

4

Lesson Exemplar for Mathematics

Quarter 4
Lesson

1

Lesson Exemplar for Mathematics Grade 4
Quarter 4: Lesson 1 (Week 1)
SY 2024-2025

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MATHEMATICS / QUARTER 4 / GRADE 4

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	The learners should have knowledge and understanding of presentation and interpretation of data in tabular form and in a single line graph.
B. Performance Standards	By the end of the quarter, the learners are able to present and interpret data in tabular form and in a single-line graph.
C. Learning Competencies and Objectives	1. Collect data with time elements using appropriate sources. 2. Present data in a tabular form, or in a single line graph. 3. Interpret data presented in a tabular form, or in a single line graph. 4. Solve problems using data for at most two variables in a tabular form, or in a single line graph.
D. Content	Collecting, Presenting and Interpreting Data
E. Integration	Entrepreneurship

II. LEARNING RESOURCES
816 Math Blog. (2011). Sarah's graphing Post. <i>Blogger</i>. https://spmath81611.blogspot.com/2011/11/sarahs-graphing-post.html MATH Worksheets 4 Kids. (2024). Line Graph worksheets. https://www.mathworksheets4kids.com/line-graph.php Pierce, R. (2022). Line graphs. <i>Math is Fun</i>. https://www.mathsisfun.com/data/line-graphs.html

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	DAY 1 1. Short Review Activity 1: Name It! Instruction: Show the following pictures of graphs to the class. Let them identify what type of graph is it.	The activity is intended to recall the different types of graphs that can be use in presenting data. You may also ask the learners what they remember about each type of graph.

	1. Healthy Food Choices September ♥♥ October ♥♥♥♥ November ♥♥♥♥♥♥♥♥ ♥ Represents 4 sold 2. Ages of People at Family Reunion 3. Temperatures at Family Reunion 4. Pie Preferences	All pictures are sourced from https://spmath81611.blogspot.com/2011/11/sarahs-graphing-post.html Answer Key: 1. pictograph 2. bar graph 3. line graph 4. circle graph or pie chart																
B. Establishing Lesson Purpose	1. Lesson Purpose Activity 2: Analyze It! Instruction: Let the learners analyze the situation below. After that, let them answer the question that follows. Joana owns a grocery store. One of the products she sells in her store is ice cream. During the first week of May, her weekly ice cream sales are as follows: Ice Cream Sales for the Week <table><tr><th>Day</th><th>Sales</th></tr><tr><td>Monday</td><td>₱310</td></tr><tr><td>Tuesday</td><td>₱440</td></tr><tr><td>Wednesday</td><td>₱550</td></tr><tr><td>Thursday</td><td>₱420</td></tr><tr><td>Friday</td><td>₱510</td></tr><tr><td>Saturday</td><td>₱790</td></tr><tr><td>Sunday</td><td>₱820</td></tr></table>	Day	Sales	Monday	₱310	Tuesday	₱440	Wednesday	₱550	Thursday	₱420	Friday	₱510	Saturday	₱790	Sunday	₱820	Activity 2 is intended to show data presented in tabular form. Give the learners a few minutes to analyze the table before asking them the guide questions. You may also add other questions if necessary. Answer Key: a. Monday b. Sunday c. ₱3,840 d. The ice cream sales are high during weekends. e. Yes
Day	Sales																	
Monday	₱310																	
Tuesday	₱440																	
Wednesday	₱550																	
Thursday	₱420																	
Friday	₱510																	
Saturday	₱790																	
Sunday	₱820																	

	Guide Questions: 1. In what day is the ice cream sales lowest? 2. In what day is the ice cream sales highest? 3. What is the total weekly ice cream sales? 4. Base on the table, what can you infer about the ice cream sales? 5. Do you think there is another way of presenting the data in the table? 2. Unlocking Content Vocabulary After accomplishing Activity 2, introduce the following mathematical concepts: 1. Data is a collection of facts and figures that can be in numerical or non-numerical form. 2. Data collection refers to the systematic process of gathering, measuring, and recording data. This may be done through surveys, interviews, and observations. 3. A table is an arrangement of data, typically in rows and columns, that summarizes it in easy-to-understand format. 4. Line graph is used to display data that shows change over time as series of data points connected by a straight line segments.	
C. Developing and Deepening Understanding	DAY 2 1. Explicitation Introduce the steps in presenting data in tabular form. In presenting data in tabular form: 1. Determine the needed number of columns and rows. 2. Label properly the first row of the table depending on the data collected (You may also use the first column for this). 3. Include a title that briefly describes that data presented. 2. Worked Example Jaychelle, a resident of Liliw, interviewed the owner of Badong's Footwear to determine number of pairs of slippers they sold each month last 2022. According to the owner, they sold 125 pairs in January, 200 pairs in February, 175 pairs in March, 475 pairs in April, 50 pairs in May, 100 pairs in June, 300 pairs in July, 150 pairs in August, 150 pairs in September, 50 pairs in October, 350 pairs in November, and 400 pairs in December. Present the data collected using a table.	Ask the learners first the question, "How did Jaychelle collected the number of pairs of slippers sold each month of 2022?" This is to emphasize that one method of collecting

Solution: First, decide on the number of rows and columns needed. You may use 2 columns for the month and number of pairs sold and 13 rows (first row for the label and the remaining rows for the months).

Then, you may use Month and Pairs for the label of the first row. Allow the learners to complete the data for each column.

Month	Pairs
January	125
February	200
March	175
April	475
May	50
June	100
July	300
August	150
September	150
October	50
November	350
December	400

Lastly, include a title that briefly describes the table.

Pairs of Slippers Sold per Month (2022)

Month	Pairs
January	125
February	200
March	175
April	475
May	50
June	100
July	300
August	150
September	150
October	50
November	350
December	400

data is through interviews. Remind learners of the proper ways of interviewing and the value of respect while conducting the interview.

Prepare beforehand a blank table where the learners can write down the labels and the data from the situation in example 1.

You may also use other brief titles for the table as long as it describes the data presented. Get ideas from the learners.

The teacher may also emphasize the value of entrepreneurial mindset among learners.

Emphasize that based on the situation, the data was collected through observation. Remind the learners in proper

DAY 3

1. Explicitation

Introduce the steps in presenting data in single line graph. In presenting data as a single line graph:

1. Draw a vertical scale with tick marks. Label the tick marks and give the scale a label.
2. Draw a horizontal scale with tick marks. Label the tick marks and give the scale a label.
3. Plot a dot in each data value.
4. Connect the dots and give the graph a title.

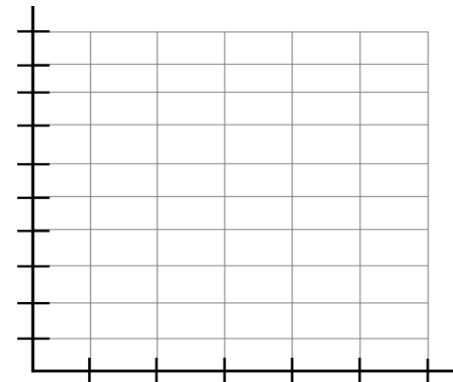
2. Worked Example

Your teacher in Home Economics wanted you to determine the number of sari-sari stores in the six barangays of your municipality. The table below shows your observation:

No. of Sari-sari Stores per Barangay	
Barangay	Sari-sari Stores
Kanlurang Bukal	10
Ilayang Palina	3
Maslun	5
Burgos	7
Oples	1
Masikap	4

Present the data using a single line graph.

Solution: First create a horizontal and vertical scale with tick marks. Label the tick marks and label the scale. (Note: Data presented as numbers should be in the horizontal scale)



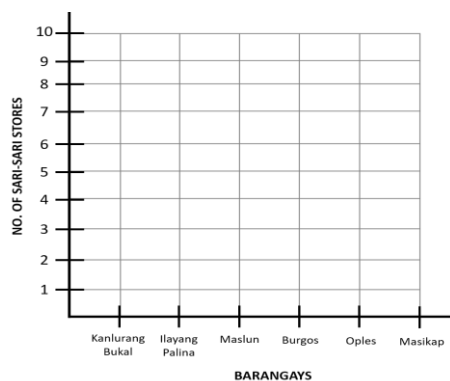
ways of observation to ensure that accurate data will be collected.

You may prepare this beforehand by printing it or drawing it on a manila paper. Let the learners write down the labels one by one.

Note: You may access the images use for the line graph thru the link below or by scanning the QR code:

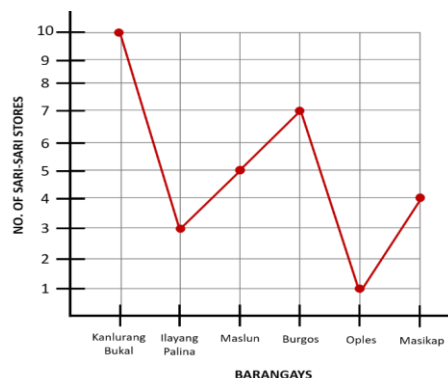
<http://tinyurl.com/my-line-graph>





Next is to plot each data value then connect it. Lastly, give it a title.

Sari-sari Stores per Barangay



DAY 4

3. Lesson Activity

Activity 3: Draw and Interpret (See Worksheet Activity 1)

Instruction: Let the learners analyze the situation below. After that let them draw a line graph and answer the questions that follows.

A mini zoo recorded the number of their visitors for six days.

This is how it will look like once the learners completed all the necessary labels.

Ask the learners about the challenges they encounter while plotting the points. Make sure to correct misconceptions and confusions if there are any.

For this part, you may plot the first data value as an example, then let the learners do the rest including the part of connecting each data point. Once completed, this is how the graph will look like.

Note: You may add more examples if needed.

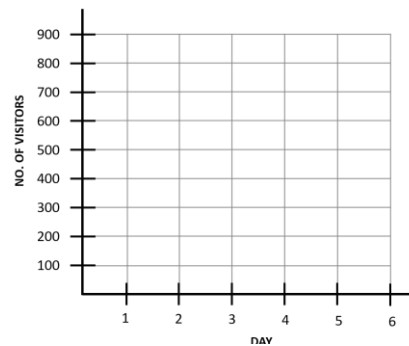
Provide enough time for the learners to accomplish this activity.

You may adjust the indicated time in the worksheet for this activity if necessary.

Day	Number of Visitors
1	200
2	600
3	400
4	350
5	800
6	500

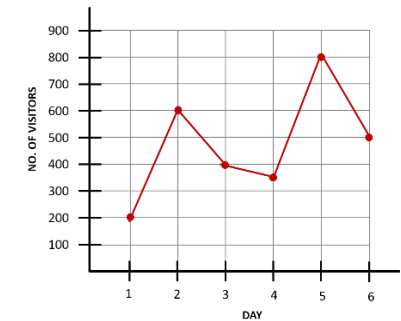
Draw a line graph that represents the record of the mini zoo.

ZOO VISITORS



1. How many visitors were there on Day 3?
2. How many more visitors were there on Day 5 than on Day 1?
3. How many fewer visitors were there on Day 6 than on Day 2?
4. How many days did the zoo have fewer than 500 visitors?
5. If the ticket per visitor cost ₱150, how much is the ticket sale on Day 1?

Answer Key:



1. 400
2. 600
3. 100
4. 3 days
5. ₱30 000

D. Making Generalizations

DAY 4

1. Learners' Takeaways and Reflection on Learning Closing the Loop!

Instruction: Let the learners answer the following questions.

1. What are the key concepts of our lesson?
2. Which part of the lesson is the easiest for you? Why?
3. Which part of the lesson is the hardest for you? Why?
4. How are we as a class today?

The activity is intended to determine what the learners have learned as well as to give feedback to their experiences during the lesson. Allot enough time to listen and process the responses of your learners. You may also add questions if needed.

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION	NOTES TO TEACHERS												
A. Evaluating Learning DAY 5 1. Formative Assessment Activity 4. Interpret It! (See Worksheet Activity 2) Instruction: Let the learners analyze the situation presented on a line graph. After that, let them answer the questions that follows. George works as a salesman in an authorized car showroom. He records the number of cars he sold in five days (Monday to Friday) on a line graph. Car Sales <table border="1"> <caption>Car Sales Data</caption> <thead> <tr> <th>Day</th> <th>Number of cars sold</th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td>3</td> </tr> <tr> <td>Tuesday</td> <td>5</td> </tr> <tr> <td>Wednesday</td> <td>6</td> </tr> <tr> <td>Thursday</td> <td>4</td> </tr> <tr> <td>Friday</td> <td>9</td> </tr> </tbody> </table> - How many cars were sold in 5 days? - On which day were the maximum number of cars sold? - How many days did George have sold cars fewer than 6? - How many more cars were sold on Tuesday than on Monday? - If a car cost ₱850 000, how much did he sell on Tuesday? 2. Homework (Optional)	Day	Number of cars sold	Monday	3	Tuesday	5	Wednesday	6	Thursday	4	Friday	9	Answer Key: 27 cars - Friday 3 days 2 cars ₱4 250 000
Day	Number of cars sold												
Monday	3												
Tuesday	5												
Wednesday	6												
Thursday	4												
Friday	9												

B. Teacher's Remarks	<i>Note observations on any of the following areas:</i>	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	<i>Reflection guide or prompt can be on:</i> <u>principles behind the teaching</u> <i>What principles and beliefs informed my lesson?</i> <i>Why did I teach the lesson the way I did?</i> <u>students</u> <i>What roles did my students play in my lesson?</i> <i>What did my students learn? How did they learn?</i> <u>ways forward</u> <i>What could I have done differently?</i> <i>What can I explore in the next lesson?</i>			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.