin sa mga ito. Iginuguhit ito ng Pahiga, Patayo at Pahilis.*	
What are Intersecting Lines? These are lines that intersect at a common point but do not form a right angle or 90 degrees. *Mga linya na nagsasalubong sa isang common point ngunit hindi ito nakabubuo ng isang right angle of 90 degrees.*	
What are Perpendicular Lines? These are lines that intersect at a common point and form a right angle. *Ito'y mga linya na nagtatagpo sa isang common point at nakabubuo ng isang right angle*	

Component 4B

Activity 4: Name It, Say It. Parallel, Intersecting, and Perpendicular Lines.

Directions: Identify if the given objects represent a parallel, intersecting, or perpendicular line. Write your answer inside the box.
Panuto: *Tukuyin kung ang mga ibinigay na bagay ay kumakatawan sa isang parallel, intersecting, o perpendicular line. Isulat ang iyong sagot sa loob ng kahon.*

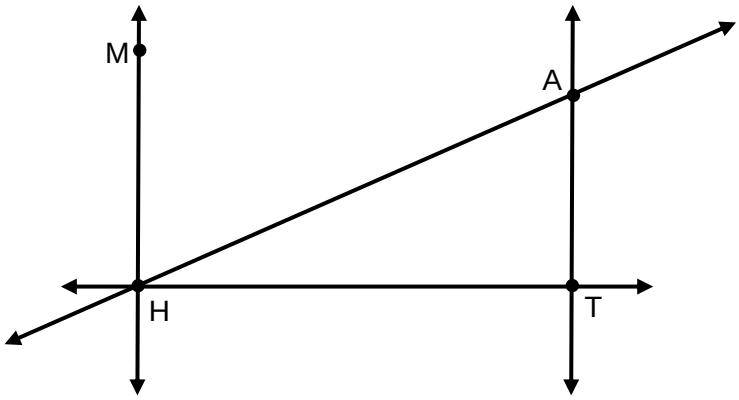
1. Barcode	2. Cross	3. Swords	4. Pillars	5. Pair of Scissors
				

Answers:
Sagot:

A. 1. Parallel 2. Perpendicular 3. Intersecting 4. Parallel 5. Intersecting

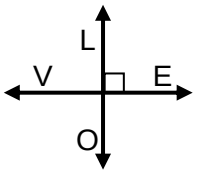
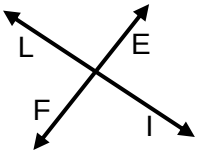
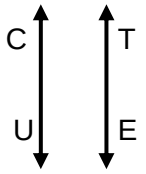
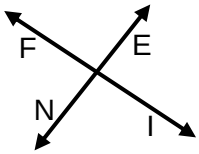
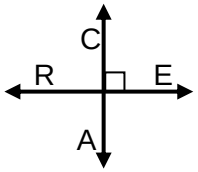
Component 4C

Directions: A. Observe the figure below. Fill in the blanks with parallel, intersecting, or perpendicular to make the statement correct.
Panuto: *A. Pagmasdan ang larawan sa ibaba. Punan ang mga blangko ng parallel, intersecting, o perpendicular para maging tama ang pahayag.*



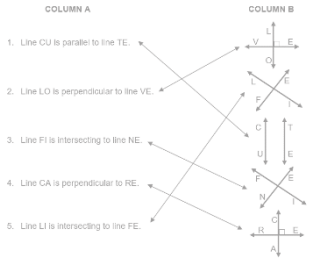
1. $\overleftrightarrow{HT}$ and $\overleftrightarrow{AT}$ are _____ lines.
2. $\overleftrightarrow{MH}$ and $\overleftrightarrow{AT}$ are _____ lines.
3. $\overleftrightarrow{MH}$ and $\overleftrightarrow{HA}$ are _____ lines.
4. $\overleftrightarrow{HA}$ and $\overleftrightarrow{AT}$ are _____ lines.
5. $\overleftrightarrow{MH}$ and $\overleftrightarrow{HT}$ are _____ lines.

B. Match the given statement in Column A to the figure it represents in Column B.
B. Itugma ang ibinigay na pahayag sa Hanay A sa larawan na kinakatawan nito sa Hanay B.

COLUMN A	**COLUMN B**
1. Line CU is parallel to line TE.	
2. Line LO is perpendicular to line VE.	
3. Line FI is intersecting to line NE.	
4. Line CA is perpendicular to RE.	
5. Line LI is intersecting to line FE.	

Answers:
Sagot:

A. 1. Perpendicular
2. Parallel
3. Intersecting
4. Intersecting
5. Perpendicular



Component 5: Lesson Conclusion
Bahagi 5: Pagtatapos ng Aralin

Time: 5 mins.
Oras: 5 minuto.

The teacher facilitates student reflection and discussion, that addresses such questions as:
Ang guro ay magpapamalas ng pagmumuni-muni at pag-uusap ng mga mag-aaral, na tumutukoy sa mga sumusunod na tanong:

- What were the key mathematical concepts addressed in this lesson?
  Ano ang mga pangunahing konsepto sa matematika na tinalakay sa araling ito?

- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
  Paano mo ie-rate ang iyong pag-unawa sa materyal na tinatalakay sa araling ito bilang mataas, katamtaman, o mababa?
- Has the lesson helped you gain further insight into aspects of the material covered that represent strengths or weaknesses?
  Nakatulong ba ang aralin sa iyo upang mas maunawaan ang mga aspeto ng materyal na tinatalakay na nagpapakita ng lakas o kahinaan?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
  Ano ang iyong maipapaliwanag bilang pangunahing hadlang, kung meron man, sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na tinatalakay sa araling ito?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?
  Ano ang iyong iniisip na pinakamagiging tulong sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na ito?

Mathematics Grade 3 Lesson Plan 16

Congruent Line Segments

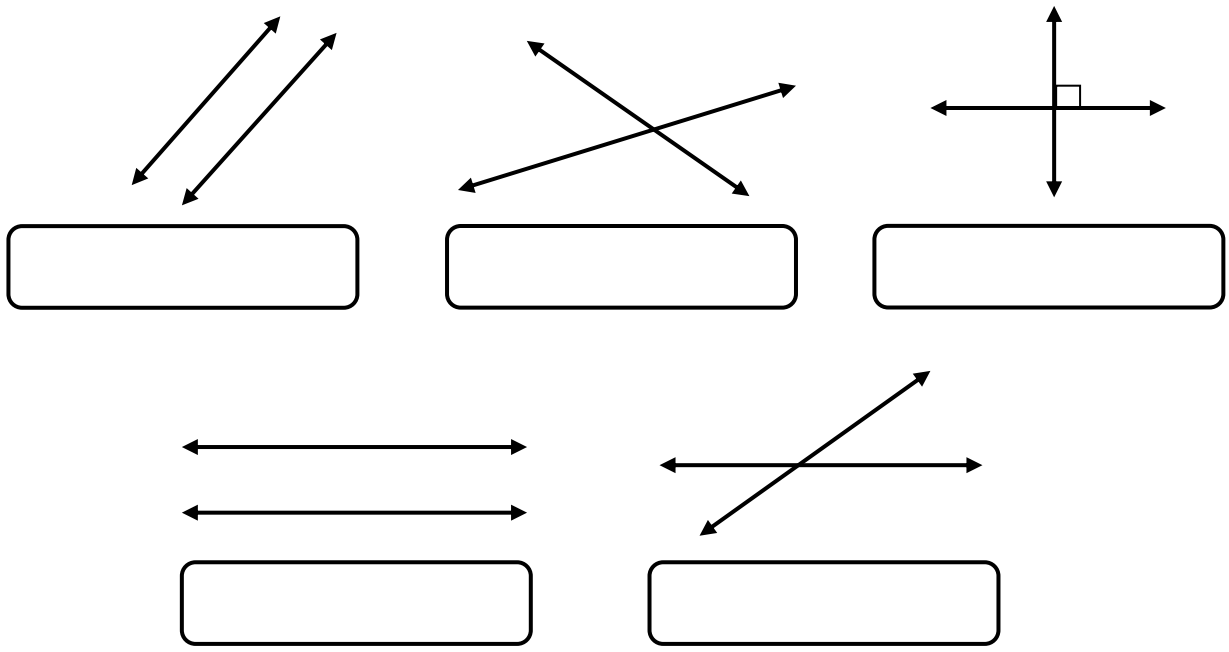
Key Idea

Visualizes, identifies, and draws congruent line segments.
(Nakikita, nakikilala, at gumuhit ng magkaparehong mga segment ng linya)

Lesson Component 1: (Lesson Short Review)
Bahagi ng Aralin 1: (Maikling Pagsusuri sa Aralin)

Time: 7 mins.
Oras: 7 minuto.

REVIEW
Directions: Identify if the given pairs of lines are parallel, intersecting, or perpendicular. Write your answer inside the box.
***Panuto**: Tukuyin kung ang mga ibinigay na pares ng mga linya ay parallel, intersecting, o perpendicular. Isulat ang iyong sagot sa loob ng kahon.*



Answers:
Sagot:

1. Parallel 2. Intersecting 3. Perpendicular 4. Parallel 5. Intersecting

Guide Questions:
Gabay na tanong:

1. How were you able to identify the given lines?
   Paano mo natukoy ang mga ibinigay na linya?

2. Provide an example of Parallel, Intersecting and Perpendicular lines *that can be seen inside the classroom.*
   Magbigay ng halimbawa ng Parallel, Intersecting at Perpendicular lines na makikita sa loob ng silid-aralan.

Component 2: (Lesson Purpose/Intention)
Bahagi 2: (Layunin ng Aralin)

Time: 3 mins.
Oras: 3 minuto.

Teacher states:

- For us to embark on the understanding of congruent line segments, we will delve into the realm of geometric concepts. Our journey includes exploring the definitions and properties of these fundamental elements, offering a hands-on approach to visualizing their characteristics through drawing and identification exercises. Through this process, we aim to deepen our understanding of geometric concepts, develop spatial reasoning skills, and apply appropriate strategies to analyze and solve geometric problems in various contexts.

- *Upang tayo'y mag-umpisa sa pag-unawa ng mga congruent line segments, tayo ay titingin sa larangan ng mga konsepto sa Geometry. Ang ating paglalakbay ay maglalaman ng pagtuklas sa mga kahulugan at katangian ng mga pangunahing elementong ito, na nag-aalok ng praktikal na paraan sa pag-visualize ng kanilang mga katangian sa pamamagitan ng mga gawaing pagguhit at pagkilala sa mga ito. Sa pamamagitan ng prosesong ito, layunin nating palalimin ang ating pag-unawa sa mga konsepto ng Geometry, lumago sa ating kakayahan sa spatial reasoning, at mag-aplay ng angkop na mga paraan sa pagsusuri at paglutas ng mga problemang Geometry sa iba't ibang konteksto.*

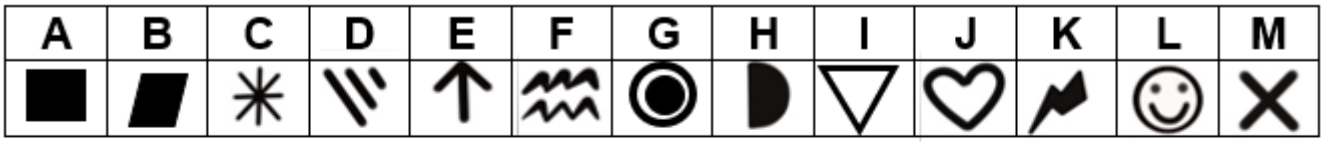
Component 3: (Lesson Language Practice)
Bahagi 3: (Pagsasanay sa Wika ng Aralin)

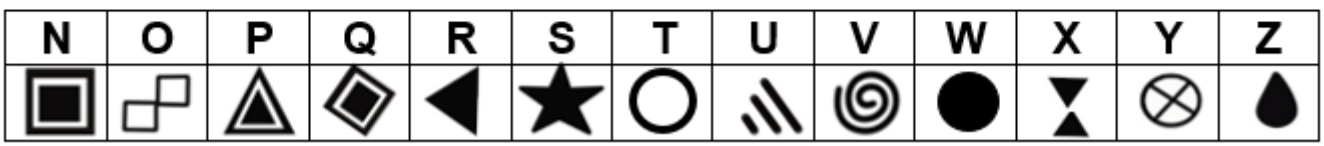
Time: 5 mins.
Oras: 5 minuto.

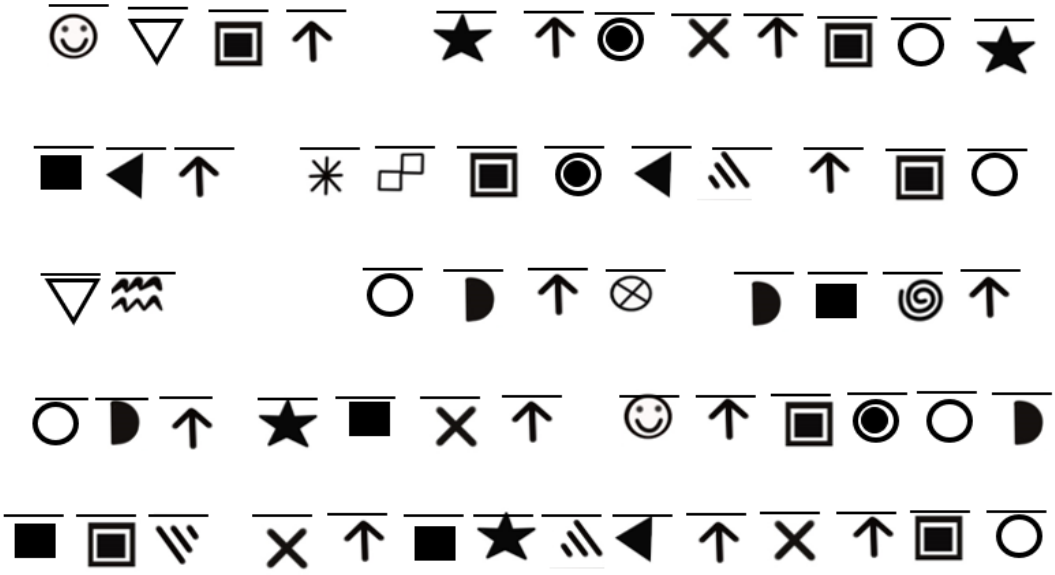
Keywords/terms are:
Pangunahing Salita:

Line, Line Segment, Congruent, Length, Measure, and Equal

Activity 3: Cryptogram Puzzle: Guess What?
Directions: Find out when the line segments are congruent by decoding the symbols below.
Panuto: *Alamin kung congruent ang mga line segments sa pamamagitan ng pag-decode ng mga simbolo sa ibaba.*







Answers:

Sagot:

Processing Questions:

1. What strategies did you use to decode the geometric concepts in the Cryptogram Puzzle: Guess What?
   Anong mga pamamaraan ang ginamit mo upang matukoy ang mga konseptong geometric sa Cryptogram Puzzle: Guess What?
2. Which geometric concepts were the most challenging to understand? Why?
   Aling mga konseptong geometric ang pinakamahirap unawain? Bakit?
3. How do these geometric concepts relate to managing shapes and making decisions related to geometry?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometry?
4. Can you provide real-life examples or situations where you might encounter these geometric concepts?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometriya?

Component 4*:* (Lesson Activity)
Bahagi 4: (Gawain sa Aralin)

Time: 25 mins.
Oras: 25 minuto.

Component 4A

Initial Concepts *(Panimulang Konsepto)*

Let us Experiment:
Mag-eksperimento Tayo:

Materials: Yarn, Pair of Scissors, Ruler/Tape Measure
Mga Kagamitan: Sinulid, Gunting, Ruler/Medida

Instructions:
Pamamaraan:

- Let the students work in pairs.
  Hayaang magtrabaho nang dalawahan ang mga mag-aaral.

- By using yarn, let one student cut a piece.
  Sa pamamagitan ng paggamit ng sinulid, hayaan ang isang mag-aaral na magputol ng piraso.

- The other student will measure the line segment made by his/her partner. Then he/she will cut another piece with the same measurement.
  Susukatin ng ibang estudyante ang line segment na ginawa ng kanyang kapareha. Pagkatapos ay puputulin niya ang isa pang piraso na may parehong sukat.

- Repeat the process by switching task.
  Ulitin ang proseso sa pamamagitan ng pagpapalit ng gawain.

Processing Questions:

1. What is a line segment?
   Ano ang isang line segment?

2. How will you determine if the line segments are equal?
   Paano mo matutukoy kung pantay ang mga line segments?

3. What do you call line segments with the same length?
   Ano ang tawag sa mga line segments na may parehong haba?

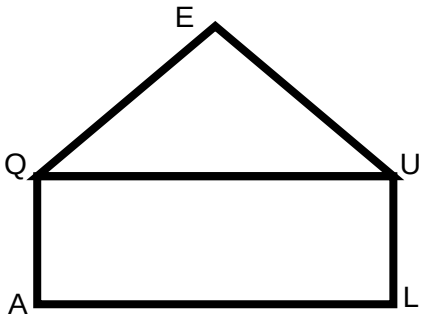
Line segments are congruent if they have the same length and measurement. To identify if line segments are congruent, measure the length using ruler and compare it. However, if there is no available measuring device, just put one line segment on the top of the other to check if they are equal or have the same length.
Ang mga line segments ay magkatugma kung pareho ang haba at sukat ng mga ito. Upang matukoy kung magkatugma ang mga line segment, sukatin ang haba gamit ang ruler at ihambing ito. Gayunpaman, kung walang magagamit na aparato sa pagsukat, maglagay lamang ng isang

line segment sa ibabaw ng isa upang tingnan kung magkapareho ang mga ito o may parehong haba.

Component 4B

Activity 4: Name It, Say It. Congruent Line Segments

Directions: Using the figure below, name three pairs of congruent line segments.
Panuto: *Gamit ang larawan sa ibaba, pangalanan ang tatlong pares ng congruent line segments.*



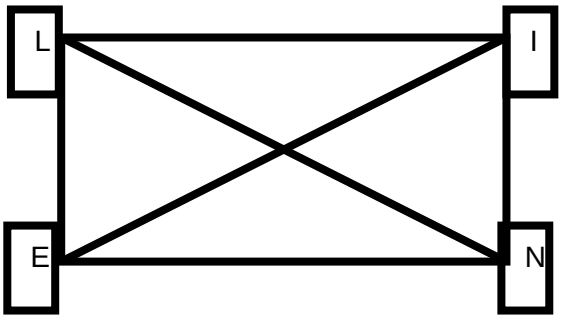
1. _____
2. _____
3. _____

Answers:
Sagot:

A. 1. $\overline{EQ}$ or $\overline{QE}$ and $\overline{EU}$ or $\overline{UE}$ 2. $\overline{QA}$ or $\overline{AQ}$ and $\overline{UL}$ or $\overline{LU}$ 3. $\overline{QU}$ or $\overline{UQ}$ and $\overline{AL}$ or $\overline{LA}$

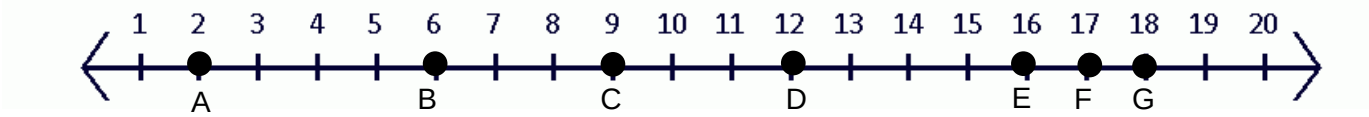
Component 4C

Directions: A. Use the figure below. Write **YES** if the line segments are congruent and **NO** if not.
Panuto: *A. Gamitin ang figure sa ibaba. Isulat ang YES kung magkatugma ang mga segment ng linya at NO kung hindi.*



_____ 1. $\overline{LI} \cong \overline{EN}$
_____ 2. $\overline{LE} \cong \overline{LI}$
_____ 3. $\overline{IE} \cong \overline{LN}$
_____ 4. $\overline{NI} \cong \overline{EL}$
_____ 5. $\overline{IL} \cong \overline{IE}$

B. Using the number line below. List down 5 pairs of congruent line segments. Put your answer inside the box.
Gamit ang number line sa ibaba. Ilista ang 5 pares ng magkaparehong mga line segments. Ilagay ang sagot sa loob ng kahon.



Answers:
Sagot:

A. *1. True 2. False 3. True 4. True 5. False*
B. $\overline{AB}$ *or* $\overline{BA}$ *and* $\overline{DE}$ *or* $\overline{ED}$, $\overline{BC}$ *or* $\overline{CB}$ *and* $\overline{CD}$ *or* $\overline{DC}$, $\overline{AC}$ *or* $\overline{CA}$ *and* $\overline{CE}$ *or* $\overline{EC}$, $\overline{EF}$ *or* $\overline{FE}$ *and* $\overline{FG}$ *or* $\overline{GF}$, $\overline{BD}$ *or* $\overline{DB}$ *and* $\overline{DG}$ *or* $\overline{GD}$

Component 5: Lesson Conclusion
Bahagi 5: Pagtatapos ng Aralin

Time: 5 mins.
Oras: 5 minuto.

The teacher facilitates student reflection and discussion, that addresses such questions as:
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  Ano ang iyong iniisip na pinakamagiging tulong sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na ito?

For inquiries or feedback, please write or call:

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