4

Lesson Exemplar
for Mathematics

Quarter 4
Lesson

5

Lesson Exemplar for Mathematics Grade 4
Quarter 4: Lesson 5 (Week 5)
SY 2024-2025

MATHEMATICS / QUARTER 4 / GRADE 4

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<td>A. Content Standards</td>
<td>The learner should have knowledge and understanding of decimal numbers and their relationship to fractions</td>
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<td>B. Performance Standards</td>
<td>By the end of the quarter, the learners are able to represent, compare, order, and round decimal numbers.</td>
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<td>C. Learning Competencies and Objectives</td>
<td><i>Learning Competency:</i>
1. determine the place value up to hundredths of a digit in a given decimal number,
2. determine the value of a digit, and
3. determine the digit of the number, given its place value.</td>
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<td>calories.info. (2024). Vegetables and legumes: calories. <i>calories.info.</i> https://www.calories.info/food/vegetables-legumes
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<td colspan="2">III.   TEACHING AND LEARNING PROCEDURE</td>
<td>NOTES TO TEACHERS</td>
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<td>A. Activating Prior Knowledge</td>
<td>DAY 1
1. Short Review
   In the last lesson, you were introduced to decimal numbers and how to read and write them.</td>
<td>There are 2 activities for the teachers to choose from:

For Activity 1, let the students read the words out loud and let them realize the difference between the two words.</td>
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Activity 1
Let's Read it out Loud!

Tens	Tenths
Hundreds	Hundredths
Thousands	Thousandths
Ten Thousands	Ten Thousandths
Hundred Thousands	Hundred Thousandths

Activity 2
Read the following decimals:
1. 0.28
2. 3.07
3. 85.14

Write the word form of the following:
1. 0.65
2. 102.75
3. 0.6

2. Feedback (Optional)

For Activity 2, the given numbers are the ones that are used in Week 4.

Reading:
1. "twenty-eight hundredths"
2. "three and seven hundredths"
3. "eighty-five and fourteen hundredths"

Writing:
1. sixty-five hundredths
2. one hundred two and seventy-five hundredths
3. six tenths

(The teacher may use different or additional examples.)

| **B. Establishing Lesson Purpose** | **1. Lesson Purpose** |
| | Let the learners observe the place value chart. |

Figure 1.

Place Value	Hundred Thousands	Ten thousands	Thousands	Hundreds	Tens	Ones		Tenths	Hundredths	Thousandths	Ten-Thousandths	Hundred-thousandths
1	1	1	1	1	1	1	.	1	1	1	1	1
Value of the digit	100,000	10,000	1,000	100	10	1	.	1/10 or .1	1/100 or .01	1/1000 or .001	1/10,000 or .001	1/1000,000 or .0001

The chart illustrates the place values and values of the digit to the left and right of the decimal point.

Let the students be familiarized with the place value to the left and right of the decimal point

	Guide Questions: 1. What have you noticed on the left and the right side of the decimal point? 2. What do you think is larger, the left or right side of the decimal point? **2. Unlocking Content Area Vocabulary** Jumbled Words Image Source: https://unsplash.com/photos/a-firetruck-on-the-street-hzNPOLsw8bs	Image Source: https://unsplash.com/photos/a-pile-of-coins-sitting-on-top-of-a-table-lxhVIucv99w ACELP - physical environment	EALUV- the monetary worth of something The word for the day is Place Value. What is Place Value? ● **Place value** is the value of a digit according to its position in the number such as ones, tens, hundreds, and so on. ● **Place value**, in mathematics, describes the value of every digit in a number depending on its position.	For Unlocking of Words, the teacher may use different pictures for jumbled words. The teacher may present the word of the day and further discuss the definition of place value in decimals or may present another meaning of place value. .
C. Developing and Deepening Understanding	**DAY 1** **SUB-TOPIC 1: Determine the place value to hundredths of a digit in a given number** **1. Explicitation** Recall the definition of place value on our Unlocking the Vocabulary. The place value is the position of the digit in a number. It determines the value that the number holds. In 12.86, the placeholder of Ones place is 2. ● Digit 1 is in the Tens place. ● Digit 8 is in the Tenths place. ● Digit 6 is in the Hundreths place.		

2. Worked Example

Example no. 1

What is the place value of each number in **12.45**?

Digit	Place Value
1	
2	
4	
5	

Example no. 2

What is the place value of each number in **1.08**?

Digit	Place Value
1	
0	
8	

Example no. 3

Write the place value of the underlined digit: **64.3**

Example no. 4

The place value of 7 in 60.97 is _____.

Example no. 5

Give the Place Value of the underlined Digit.

Digit	Place Value
11.0<u>3</u>	
0.<u>3</u>6	
11<u>8</u>.24	

3. Lesson Activity
Nutritional Decimal Dash

"Welcome to 'Nutritional Decimal Dash'! Let's explore decimals while learning about food nutrition. We'll see how decimal place values help us make healthy eating choices. Get ready to balance your plate and practice math in a fun way!"

Answer:

Example no. 1

Digit	Place Values
1	Tens
2	Ons
4	Tenths
5	Hundredths

Example no. 2

Digit	Place Values
1	Ones
0	Tenths
8	Hundredths

Example no. 3
Tenths

Example no. 4
Hundredths

Example no. 5

Digit	Place Value
11.0<u>3</u>	Hundredths
0.<u>3</u>6	Tenths
11<u>8</u>.24	Ones

The teacher can use the "Worked Example" to help students become familiar with the place value of numbers. There are various types of questions available, and the teacher may use different types

Berries

62.56 cal

"Fruit" by NatalieMaynor

Tomatoes

34.05 cal

"Fruit Veggie Art" by NicoleMariePhotoworks

Jalapeño

4.33 cal

"File:Immature jalapeno capsicum annuum var annuum.jpeg"

Mung bean

125.78 cal

"dried mung beans" by Stacy Spensley

Mushrooms

42.19 cal

"Mushrooms drawing, vintage illustration psd"

to ensure students have a comprehensive understanding of the topic. The number of questions can be adjusted based on how well the pupils comprehend the material.

In the Lesson Activity, the teacher will look at how decimals help the students understand the calories in different foods. By doing this, we'll learn how to make healthier choices. It's a fun way to practice math and learn more about staying healthy.

The teacher has the option to utilize either the worksheet or display the images on the board. Additionally, they can adjust the numbers and visuals featured in the activity as needed.

Identify which Nutritional Food contains the following:
1. _____ has 1 in the Tenths place.
2. _____ has 3 in the Tens place.
3. _____ has 3 in Hundredths place.
4. _____ has 6 in Hundredths place.
5. _____ has 1 in the Hundreds place.
6. _____ has 4 in the Tens place.
7. _____ has 2 in the Ones place.
8. _____ has 4 in the Ones place.
9. _____ has 7 in the Tenths place.
10. _____ has 2 in the Tens place.

DAY 2
SUB-TOPIC 2: Determine the value of a digit
1. Explicitation

The value of the digits in the decimal (base ten) system is based on the number ten. The value of a digit in a given decimal is the product of that digit holding the decimal place and the value of that position. Value is the Equivalent of each digit in a given number.

In the Explicitation part, the teacher needs to highlight how each digit's position in the place value determines whether it should be multiplied or divided.

Place Value	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths
Digits	1	2	3	4	.	5	6	7
Value	1,000	200	30	4	.	.5	.06	.007

In 1,234.567, the value of 4 in Ones Place is 4.
The value of 3 in the Tens place is 30.
The value of 2 in Hundreds place is 200.
The value of 1 in Thousands place is 1000.
The value of 5 in Tenths place is 0.5.
The value of 6 in the Hundredths place is .06.
The value of 7 in Thousandths place is .007.

2. Worked Example
Example no. 1
Give the value of 9 in each of the following numbers.
1. 79
2. 129
3. 10.9
4. 0.779
5. 9,004.57

Answer:
Example no. 1
1. Ones
2. Ones
3. Tenths
4. Thousandths
5. Thousands

6

Example no. 2
Give the place value and value of the underlined digit by completing the table.

	Place Value	Value
1<u></u>00.34		
23.5<u>6</u>		
0.5<u>7</u>8		
3<u>4</u>.037		
1.<u>2</u>9		

Example no. 3
The place value of 5 in 2.57 is tenths. What is the value?

Example no. 4
If 7 is in the Hundredths place, what is its value in 32.57?

Example no. 5
Lisa bought healthy fruits such as mangoes and oranges. It weighed 0.85 kilograms. What is the place value and value of 8? 5?

3. **Lesson Activity 2**
   Decimal Die Adventure!
   Students will roll a dice to generate the decimal numbers, then they have to determine the value of specific digits.

Example:
Dice roll no. 1

4	5	3	**.**	2	8
Hundreds	Tens	Ones		Tenths	Hundredths

Digit	**Value of the Digit**
4	400
5	50
3	3
1	0.1
8	0.08

Example no. 2:

	Place Value	Value
1<u></u>00.34	Hundreds	100
23.5<u>6</u>	Hundredths	.06
0.5<u>7</u>8	Hundredths	.07
3<u>4</u>.037	Ones	4
1.<u>2</u>9	Tenths	0.2

Example no. 3
0.5

Example no. 4
.07

Example no. 5
8 = tenths, value = 0.8
5 = hundredths, value = 0.05

See worksheet for the template Activity.

Circulate around the classroom to provide guidance and support as students work through the activity. Encourage students to use their knowledge of place value to determine the value of each digit within the generated decimal numbers. After completing the activity, facilitate a brief discussion where students can share their findings and any challenges they encountered. Encourage students to reflect on how

DAY 3
SUB-TOPIC 3: Determine the digit of the number given its place value
1. Explicitation
The value of the digits in the decimal (base ten) system is based on the number ten. The value of a digit in a given decimal is the product of that digit holding the decimal place and the value of that position.

Value is the Equivalent of each digit in a given number.

Place Value	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths
Digits	1	2	3	4	.	5	6	7
Value	1,000	200	30	4	.	.5	.06	.007

The digit in Thousands place is 1.
The digit in Hundreds place is 2.
The digit in Tens place is 3.
The digit in Ones place is 4.
The digit in Tenths is 5.
The digit in Hundredths place is 6.
The digit in Thousandths place is 7.

2. Worked Example
Example no. 1
The calories in 100g of apples is 49.05 kcal, Identify the digit being asked.
1. Ones
2. Tens Place
3. Thousandths
4. Hundredths
5. Tenths

Example no. 2
Given the number 104.132, what digit is in the tenths place?
1. What digit is in the thousandths place?
2. What digit is in the hundredths place?

3. Lesson Activity
Scavenger Nutritional Food Hunt Activity
In this activity, you will work in small groups to search for items around the classroom or designated area that correspond to specific place values or digits.

understanding decimal place value helps in making sense of decimal numbers.

Differentiation: To support students with different learning styles, you can change the activity by letting them roll the dice fewer times to make simpler decimal numbers. You could also give them tools like charts showing place value to help them understand better. Also, consider pairing students with different skills together so they can help each other learn.

Emphasize the difference between the digits, values and place values.

See worksheet for the template Activity.

Each item you find will have its price attached to it. Your task is to find the item that matches the given criteria and record its price.

"Ham drawing, vintage food illustration" is marked with CC0 1.0.

Ham

₱ 90.824

"Potatoes collage element, cute illustration" is marked with CC0 1.0.

Potato

₱ 16.19

"Onion collage element, cute illustration" is marked with CC0 1.0.

Onion

₱ 10.30

"Garlic collage element, cute illustration" is marked with CC0 1.0.

Garlic

₱ 8.11

"Carrot illustration clipart vector" is marked with CC0 1.0.

Carrot

₱ 12.275

"Chicken png sticker illustration, transparent" is marked with CC0 1.0.

Chicken

₱ 120.23

"Citrus, Adam's apple (Pomum Adami) illustration from Traite des" by Free Public Domain Illustrations by rawpixel is licensed under CC BY 2.0.

Citrus

₱ 10.13

"Chub (Cyprinus Jeses) illustration from The Natural History of British Fishes (1802) by Edward Donovan (1768-1837). Digitally enhanced from our own original edition." by Free Public Domain Illustrations by rawpixel is licensed under CC BY 2.0.

Fish

₱ 81.75

"Ketchup png sticker, transparent background" is marked with CC0 1.0.

Ketchup

₱ 15.20

"Bell pepper png illustration, transparent" is marked with CC0 1.0.

Bell Pepper

₱ 6.24

Scavenger Nutritional Food Hunt:
1. Find the item that represents 2 in the tenth place.
   - Item: _____
   - Price: _____
2. Find the item that represents 5 in the ones place.
   - Item: _____
   - Price: _____

3. Find the item that represents 3 in the hundredth place.
   - Item: _____
   - Price: _____

4. Find the item that represents 7 in the thousandth place.
   - Item: _____
   - Price: _____

The students will work together as a team, communicate effectively, and have fun hunting for items while practicing getting the digit given its place value.

During the activity, move around the classroom to check on students and help them if they're having trouble. If they don't understand something or can't find an item, give them guidance and explanations.

Teacher may feel free to customize the items and criteria to better suit your classroom or activity setting. Let the students enjoy the scavenger hunt!

After the scavenger hunt, facilitate a brief discussion where students can share their experiences and insights.

Answer:
1. Chicken
2. Ketchup
3. Citrus
4. Carrot
5. Fish
6. Bell Pepper
7. Ham
8. Potato
9. Onions
10. Garlic

	5. Find the item that represents 1 in the tens place.
	    ● Item: _____
	    ● Price: _____
	
	6. Find the item that represents 6 in the ones place.
	    ● Item: _____
	    ● Price: _____
	
	7. Find the item that represents 4 in the thousandth place.
	    ● Item: _____
	    ● Price: _____
	
	8. Find the item that represents 9 in the hundredth place.
	    ● Item: _____
	    ● Price: _____
	
	9. Find the item that represents 0 in the tens place.
	    ● Item: _____
	    ● Price: _____
	
	10. Find the item that represents 8 in the ones place.
	    ● Item: _____
	    ● Price: _____	

D. Making Generalizations	**1. Learners' Takeaways** **Sub-topic 1: Determine the Place Value to Hundredths** • Ask learners to reflect on the importance of understanding place value to hundredths in decimal numbers. • Have them discuss with a partner or in small groups three key concepts they have learned about determining place value to hundredths. • Allow a few minutes for discussion, and then have a few volunteers share their key takeaways with the class. **Sub-topic 2: Determine the Value of a Digit** • Ask the students what part of determining the value of the digit they found difficult or didn't fully understand. • Emphasize the importance of understanding how each digit contributes to the overall value of the number.	

	Sub-topic 3: Determine the Digit of Number, Given its Place Value	
	• Clarify any misconceptions on determining the digit.	
	• Encourage students to explain their thought process in determining the correct digit for each place value.	
	2. Reflection on Learning	
	Fill out the table below.	

Hey, I got it!	Wait! I need to practice with…	Help! I don't understand…

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION	**NOTES TO TEACHERS**
A. Evaluating Learning	**DAY 4**
	1. Formative Assessment
	I. Directions: Choose the letter of the best answer.
	1. What is the place value of 9 in 13.0694?
	A. tenths
	B. hundredths
	C. thousandths
	D. ten thousandths
	2. Give the place value of the underlined digit in 20.4901.
	A. ones
	B. tenths
	C. hundredths
	D. thousandths
	3. Which one below is equivalent to the value of 1 in 0.9182?
	A. 0.01
	B. 0.91
	C. 0.018
	D. 0.918

The right-hand "NOTES TO TEACHERS" column contains:

Answer:
I.
1. C
2. B
3. A
4. A
5. A

4. Give the value of 3 in 560.3874.
   A. 0.3
   B. 0.38
   C. 560.3
   D. 560.38

5. What is the place value of 9 in 890.435?
   A. tens
   B. hundreds
   C. thousands
   D. ten thousands

II. Directions: Identify the digit being asked and give its value.

23,113.2461		
Place Value	**Digit**	**Value of the Digit**
Hundreds Place		
Ones Place		
Tenths Place		
Hundredths Place		
Tens Place		

III. Answer the following question.

Maria went to the market to buy vegetables for her family's dinner. She purchased a bundle of carrots and a bunch of spinach, which cost a total of 58.73 pesos.

Problem: What is the place value and value of the digit 5 in the total cost of the vegetables? What about the digit 3?

2. Homework (Optional)

II.
1. 1, 100
2. 3, 3
3. 2, 0.2
4. 4, 0.04
5. 1. 10

III.
Place Value of 5:
In the decimal number 58.73, the 5 is in the tens place. Therefore, the place value of the digit 5 is 10 times 5, which equals 50 pesos.

Value of 5:
The digit 5 represents 5 tens, or 50 pesos, contributing to the total cost.

Place Value of 3:
In the decimal number 58.73, the 3 is in the hundredths place.

Therefore, the place value of the digit 3 is 1/100 times 3, which equals 0.03 pesos.

Value of 3:
The digit 3 represents 3 hundredths, or 0.03 pesos, contributing to the total cost.

B. Teacher's Remarks	Note observations on any of the following areas:	Effective Practices	Problems Encountered	The teacher may take note of some observations related to the effective practices and problems encountered after utilizing the different strategies, materials used, learner engagement, and other related stuff. Teachers may also suggest ways to improve the different activities explored/lesson exemplar.
	strategies explored			
	materials used			
	learner engagement/ interaction			
	others			

C. Teacher's Reflection	*Reflection guide or prompt can be on:*
	  • *principles behind the teaching*
	    What principles and beliefs informed my lesson?
	    Why did I teach the lesson the way I did?
	
	  • *students*
	    What roles did my students play in my lesson?
	    What did my students learn? How did they learn?
	
	  • *ways forward*
	    What could I have done differently?
	    What can I explore in the next lesson?
				Teacher's reflection in every lesson conducted/facilitated is essential and necessary to improve practice. You may also consider this as an input for the LAC/Collab sessions.