4

Lesson Exemplar for Science

Quarter 4
Lesson
6

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Lesson Exemplar for Science 4
Quarter 4: Lesson 6 (Week 6)
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.*
C. Content	Describing poor and extreme weather conditions • Typhoon • Heavy Rainfall • Extreme condition Safety Precautions During Poor or Extreme Weather Conditions
D. Integration	• Environmental awareness (Environmental Literacy) • Collaboration • Development of survival skills

II. LEARNING RESOURCES
Quintana, J. R. (2019). Elementary Science Explorer 4. Quezon City: PSICOM Publishing Inc. Real Life Science 4 Quezon City, Philippines. Eight Printing 2020 Abiva Publishing https://youtu.be/QVZExLO0MWA (This YouTube video will give learners information on examples of extreme weather and what qualifies it to be considered an extreme weather condition)

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	**DAY 1 (50 MINUTES)** **Explicitation (10 minutes)** You may invite the learners to read the sentences inside the box. Weather can change from day to day. One day the weather may be hot and sunny. The next day, it may be cool and rainy. The meteorologist has access to different weather conditions; thus they can best prepare themselves. Ask them if they agree with the statements. Continue by saying, "For us, we need to observe daily weather to know how the day will go. Let us look outside and check what the weather is today. Let us check our Weather Report for the Day. Let us recall the weather Instruments used to gather information to measure it." Learners work with the same grouping they had last week to answer the Table below.	Considering that during the prior week, learners monitored the weather for the week using their improvised weather instruments, this initial activity links the current lesson with the previous one. Let the learners read the statement inside the box. Ask them if they agree with the statements. They are to show their thumbs up if they do. Then continue saying the next statements. Tell them, *"With your group, complete the given table for the weather*

<table>
<tr>
<td></td>
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<table>
<tr><th>Element of Weather</th><th>Weather Tools</th><th>Current Condition</th></tr>
<tr><td>Temperature</td><td></td><td></td></tr>
<tr><td>Clouds</td><td></td><td></td></tr>
<tr><td>Sun</td><td></td><td></td></tr>
<tr><td>Wind</td><td></td><td></td></tr>
<tr><td>Precipitation</td><td></td><td></td></tr>
</table>

Discussion Questions: (Group activity)
1. If we are to consider the weather last week, how was it?
2. What do you think will the weather be like next week?

This week, we will list some safety precautions we need to consider to keep ourselves safe from possible harm brought about by the weather.

We will also look into some extreme changes in the weather and the disturbances this may cause us and how we are to prepare for these extreme weather conditions.
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recording for the day.”

Discussion Questions:
Use the Weather Monitoring Chart of the previous week as Visuals and have the learners answer the Discussion Question.

Instruct the learners to work with their group to discuss their answers to the Discussion Questions.

Suggested prompts may include:
What can you say about the temperature last week?
Has it been Cloudy?
What about the Sun?
How was the Wind condition?
Did it rain?

Tell the class about what they will be discussing for the week. You can say the statements indicated inside the box.
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<td>B. Establishing Lesson Purpose</td>
<td>
1. Lesson Purpose
At the end of the week, learners are expected to:
a. describe poor and extreme weather conditions
b. discuss the importance and Practice of Safety Precautions
c. make personalized guidelines during extreme weather.

2. Unlocking Content Area Vocabulary (5 minutes) Pair Work
You are given 5 minutes to answer a Matching Type quiz. Work with a partner to
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Share with the learners the objectives of the week and allow them to clearly understand the tasks expected of them.

Learners work in pairs to answer the Matching type
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<td>do this. Write the letter of the correct answer on a piece of paper.

<table>
<tr><th>Column A</th><th>Column B</th></tr>
<tr><td>1. It is a powerful electrical discharge made during a thunderstorm.

2. Storms with high winds and heavy rain start as tropical storms that form over warm ocean waters.

3. An act of nature occurs when an area doesn't receive enough rainfall, drying up rivers and lakes, killing trees and ruining crops.

4. An act of nature that occurs when too much rain forces streams, rivers, and lakes to overflow.

5. It is a fast-spinning column of air that stretches from a thunderstorm cloud in the sky down to the earth's surface.</td><td>A. Tornado
B. Drought
C. Lightning
D. Typhoon
E. Flooding</td></tr>
</table>
</td>
<td>activity.

Answer Key
1. C
2. D
3. B
4. F
5. A</td>
</tr>
<tr>
<td>C. Developing and Deepening Understanding</td>
<td>DAY 2 (50 MINUTES)

SUB-TOPIC 1: What are poor and extreme weather conditions?

1. Explicitation (10 minutes)

Ask learners the question:
What happens when the measurement of the elements of weather becomes extremely high and or extremely low?

These are considered extreme weather. These are weather with measures outside of normal patterns.</td>
<td>For this day, you will discuss the meaning of Extreme weather and identify some examples.

Prepare the materials needed for the session:
• Picture or projection of extreme weather poster.
• Projection of the YouTube Video https://youtu.be/QVZExLO</td>
</tr>
</table>

	Let the students work in pairs (same partner as that of the Vocabulary activity) to answer the task. *Which of the following are considered extreme weather?* The teacher discusses the correct answer and asks learners if there are those they have experienced which were not included in the list. ***VIDEO FUN*** *(30 minutes)* For this part of the lesson, show the class a video from YouTube describing Extreme Weather and its examples. Prior to the viewing, let the students read and take note of the following guide questions: Link to the video: https://youtu.be/QVZExLO0MWA **WHATEVER THE WEATHER!** (10 minutes) Instruction: Identify the Extreme weather described in each item.	0MWA • Printed answer sheets for the quiz. (1-5) ANSWER KEY: 1. Forest fire 2. Flooding/Typhoon 3. Cyclone 4. Freezing 5. Drought The teacher then asks, *"What about the other examples in the picture? Why are they not considered extreme weather conditions?"* Allow learners to share their answers. In the Video Fun activity, prepare the video and give the learners the instructions to watch the video and answer the questions/activity provided. To have the video played, copy the link in a YouTube website

1. It is a fast-spinning column of air that stretches from a thunderstorm cloud in the sky down to the earth's surface.
2. Storms with blowing of falling snow, high winds, and cold temperatures.
3. Storms with high winds and heavy rain which start as tropical storms that form over warm ocean waters.
4. An act of nature that occurs when too much rain forces streams, rivers, and lakes to overflow.
5. An act of nature occurs when an area doesn't receive enough rainfall, drying up rivers and lakes, killing trees and ruining crops.

What two questions do we need to ask to know if the weather is extreme?
1. _____
2. _____

Why is it important for us to learn about extreme weather?
_____
_____
_____

DAY 3 (50 MINUTES)
LET'S INVESTIGATE (10 minutes)

Learners are grouped with 3 members and will be assigned to research one extreme weather. They will be asked to complete the data of a table that requires them to:

a. Describe the extreme weather
b. The international symbol for assigned extreme weather
c. Causes of the extreme weather
d. Places which are prone to this calamity
e. Origin of the extreme weather (Land, Air, Water)

Let the students fill the table below:

Name of extreme weather	
Description/definition	

and play.

Answer Key
1. Tornado
2. Blizzard
3. Typhoon
4. Flooding
5. Drought

Sample answers:
1. Does it put people and property at risk?
2. Does it have a major impact on the biosphere and geosphere?

Summarize the answers they gave for the WHY question.

Allow the learners to use their gadgets to find answers to the assigned topic. They are encouraged to work as a team and divide the tasks among the group members.

Once they are done with the task, learners will assign a reporter who will share the findings of the group.
For every extreme weather report, the teacher clarifies the covered topics and queries.

International Symbol	
Causes of the Extreme weather	
Places which are prone to this extreme weather	
Origin of the Extreme weather (land, air or water)	

For the answers to the activity, refer to the Worksheet Activity 6.1 titled *"Let's Investigate"*.
Instructions:

1. Students can use their own gadgets to find answers to the assigned topic.
2. They are encouraged to work as a team and divide the tasks among the group members.
3. Once done with the task, they will assign a reporter who will share the findings of the group.

REPORTING OF THE FINDINGS (10 minutes)
Each group will share their findings with the class and the teacher then discusses the answers.

ASSIGNMENT
Learners will research the general safety precautions to consider daily. Then consider also those for extreme weather.
Learners may search for a YouTube video/other online sources which help them understand extreme weather and safety precautions.

DAY 4 (50 MINUTES)

SUBTOPIC 2: Danger of Extreme Weather and Safety Precautions

Activity: *Pinoy Henyo (5 extreme weather)*
Instructions:
1. The class will be divided into two groups. Each group will be given a turn to

You will summarize the answers given by the students.

For the assignment, the same group will research the safety precautions related to extreme weather conditions.

The teacher gives a summary of the game as a review of the different extreme weather conditions.

	have their representative guess the extreme weather for them. The group with the highest number of correct guesses will be the winner. 2. A word (extreme weather) is placed on top of the guesser's forehead. The goal of the game is to correctly guess the word in under two minutes. The word-guesser must ask a series of deductive questions that become more specific over time, while the other player must only reply with "Oo" (yes), "Hindi" (no), or "Pwede" (maybe/possibly). Activity: *The Dangers of Extreme Weather (20 minutes)* "Paint Me a Picture" Instructions: 1. The class will be divided into 5 groups and will be randomly assigned one danger of extreme weather. They are given five minutes to plan and paint a picture of the assigned danger. 2. Each group needs to make sure their PICTURE portrays a clear description of the different dangers. After each presentation, the teacher will guide the class to do the following: a. guess the danger being portrayed; b. enumerate which extreme weather may cause the danger; and c. list at least 3 precautionary measures for each The flow will continue until all 5 groups have depicted their picture. You may tell the class, *"Now that we have identified some dangers brought about by extreme weather, let us look at some safety precautions to help us."* Activity: *Connect the Precaution to address the danger (5 minutes)* Given the following Safety Practices, identify the extreme weather.	Divide the class into 5 groups. Ask a representative to draw one danger of extreme weather. a. High/violent winds and flying debris b. Heavy rainfall and potential for landslides c. Dehydration and heat-related illnesses d. Flash floods and high-water rise e. Destruction of structures and landscapes Once assigned, they are given five minutes to plan and paint a picture of the assigned danger. Possible answers for this Paint Me a Picture Activity are presented below the Assessment part of this guide. Say, *"Here are sets of precautionary measures, identify which extreme weather may these be applicable."*

	Refer to Worksheet 6.2 titled, "Connect the Precaution to the Extreme Weather" A. _____ a. Evacuation procedures b. Securing outdoor items and windows c. Finding a safe shelter B. _____ a. Staying hydrated and avoiding strenuous activities b. Creating a cool environment at home c. Checking on vulnerable individuals, such as the elderly C. _____ a. Identifying safe locations (basements, storm shelters) b. Taking shelter in interior rooms or hallways c. Avoiding window D. _____ a. Monitoring local water levels and evacuation orders b. Avoiding flooded areas and swift-moving water c. Evacuating to higher ground if necessary Now that we are done answering the Worksheet, let us discuss your answers.	Instruct the learners to go to Worksheet 6.2 titled, "Connect the Precaution to the Extreme Weather" and answer (individually) for 5 minutes. After they have answered the worksheet, the teacher discusses with the learners the answer. Possible answers: A. Flooding, Typhoon B. Heat Wave/Drought C. Tornado D. Flooding, Typhoon
	These are only some of the extreme weathers we experience in the Philippines. There are more from other parts of the world. By this time, we already have some ideas on how to keep ourselves safe during these events. However, extreme weather may not be an everyday thing for this may happen occasionally. The daily experience we have is with the challenges that we face when there are weather changes. Thus, there is a need for us to be prepared.	The teacher summarizes the lesson by saying the statements inside the box.
	In your sheet of paper, give at least three reminders you want to give yourself as safety precautions related to weather. After the learners have written their safety precautions, the teacher then presents the safety guidelines to the class.	Ask the learners to take at least three safety precautions they remind themselves of.

Safety Precautions related to weather

Develop a habit of listening to weather forecasts.
Dress according to the weather
Always bring protective caps, umbrellas, and raincoats.
Avoid staying under the heat of the sun from 10:00 to 4:00 daily.
Do not play outdoors during heavy rain.
If you are outdoors and hear the sound of thunder, get indoors as soon as you can.
If flooding has taken place, avoid flooded areas and never walk in flooded areas.

After the presentation of each guideline, ask them if they have considered similar precautions in their list.

NOTE: When discussing this part, ask the why question after each and allow learners to give their reasons. We can also encourage them to add more as applicable to their context.

Activity: *My Personalized Guidelines: (15 minutes)*
Instructions:

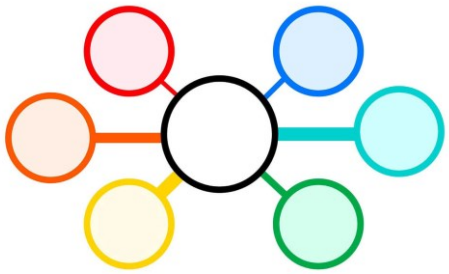
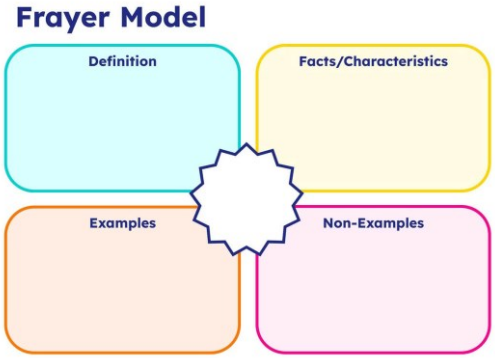
1. Learners will make his/her personalized guidelines.
2. They can make a creative presentation of their guidelines. This can be in the form of a jingle, poem, dance steps or a song.
3. They will make an action plan for them to share their output with their family and relatives.

Refer to Worksheet 6.3 titled *My Personalize Guidelines/Precautionary Measures* for this activity.

My Personalized Guidelines
This activity may not be finished during the session. This can be an extended work/task which can be considered a summative assessment.

Possible Answers to the Dangers of Extreme Weather:

1. Typhoon	
Danger ● Flash floods and high-water rise ● Potential for landslides ● Violent rain & flying debris	*Precaution:* ● Stay updated with the weather alert ● Prepare for evacuation when there is advice ● Have the Flood Kit Ready ● Evacuation procedures ● Securing outdoor items and windows ● Finding a safe shelter
2. Drought (El Nino)	
Danger ● Dehydration and Heat-related	*Precaution* ● Stay under shade to prevent sunburn

	illnesses • Scarcity of Water • Danger of Heat Stroke • May cause fire or forest fires	• Keep self-hydrated • Wise usage of water • Staying hydrated and avoiding strenuous activities • Creating a cool environment at home • Checking on vulnerable individuals, such as the elderly
	3. Tornado	
	Danger • High/violent winds and flying debris • Destruction of structures and landscapes	*Precaution* • Identifying safe locations (basements, storm shelters) • Taking shelter in interior rooms or hallways • Avoiding windows and doors
	4. Forest Fires	
	Danger • Dehydration and heat-related illness	*Precaution* • Stay informed through weather forecasts and alerts
	5. Heavy Rainfall	
	Danger • Monitoring local water levels and evacuation orders • Avoiding flooded areas and swift-moving water • Evacuating to higher ground if necessary	*Precaution* • Stay informed through weather forecasts and alerts • Evacuation procedures • Securing outdoor items and windows • Finding a safe shelter
D. Making Generalizations	 	Instruct the learners to make a short video to explain the graphic organizer they made for the generalization part. Ask the learners to share with their seatmate about three sentences of their answer to these questions:

	https://bookcreator.com/2023/06/10-best-graphic-organizers-for-teachers/ **1. Learners' Takeaways** Ask the students to use the graphic organizer in the above activity. They will explain the lessons they have learned this week through a short video. **2. Reflection on Learning** *Instructions for the learners:* 1. Answer the question in three sentences only as you share this with your seatmate, *"In what way will the learning you have for this lesson help you and your family? Why is it important to share this with others?"* 2. Share the video you made with a family member and ask them if this has been helpful to them.	1. In what way will the learning you have for this lesson help you and your family? 2. Why is it important to share this with others? Over the weekend, they share the video they made with their family member/s.

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		**NOTES TO TEACHERS**
A. Evaluating Learning	**FORMATIVE ASSESSMENT** Answer the following: 1. What is extreme weather? It is a weather that _____. a. is always the same b. is unusual and dangerous c. only happens in spring d. is predicted easily 2. Which of the following is an example of extreme weather? a. Sunny day b. Rainy day c. Stormy day d. Cloudy day 3. What should you do during a thunderstorm? a. Go outside and play b. Stay indoors and avoid metal objects c. Fly a kite	**Answer Key:** 1. b) Weather that is unusual and dangerous 2. c) Stormy Day 3. b) Stay indoors and avoid metal objects 4. c) In a basement or storm shelter 5. a) A lot of rain falling quickly or a river overflowing 6. a) Earthquake 7. b) Stay indoors and close windows and doors 8. b) A snowstorm with strong winds and low visibility 9. b) By staying informed and following safety instructions

	d. Use a metal umbrella 4. What is the safest place to be during a tornado? a. In a car b. Under a tree c. In a basement or storm shelter d. Near a window 5. What causes a flood? a. A lot of rain falling quickly or a river overflowing b. Too much sunshine c. People watering their gardens d. A lack of trees 6. Which of the following is NOT a form of extreme weather? a. Earthquake b. Tornado c. Drought d. Flooding 7. What should you do if there's a wildfire nearby? a. Go for a walk b. Stay indoors and close windows and doors c. Light a campfire d. Water your garden 8. What is a blizzard? a. A type of rainstorm b. A snowstorm with strong winds and low visibility c. A strong heavy rain d. A fast-spinning column of air 9. How can we stay safe during extreme weather events? a. By ignoring weather warnings b. By staying informed and following safety instructions c. By going outside to take pictures d. By wearing sunglasses at all times 10. Which of the following is an act of nature that occurs when too much rain forces streams, rivers, and lakes to overflow?	10. d) Flooding

	a. Hurricane b. Tornado c. Blizzard d. Flooding			
A. Teacher's Remarks	*Note observations on any of the following areas:*	**Effective Practices**	**Problems Encountered**	
	strategies explored			
	materials used			
	learner engagement/ interaction			
	Others			
B. 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?*			