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DEPARTMENT OF EDUCATION

Lesson Exemplar for Science

Quarter 4
Lesson
5

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Lesson Exemplar for Science 4
Quarter 4: Lesson 5 (Week 5)
S.Y. 2024-2025

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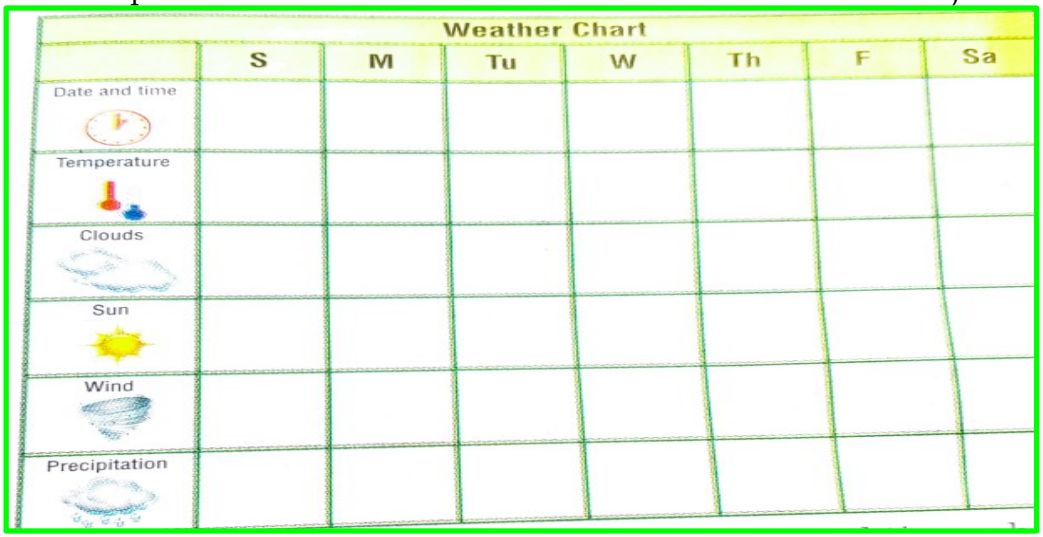
SCIENCE (EARTH AND SPACE SCIENCE) / QUARTER 4 / GRADE 4

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	The learners learn that: 1. Soil and water resources are needed by plants and animals to live and grow. 2. Characteristics of the weather can be observed and measured. 3. The Sun is a ball of hot gases about 100 times the size of Earth, which radiates light energy needed by living things.
B. Performance Standards	By the end of the Quarter, learners use simple equipment to identify how types of soil hold water to support the growth of plants. They use instruments and secondary sources to measure and describe the characteristics of weather and use the information to make predictions about weather patterns in their local area. They demonstrate appreciation for the dangers of extreme weather events and use safe practice to protect themselves if they are caught in bad weather. Learners use personal observations and reliable secondary information sources to describe the Sun and explain its importance to life on Earth.
C. Learning Competencies and Objectives	***Learning Competencies*** 1. *identify some of the basic characteristics/elements used to describe the weather, such air temperature, air pressure, wind speed, wind direction, humidity, rain, and cloud cover; and* 2. *use weather instruments to measure and record some of the characteristics of weather during a school day.*
D. Content	Local Weather Chart Components of a Local Weather Chart Guided Analyses of Local Weather Charts - interpreting current weather - predicting weather changes - understanding weather patterns Weather Instruments and Measurements (thermometer, barometer, anemometer, wind vane)
E. Integration	● Environmental awareness (Environmental Literacy) ● Collaboration ● Development of survival skills

II. LEARNING RESOURCES
Real Life Science 4. Quezon City, Philippines. Eight Printing 2020 **Abiva** Publishing Quintana, J. R. (2019). *Elementary Science Explorer 4.* Quezon City: PSICOM Publishing Inc. YouTube Videos on how to make improvised weather instruments https://youtu.be/2Epu6fPreW4?t=66 https://youtu.be/wMJmUAOpsg8?t=164 https://youtu.be/V647xfOreKM https://youtu.be/Mzuh-sB2GXM?t=24 https://youtu.be/jwo2XGBABpY?t=68 https://youtu.be/9JHuXRTSxx8?t=19 https://s3.amazonaws.com/cdn.freshdesk.com/data/helpdesk/attachments/production/5078053868/original/IXkUdRMa6eyjkkXE1sDu01tknyoJ7WuJg.png?1485894224 (This is the link to the International Weather Symbol Chart)

III. TEACHING AND LEARNING PROCEDURE		**NOTES TO TEACHERS**
A. Activating Prior Knowledge	**DAY 1** **Let us Review** **Weather Symbols and Meaning** (5 minutes) Learners will work with their groups and will be given an envelope where there are 10 cut-out materials to match. They are to work for three minutes to match the weather symbol with the meaning. The group with the highest number of correct answers will win the game. Instructions for the students: 1. You will work with your group last week to answer this review activity. 2. You will be given an envelope containing 10 different weather symbols. Your task is to match the weather symbols with the corresponding meaning. 3. You are given three minutes to work on this. 4. Your teacher will share with you the correct answer/match. Take note of these symbols for you will be using these in this week's lesson.	Choose 10 weather symbols that are contextually applicable to your area. Prepare a cut out of these and place it inside an envelope. There should be one envelope for each group. Have the learners work on matching the symbol with the meaning for three minutes. After this, go through the answers and discuss these in relation to the activity they will be doing this week.

	See link: https://s3.amazonaws.com/cdn.freshdesk.com/data/helpdesk/attachments/production/5078053868/original/IX-kUdRMa6eyjkkXE1sDu01tknyoJ7WuJg.png?1485894224	
B. Establishing Lesson Purpose	**1. Lesson Purpose** Tell the students that for week 5, they are expected to : a) give interpretation to the gathered data/observation and use the skill gained to also interpret local weather charts; b) make predictions on weather changes based on observations, and c) explain weather patterns. **Unlocking Content Area Vocabulary (5 minutes)** Present to the class the following words related to the lesson: 1. Weather Forecasting 2. Weather Maps 3. Weather Charts 4. Weather Station 5. PAGASA 6. Rain 7. Sleet 8. Snow 9. Meteorologist 10. Meteorology 11. Fine Weather 12. Fair Weather 13. Cloudy Weather 14. Rainy Weather 15. Stormy Weather **Instruction for the learners:** 1. Choose at least 10 words from the list that you will describe to your group. 2. You are seated together with your group (triad) to discuss and write your	After the group work on the meaning of the symbols, share with them the objectives for the week. Ask them if they think they can do the task together this week. Say: Let us go through some of the Vocabulary Words for this week. Have the learners seated in triads and instruct them to choose ten words from the list that they will share and discuss to establish their understanding of the meaning. They are to share one term and build on it's meaning as a group. When the time is up, share to the class the meaning of the terms.

	answers in your paper. 3. As you discuss one term, allow others to add to the meaning of the word until all the 10 words chosen have been discussed.	
C. Developing and Deepening Understanding	**DAY 2** Guided Analyses of Local Weather Chart **1.Explicitation** ● Prepare the Weather Charts you have answered last week. ● You will base your answers from the observations you have gathered then. (This is a sample Weather Chart that should have been filled in Week 4).  Using the data/observations students gathered through the Weather Chart, they will answer the following questions: 1. Temperature *a. On which day did we have the highest temperature?* *b. On which day did we have the lowest temperature?*	● Instruct the learners to use the Weather Charts they have made in Week 4. ● They will answer the given Guide Questions in triad then share it to the whole class.

2. Clouds
    a. *For this week, how has the cloud cover been characterized?*
3. Sun
    a. *How has the week been in terms of the appearance of the sun?*
4. Wind
    a. *How do you describe the wind the last few days?*
5. Precipitation
    a. Has it rained the last few days?
    b. Which day did it rain?

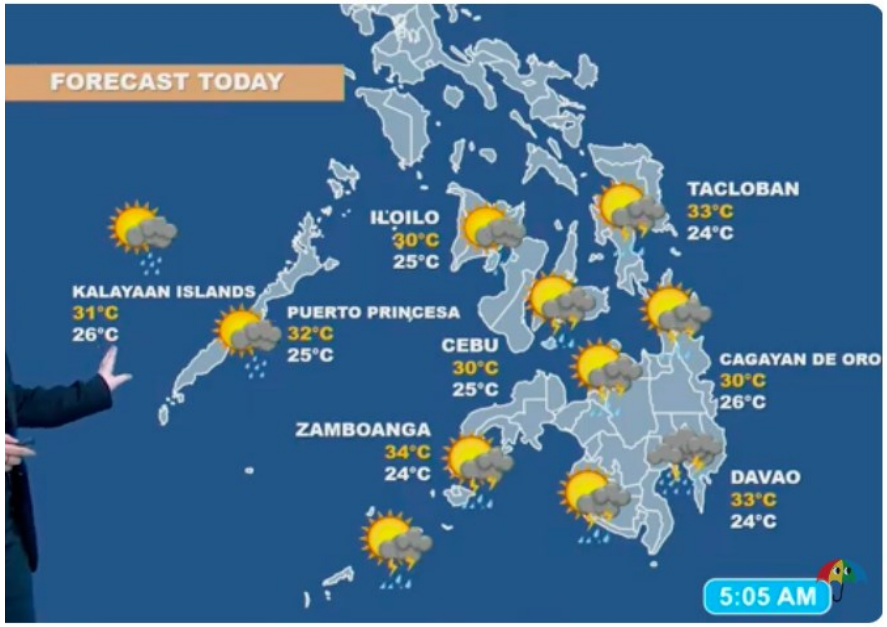
Making Generalizations:
Ask the students *"What can you say about the kind of weather you have monitored at different times of the day? and on different days, are the measures the same among groups?"*

Establishing relationships among data results
Let the students study the results of their observations from Monday until Friday. Then ask:

1. Are the results/measures on Monday related to the results on Tuesday or Wednesday?
2. Can we tell what the weather will more likely be in the following week based on the observations gathered this week?

DAY 3

2. Worked Example
Let the students examine the DOST weather forecast below.



cast issued at 4AM | February 27, 2024 - Tuesday

Let the students answer the following questions on Weather Forecast.

1. Which province will experience the hottest temperature for the day?
2. Which province will experience the coldest?
3. What will be the general description of the weather for the region?

Present the information below to the students.

"Weather events are recorded and predicted daily all over the world. These scientists work in weather stations or specialized facilities equipped with the personnel, instruments and technology needed to prepare weather forecasts and reports. In the Philippines, the Philippines Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) is the government agency responsible for providing information about flood and typhoon warnings, public weather forecasts and advisories and other information. It work closely with a network of weather stations all over the world that gathers relevant information about the weather in different countries and studies these in relation to Philippine weather conditions. They prepare reports and similar documents that contain their analysis and findings on the weather." (Real Life Science 4, 2020)

Figure 1. Weather Maps and Charts

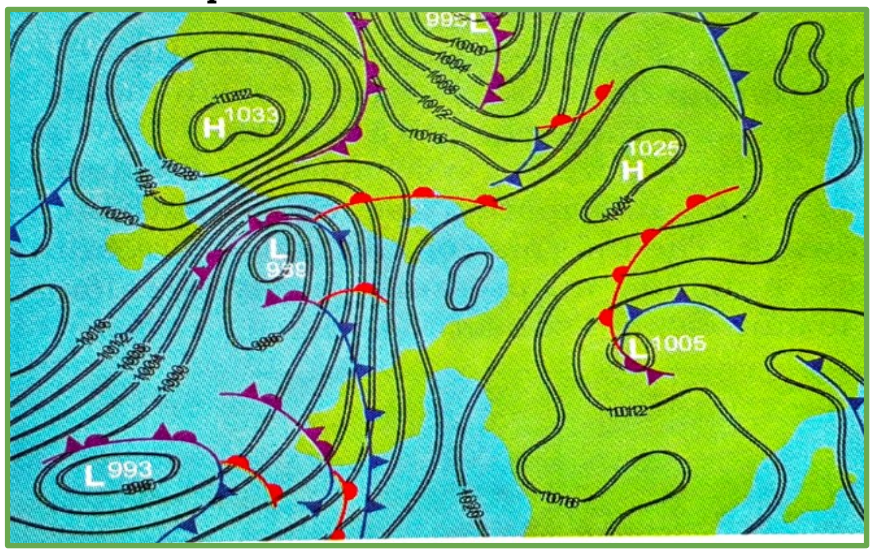
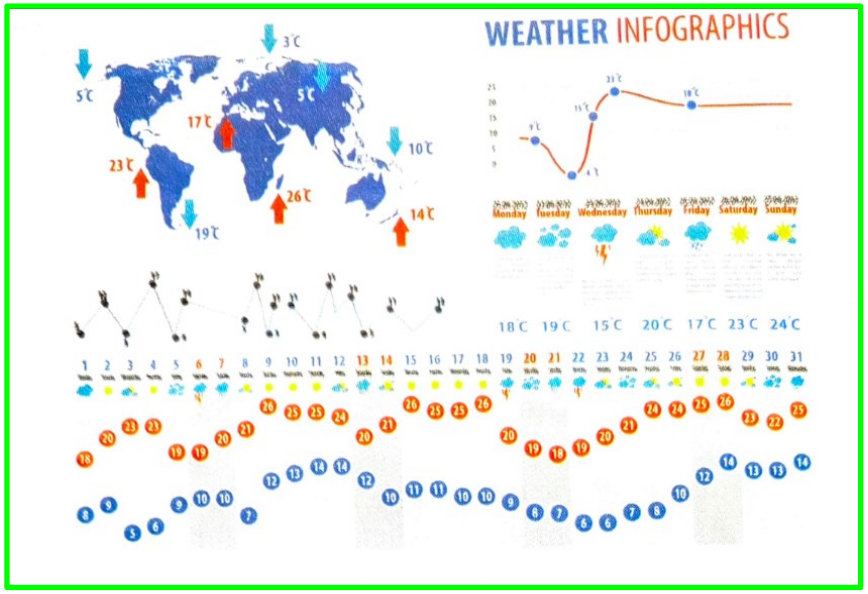


Figure 2

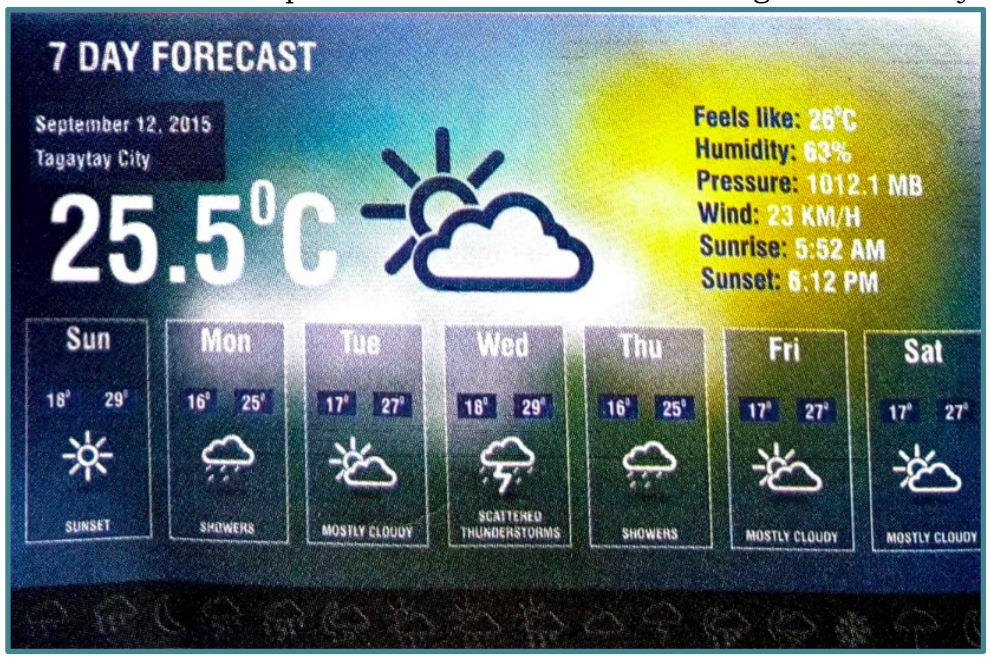


You may ask the students the following questions:

1. Which of the two figures shows the details of the atmospheric conditions prevailing in a certain part of the Earth and which meteorologists use to forecast the weather?"

2. Which of the two contain information and analysis of the weather in a given locality as detected by weather instruments within a given period?

Show the students an example of a Weather forecast covering the last 7 days.



Ask the questions:

1. In what way can this inform us of the possible weather condition the following week?
2. Will our forecast become a certainty?
3. Is there a possibility it will not be forecasted? Why and why not?

	DAY 4 **3. Lesson Activity** A. Work with your group using the data on the Weather Chart done last week. Make a similar Weather Forecast result out of the chart. You are to report/share this as a weather forecaster to the class. B. Complete the Table you have during the previous week. Work on Column D (Meaning of the symbol) and E (Precautionary measures). Submit this as a group output for the two weeks alongside the Weather Forecast.	A. Utilizing the data from the weather chart they have shared, instruct the learners to make a weather forecast following the example shown. They may also design their version. B. Using the Table they started working on last week, guide the learners in completing columns D and E.
D. Making Generalizations	Discuss questions within each group. *What is it about the weather that we have noticed based on the observation we made during the same time each day for a week?* Discussion questions for the whole class. Based on the reports from each group what can you say about the weather? What about some patterns you have observed? **1. Learners' Takeaways** Share at least two lessons/realizations you gain from the activities about weather. **2. Reflection on Learning** • Which of the activities we have done last week helped you understand the lesson? In what way has it helped you? • What about those that we have done this week? • Which part of the lesson encouraged you? • Which would you like to learn/study more? • In what way/s will the lesson you learn help you in the future?	Once they are done answering, you may ask some representatives to share their answers on any of the guide questions to the class. Give the learners time to answer their worksheet for their Takeaways and Reflection.

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		NOTES TO TEACHERS
A. Evaluating Learning	**1. Formative Assessment** **Quiz on the terms used for weather forecasting** Multiple Choice. Choose the letter of the correct answer. 1. Which of the following refers to the scientists who study the weather? a. Astronomer b. Astrologists c. Meteorologist d. Geologist 2. What does a falling barometric pressure indicate? a. fine weather b. bad weather c. fair weather d. sunny weather 3. Which of the following describes a fine weather? a. It rained for most part of the day. b. The sky is clear and the wind is calm. c. There is heavy rain and strong wind. d. The heat of the sun is not felt strongly because clouds cover the sky. 4. Which of the following refers to the application of science and technology to predict the state of the atmosphere for a given location? a. Weather forecasting b. Weather maps c. Weather reports d. Weather station 5. Which of the following records the data gathered on the components of weather of a given place as detected by the different weather instruments? a. Weather charts b. Weather forecasting c. Weather maps d. Weather report **2. Homework (Optional)** This sub-component allows students to attempt as a form of deliberate practice what was covered in the lesson.	**Answer Key** 1. c 2. b 3. b 4. a 5. a

<table>
<tr><td rowspan="5">A. Teacher's Remarks</td><td>Note observations on any of the following areas:</td><td>Effective Practices</td><td>Problems Encountered</td><td rowspan="5"></td></tr>
<tr><td>strategies explored</td><td></td><td></td></tr>
<tr><td>materials used</td><td></td><td></td></tr>
<tr><td>learner engagement/ interaction</td><td></td><td></td></tr>
<tr><td>Others</td><td></td><td></td></tr>
<tr><td>B. Teacher's Reflection</td><td colspan="3">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?</td><td></td></tr>
</table>