

MATATAG K to 10 Curriculum Weekly Lesson Log	School		Grade Level	5
	Name of Teacher	DepEdClick	Learning Area	MATH
	Teaching Dates and Time	NOVEMBER 3-7, 2025 (WEEK 1)	Quarter	Third

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES

A. Content Standards	Double bar graphs and double line graphs
B. Performance Standards	Identify, construct, and interpret double bar graphs and double line graphs
C. Learning Competencies and Objectives	Learning Competency - collects data pairs (bivariate) from interview, questionnaire, and other appropriate sources. - identify the appropriate graph (bar graph or line graph) to represent a given set of data
D. Content	Double Bar and Line Graphs - collects data pairs (bivariate) from interview, questionnaire, and other appropriate sources - identify the appropriate graph (bar graph or line graph) to represent a given set of data
E. Integration	Decent Work and Economic Growth Use actual economic data in activities or examples involving double bar and double line graphs (e.g. double line graph of price inflation and minimum wage).

II. LEARNING RESOURCES

Camarista, G., & Oranio, Ian. (2020). Teaching Mathematics in the Intermediate Grades. Lorimar Publishing, Inc. Quezon City
<https://www.youtube.com/watch?v=DGlGEDQfDFw>
<https://www.splashlearn.com/math-vocabulary/geometry/bar-graph>
<https://www.geeksforgeeks.org/double-bar-graph/> Date accessed: June 12, 2024

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III. TEACHING AND LEARNING PROCEDURE

NOTES TO TEACHERS

A. Activating Prior Knowledge

Day 1

1. Short Review

Teacher Jonalyn made a survey among 100 first year students as to their favorite sports. The results are as follows:

Legend:  = 5  = 5  = 5

Favorite Sports of First Year Students

Sports	Male	Female
 Basketball 1	    	 
 Volleyball	 	     
 Foot ball	  	

Answer the following:

1. How many female students love playing volleyball?
2. How many male students love playing football?
3. How many students love basketball?
4. Which sport is the most favorite?

The teacher may revisit the students' knowledge about pictograph.

- Teacher may ask the definition of a pictograph
- A pictograph is a way to represent the data using images or symbols. It represents the frequency of the data using images. Each image represents the frequency of the data.

Answers:

1. 30 female students
2. 15 male students
3. 35 students
4. volleyball
5. 5 female students

	5. How many female students love football? 2. Feedback (Optional)																																		
B. Establishing Lesson Purpose	1. Lesson Purpose Explicitation Tell the learners that within the week, they will learn how to gather data pairs from interviews, survey questionnaires, and when to use a bar graph and a line graph. Recall: Data is a collection of information gathered by observations, measurements, research or analysis. They may consist of facts, numbers, names, figures or even description of things. Data is organized in the form of charts, tables, or graphs. Then present this example: The table below presents information. Observe and check the data presented in the table. <table border="1"> <thead> <tr> <th colspan="3">Grades in Math and Science of Ten Students</th></tr> <tr> <th>Students</th><th>Math</th><th>Science</th></tr> </thead> <tbody> <tr> <td>Student 1</td><td>89</td><td>89</td></tr> <tr> <td>Student 2</td><td>84</td><td>85</td></tr> <tr> <td>Student 3</td><td>88</td><td>97</td></tr> <tr> <td>Student 4</td><td>98</td><td>98</td></tr> <tr> <td>Student 5</td><td>95</td><td>95</td></tr> <tr> <td>Student 6</td><td>94</td><td>89</td></tr> <tr> <td>Student 7</td><td>89</td><td>88</td></tr> <tr> <td>Student 8</td><td>86</td><td>87</td></tr> <tr> <td>Student 9</td><td>90</td><td>94</td></tr> </tbody> </table>	Grades in Math and Science of Ten Students			Students	Math	Science	Student 1	89	89	Student 2	84	85	Student 3	88	97	Student 4	98	98	Student 5	95	95	Student 6	94	89	Student 7	89	88	Student 8	86	87	Student 9	90	94	A must read: (The discussion of the terms here are crucial in your delivery of the content, some terms here are not intended for defining with the learners, due to its nature. The learners may not be ready for it since they still lack the required prerequisite knowledge.) A variable is a characteristic or attribute that can assume different values. Examples: a. Age (age varies in values) b. Gender (maybe female or male) c. Grade levels in basic education (maybe grade 1 – grade 10) Data – are values (measurements or observations) that the variables can assume - are facts or set of information gathered about the sample or the population Bivariate data is data that contains two variables. Data pairs or bivariate are a set of paired observations or measurements collected for two variables such as ages and weights of children, or hours studied and test scores of students. The teacher may give other examples.
Grades in Math and Science of Ten Students																																			
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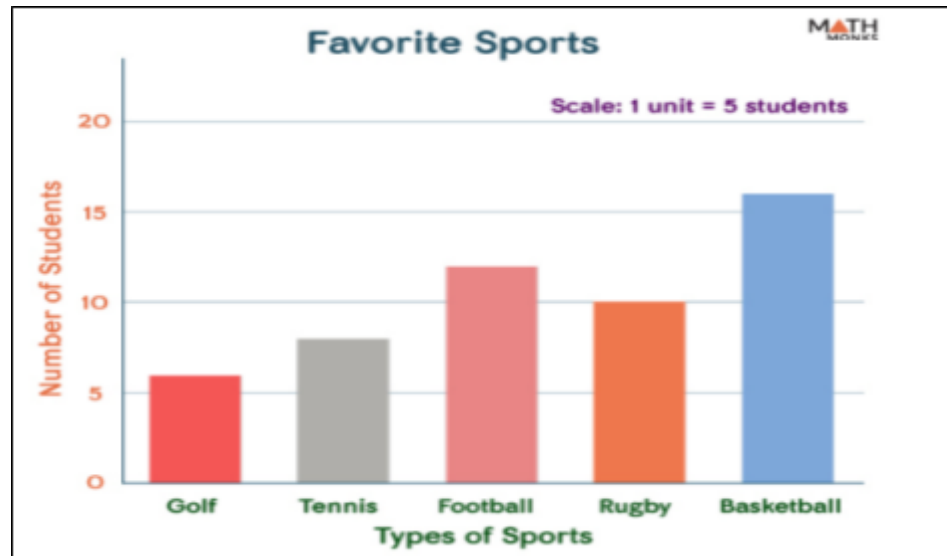
	<table border="1" data-bbox="465 148 1503 209"> <tr> <td data-bbox="465 148 808 209">Student 10</td><td data-bbox="808 148 1169 209">94</td><td data-bbox="1169 148 1503 209">95</td></tr> </table> Questions: a. How do you think you can get this information? Answer: By interviewing, giving survey questionnaire b. Describe the information shown in the table. Answer: It is about the grades in Math and Science of Ten Students c. Where did you refer or base your answer in (b)? Answer: From the title of the table d. How would you describe a student in the table? What values are you going to use? Answer: Students can be described through their grades in Math or Science. For example, student 1 got 89 in Math and Science. Tell the learners that the two values that they used to describe student 1 is a data pair. e. Ask the learner to give another data pair from the table. Then tell the learners, • The data above may be gathered through different methods, such as surveys, interviews, questionnaires and others. • Also, the set of data above are considered as data pairs. 2. Unlocking Content Area Vocabulary Define the following terms: • Data is a collection of information gathered by observations, measurements, research or analysis. They may consist of facts, numbers, names, figures or even description of things. Data is organized in the form of charts, tables, or graphs. • Data Collection – refers to the methods use to collect data from different sources for a particular purpose	Student 10	94	95	Other examples: Yes or No answer in a question, age and income, education level and job satisfaction He or She may also ask students to give their own examples of data pairs. The teacher may also emphasis here the values integration. (e.g. study time and exam score)
Student 10	94	95			

	• Data pairs are a set of paired observations or measurements collected such as ages and weights of children, or hours studied and test scores of students.	
C. Developing and Deepening Understanding	Day 1 Subtopic 1: Collects data pairs (bivariate) from interview, questionnaire, and other appropriate sources 1. Explicitation: To collect data pairs, it is needed to design a data collection method that involves gathering information on two variables simultaneously. Here are a few approaches to collect data pairs: a. Interviews - a structured conversation where one participant asks questions, and the other provides answers. It is where you ask participants questions about two data. During the interview, record the responses for both data. For example, interview individuals about their daily exercise habits and their stress levels. b. Questionnaire - consists of a set of questions to collect information from a respondent. A survey or questionnaire that includes questions related to two data of interest. Participants can provide responses for both data in the same survey form. For example, you could survey about their age and their level of satisfaction with their stay in the school. Other examples of data pairs may be collected using interview or questionnaire are the following: - Grades and number of hours spend in studying - Grade in Math and Grade in Science - Height and weight Lesson Activity 1: Surveying (Refer to Activity Sheet 1)	For Lesson Activity: Surveying Do rationalization of the students' output by phrasing

	Guide the learners in forming the data collected. Ask them to construct a table showing the results of their survey. Make sure that the learners could have a better understanding of what data pairs are by identifying the data collected by each group. Example: Ask the learners to form a team with 3 members. They will survey 15 of their classmates using a questionnaire. Then ask them to organize the data from the questionnaire and construct a table. Students/ groups may choose only one survey questionnaire. Day 2-3 Subtopic 2: Identify the appropriate graph (bar graph or line graph) to represent a given set of data 1. Short Review/ or Data presentation of activities 2. Explicitation Ask the learners: What other method or presentation can be used to display responses in a survey? (Answer: graphs) What is a Bar Graph? - Bar Graph is a graph which uses either horizontal or vertical bars to represent data. The types of bar graph include horizontal bar graph and vertical bar graph. - The length of a bar represents a quantity. Therefore, bars can be compared by examining the bar lengths. - In the vertical bar graph, bars extend from bottom to top. The vertical line is the scale of the graph. - When to use the bar graph? - Bar graphs are effective for visually representing data or for comparing different categories Examples: - Comparing the grades or scores of students in different subjects or classes.	questions of inquiry or clarification. In rating their output, you may use a scoring rubric. The presentation of data may be done in the next meeting.
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- g) Displaying the distribution of responses to a multiple-choice question (e.g., favorite color, preferred mode of transportation) among survey participants)

Show the graph below and discuss the parts, title of the graph, the labels on the horizontal and vertical axis, and the vertical bars. May also ask questions found on the graph. Example, how many students like basketball?



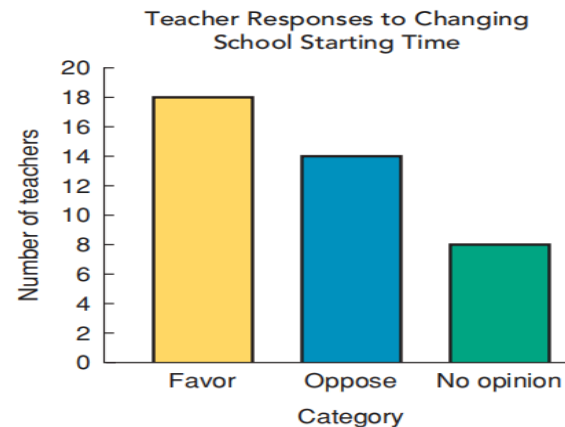
- a) What do those bars (blue bar and orange bar) represent?
Answer: Number of boys and number of girls who voted for a particular Snack
- b) Choose a particular bar, and ask a learner the meaning of your chosen bar.

Then ask the learners to answer the same questions for this data during Day 1 and ask which presentation quickly gives an answer.

- a) What snack got the highest choice among the girls?
b) What is the least favorite snack of boys? What about the girls?
c) How many boys were surveyed about their favorite snacks?
d) What snack is the highest choice among the boys?

Ask the learners to look for more information on the graph and ask their classmates.

Lesson Activity



Refer to the graph above in answering the following questions:

a.) What is the data about?

Answer: Teacher Responses to Changing School Starting Time

b.) What do those bars represent?

Answer: Number of teachers who voted for their opinion (favor, oppose, or no opinion)

c) What information does the last bar represent?

Answer: Number of teachers who voted for no opinion.

d) How many teachers opposed the change in school starting time?

(Answer: 14)

e) How many teachers favored the change in school starting time?

(Answer: 18)

Line Graphs

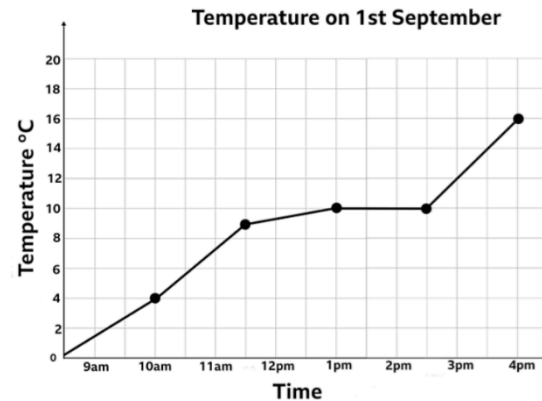
What is a line graph?

The teacher may elaborate more on the definition of a line graph and when to use it.

Ask the learners to look for more information on the graph and ask their classmates.

- ✓ Line graph is a type of graph used to represent changes in data over a period of time. Usually, data are represented by points and are connected by line segments.
- ✓ In general, the horizontal axis is used as the time axis and the vertical axis is used to show the changes in the other quantity.

Example of line graph:



Ask the learners the following questions:

- a. What information can you read/see from the line graph?
The line graph shows temperature on September 1 from 9am to 4pm.
- b. What values are found in the x- axis? y axis?
In x – axis is time from 9am to 4pm where the temperature in Sept 1 were taken/recorded.
In the y- axis is the temperature in degrees Celsius.
- c. What is the temperature on Sept 1 at 4 pm? (16 degree Celsius)
- d. What is the highest recorded temperature on Sept 1? (16 degree Celsius)

When to use the line graph?

Data like changes in population, temperature, and profit can be represented by a line graph

Examples:

Answer: Activity 2

- A.
1. Number of boxes of donuts sold in a day
 2. Days of the week
 3. sold 5 boxes only on Monday and Thursday
 4. Answer may vary
- B.

	a. Daily temperature of San Ignacio Elementary School for 7 days to monitor heat index b. Number of boxes of donuts sold in a week c. Population in Pampanga Province for a period of 6 years. 2. Worked Example (Activity 2) Refer to Activity Sheet 2. 3. Lesson Activity 3 Refer to Learning Activity Sheet 3.	1. Line graph 2. Bar graph 3. Bar graph Answer: Activity 3 A. 1. DB 2. L 3. L 4. L 5. DB B. 1. Bar graph 2. Line graph				
D. Making Generalizations	1. Learners' Takeaways <i>What did I learn?</i> <table><tr><td>Data can be defined as _____ of numbers about a specific topic or subject.</td><td>There are few approaches in gathering data. The two familiar methods are _____ and _____.</td></tr><tr><td>Collected data may be presented using graphs. The _____ are effective for visually representing data or for comparing different categories</td><td>Collected data may be presented using graphs. The _____ is a type of graph used to represent changes in data over a period of time.</td></tr></table> 2. Reflection on Learning • How can we connect this lesson to our everyday lives? • Cite instances where interview and survey methods help you in your studies or in your everyday living. • Cite instances where knowledge of bar graph and line graph is useful in practical contexts.	Data can be defined as _____ of numbers about a specific topic or subject.	There are few approaches in gathering data. The two familiar methods are _____ and _____.	Collected data may be presented using graphs. The _____ are effective for visually representing data or for comparing different categories	Collected data may be presented using graphs. The _____ is a type of graph used to represent changes in data over a period of time.	The teacher will guide the learners in generalizing what they have learned by answering the guide questions and completing the sentences given.
Data can be defined as _____ of numbers about a specific topic or subject.	There are few approaches in gathering data. The two familiar methods are _____ and _____.					
Collected data may be presented using graphs. The _____ are effective for visually representing data or for comparing different categories	Collected data may be presented using graphs. The _____ is a type of graph used to represent changes in data over a period of time.					

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION

NOTES TO TEACHERS

A. Evaluating Learning

Day 4

Formative Assessment (Activity 4)

A. Answer the following questions using the given problem below:

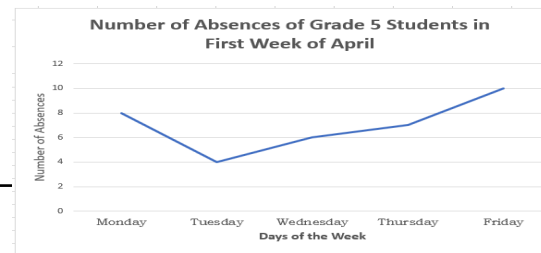
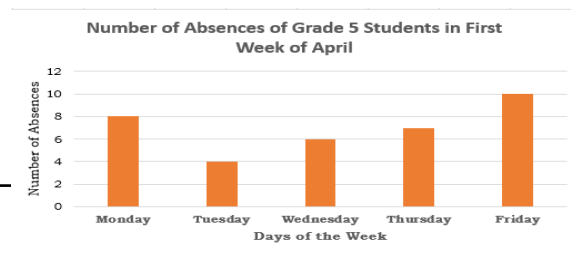
Teacher Hazel was tasked to gather data through a questionnaire about the number of absences incurred by Grade 5 students for the first week of April from Monday to Friday. She tallied the data gathered. The graph shows the summary of the results.

Number of Absences of Grade 5 Students in First Week of April

Day	1 st Week
Monday	8
Tuesday	4
Wednesday	6
Thursday	7
Friday	10

Refer to the table above in answering the following questions.

- What is the data all about?
- If you are to construct the double bar graph for the given data, what labels would be correct to use for the two bars?
- What labels should be used on the horizontal (x-axis)? For the vertical (y-axis)?
- Which graph best represents the data above.



Answers:

A.

a. Number of Absences of Grade 5 Students in First week and Second Week of April

b. bar for the first week and bar for the second week

c. horizontal: days of the week, Vertical- number of absences

d. Figure 1

B. Figure 1

Figure 1

Figure 2

B. Which line graph correctly represents changes in Kelly's heights from 0 years to 8 years old? The table below shows the data.

Changes Kelly's Height Form 0 years to 8 years	
Age (in years)	Height (in Inches)
0	4
2	28
4	44
6	52
8	64

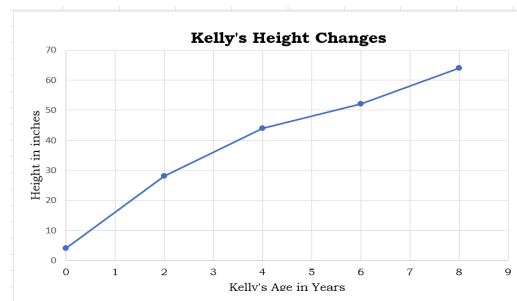


Figure 1

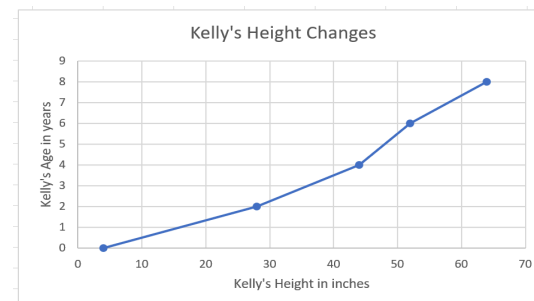


Figure 2

1. Homework (Optional)

B. Teacher's Remarks

Note observations on any of the following areas:

strategies explored

Effective Practices

Problems Encountered

Teachers' remarks

The teacher may take note of some observations related to the effective practices and problems encountered after utilizing the different strategies,

	materials used			materials used, the learner engagement and the other related stuff. Teachers may also suggest ways to improve the different activities explored.
	learner engagement/ interaction			
	others			
C. Teacher's Reflection	Reflection guide or prompt can be on: ▪ <u>principles behind the teaching</u> What principles and beliefs informed my lesson? Why did I teach the lesson the way I did? ▪ <u>students</u> What roles did my students play in my lesson? What did my students learn? How did they learn? ▪ <u>ways forward</u> What could I have done differently? What can I explore in the next lesson?			Teachers' reflections 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.