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Lesson Exemplar for Science

Quarter 3
Lesson
6

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Lesson Exemplar for Science
Quarter 3: Lesson 6 of 8 (Week 6)
SY 2025-2026

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SCIENCE (EARTH AND SPACE) /QUARTER 3 / GRADE 8

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	Precautionary Measures Before, During, and After a Typhoon
B. Performance Standards	By the end of the quarter, learners demonstrate precautionary measures before, during, and after a typhoon, including following advisories, storm signals, and calls for evacuation given by government agencies in charge.
C. Learning Competencies and Objectives	***Learning Competencies*** 1. Demonstrate precautionary measures before, during, and after a typhoon 2. Interpret and respond to advisories, storm signals, and evacuation orders issued by government agencies *Learning Objectives: At the end of the lesson, learners must be able to:* *1. identify and interpret different types of advisories, storm signals, and evacuation orders by government agencies,* *2. discuss the precautionary measures before, during, and after a typhoon,* *3. explain the role of government agencies in disseminating information and ensuring public safety during typhoons, and* *4. evaluate the accuracy and reliability of typhoon advisories.*
D. Content	A. Introduction to Typhoon Preparedness a. Precautionary Measures Before a Typhoon b. Precautionary Measures During a Typhoon c. Precautionary Measures After a Typhoon B. Warnings and Advisories from Government Agencies a. Fact-Checking Information
E. Integration	**Information Technology**: Digital Literacy Skills - refer to the ability to effectively navigate, evaluate, and critically engage with digital technologies and online information.

II. LEARNING RESOURCES
Kansai Electric Power Co., Inc. (n.d.). Typhoon and flood prevention measures. Kansai Electric Power Co., Inc. https://www.kansai-td.co.jp/english/home/teiden-info/preparation/typhoon-flood.html Philippine Atmospheric, Geophysical and Astronomical Services Administration. (n.d.). *Storm surge*. Department of Science and Technology. https://www.pagasa.dost.gov.ph/information/storm-surge RIL Hub. (2020, December 21). Understanding Philippine Storm Warning Signals (PSWS). RIL Hub. https://rilhub.org/2020/12/21/philippine-storm-warning-signal-psws/ Sarao, Zacarian. (2023, May 22). Pagasa: Cloud cluster spotted in eastern Mindanao may develop into LPA. *Inquirer.net*. https://newsinfo.inquirer.net/1943329/fwd-weather-for-wednesday-may-22 Zoleta, Venus. (2023). NDRRMC Rainfall Warning: What It Means and How to Prepare. Moneymax. https://www.moneymax.ph/government-services/articles/ndrrmc-rainfall-warning UNTV News and Rescue. (2019, December 3). *How to prepare for a typhoon*. https://youtu.be/KDZ_AfZ1HwA GMA Integrated News. (2023, July 23). *What to do before, during and after a typhoon*. https://youtu.be/K2ssZnDNgLE Panahon TV. (2013, July 3). *Tropical Cyclone Tracking System*. https://youtu.be/wxFTftOEiDI?si=jorF_GTHnLgQPW0-

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	**DAY 1** **1. Short Review** • Display a weather map or satellite image of a typhoon forming over the ocean and approaching land. • Show an actual satellite image of a cloud cluster east of Mindanao that may form a low-pressure area and affect parts of the country. It is a weather forecast where the cloud cluster is still outside the Philippine Area of Responsibility (PAR) but is expected to approach the country closer. • The teacher will ask the learners to explain typhoon formation and how landmasses and bodies of water affect typhoons. *Guide Questions:* 1. What is Philippine Area of Responsibility (PAR)	Using satellite maps for the students will provide the students with more understanding of the structure and movement of the typhoon. The teacher can also use this YouTube video explained by PAGASA for additional knowledge in understanding the Philippine Area of Responsibility (PAR)

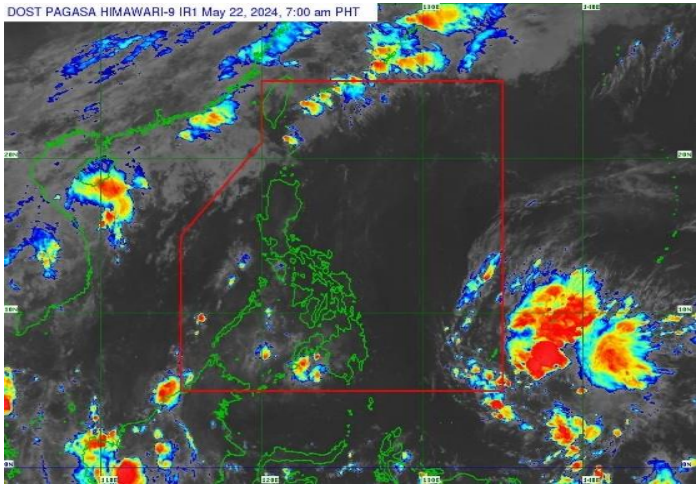
	2. What is the dimension of PAR? 3. What is the role of PAGASA?  Image Source: newsinfo.inquirer.net **2. Feedback (Optional)**	YouTube Video: https://youtu.be/wxFTftOEiDI?si=jorF_GTHnLgQPW0-
B. Establishing Lesson Purpose	**1. Lesson Purpose** • The teacher will show a short video on a news advisory regarding typhoon updates. • Ask them if they have experience watching news advisory on television or any social media platform. • The teacher will ask them to listen to the short video weather update advisory. Listen to important terms mentioned by the news reporter. *Guide Questions:* 1. What is the name of the typhoon, including its path and location? 2. What is the intensity and classification of the typhoon? 3. What are the weather conditions of the affected areas that possibly will experience heavy rainfall, strong winds, storm surges, and flooding.	• Provide guide questions to students before the video to help them focus on key points and important details regarding precautionary measures during typhoon. The following terms may be mentioned by the students: 1. wind signals 2. wind speed 3. intensity 4. heavy rainfall 5. strong winds 6. storm surges

Image Source: https://youtu.be/K2ssZnDNgLE?si=kA3fnJYcn4FfiMkD

- After watching the short video on weather updates, ask the following questions:
  1. Why is it important to listen to weather updates?
  2. What do you think will happen if people do not pay attention to weather updates during a natural disaster? Why is it important to be informed?

2. Unlocking Content Vocabulary

Instructions: Read each definition carefully. Please choose the correct vocabulary term from the word bank and write it in the blank space provided.

CYCLONE	DOH	DSWD
FIRST AID	NDRMMC	PAGASA
PHILIPPINE RED CROSS	STORM SURGE	TYPHOON
WEATHER		

7. flooding
8. landslide prone areas

Answer Key:

PAGASA 1. An agency responsible for assessing and forecasting weather, flood, and other conditions essential for safety and welfare of the people.
STORM SURGE 2. It is the abnormal rise in sea level that occurs during tropical cyclones "bagyo"
TYPHOON 3. It is a giant rotating storm that brings wind, rain, and destruction and it is formed in Northwest of Pacific Ocean.

	_____1. An agency responsible for assessing and forecasting weather, flood, and other conditions essential for safety and welfare of the people. _____2. It is the abnormal rise in sea level that occurs during tropical cyclones "bagyo" _____3. It is a giant rotating storm that brings wind, rain, and destruction and it is formed in Northwest of Pacific Ocean. _____4. It is formed over the South Pacific and Indian Ocean. _____5. It coordinates disaster risk reduction and management efforts among various government agencies. _____6. It manages and distributes relief goods and services to affected populations. _____7. It conducts search and rescue operations and provides emergency medical services. _____8. Ensures the provision of healthcare services during and after disasters. _____9. It refers to short-term atmospheric conditions in a specific time and place. _____10. It involves immediate and temporary medical assistance given to individuals who have been injured or are experiencing health issues due to the storm.	**CYCLONE** 4. It is formed over the South Pacific and Indian Ocean. **NDRMMC** 5. It coordinates disaster risk reduction and management efforts among various government agencies. **DSWD** 6. It manages and distributes relief goods and services to affected populations. **PHILIPPINE RED CROSS** 7. It conducts search and rescue operations and provides emergency medical services. **DOH** 8. Ensures the provision of healthcare services during and after disasters. **WEATHER** 9. It refers to short-term atmospheric conditions in a specific time and place. **FIRST AID** 10. It involves immediate and temporary medical assistance given to individuals who have been injured or are experiencing health issues due to the storm.
C. Developing and Deepening Understanding	**SUB-TOPIC 1: PRECAUTIONARY MEASURES** **1. Explication** • Typhoons with intense wind, heavy rainfall, and potential catastrophic flooding require thorough preparation and vigilant response. There are essential steps to take before, during, and after a typhoon emphasizing the importance of planning and real-time monitoring. • The teacher can start asking the students what are the possible hazards that may be caused during typhoons. • Draw answers from the students about some of the precautionary measures they have taken during typhoons.	

	Activity 1. Observe the picture and reveal the correct word and give explanation of its significance during typhoon**.** **Discussion Points:** **Before a Typhoon:** 1. What are the essential items that should be included in an emergency kit and why are the items important? 2. How can families create and implement an effective evacuation plan? What are the key components to consider? **During a Typhoon:** 1. What steps should individuals take to stay safe if they are sheltering during a typhoon? 2. How can communities effectively communicate and support each other during the height of the storm? **After a Typhoon:** 1. What immediate actions should be taken after a typhoon passes to ensure safety? **DAY 2** **1. Worked Example** • Ask the students, what do you already know about preparing for a typhoon? • Watch a short video to highlight important things to remember: *Guide Questions:* 1. What are the reminders to remember before, during, and after a typhoon? Give examples 2. What items are shown in the video to include in the Go Bag. Explain why? 3. Why do you think it's important to have an emergency kit ready before a typhoon? 4. What are some steps you think you should take to secure your home before a typhoon arrives? 5. Have you ever experienced a typhoon? If so, what safety measures did you and your family take?	See Learning Activity Sheet: *Activity #1: Reveal and Discuss* **Answer keys:** *Scenario 1* PRECAUTIONARY MEASURES Explanation: Picture of a family boarding up windows, to protect their home from strong winds during typhoon. *Scenario 2* ADVISORIES Explanation: A weather alert on the phone. It is important to become alert and aware of updates *Scenario 3* STORM SIGNALS Explanation: Charts showing different public storm warning signals. *Scenario 4* EVACUATION Explanation: People are staying in the evacuation to avoid the danger due to typhoon.

6. What are some potential dangers during a typhoon that people should be aware of?

YouTube Video: https://youtu.be/KDZ_AfZ1HwA?si=l6bhAMt-HqrB55_g

See Learning Activity Sheet: *Activity #2: To-Do List*

2. Lesson Activity

Activity 2.

Give precautionary measures before, during and after the typhoon by filling the three columns.

Answer Key: (answer may vary)

Before	During	After
1. Prepare an emergency kit	1. Stay indoors and away from windows	1. Check for injuries and administer first aid
2. Secure loose outdoor items	2. Listen to weather updates and alerts	2. Avoid flooded areas and fallen power lines
3. Create a family evacuation plan	3. Use a battery-powered radio for information	3. Assess and document property damage for insurance
4. Stock up on food and water supplies	4. Turn off gas and electricity if instructed	4. Clean and disinfect affected areas to prevent disease
5. Charge mobile phones and power banks	5. Shelter in a safe, windowless room	5. Stay informed about relief and recovery efforts

Discussion Points:

The following questions will be asked by the students to have a deeper understanding of what to do during this event**.**

1. Why is it crucial to prepare before, during, and after a typhoon?
2. How can communities work together to support each other before, during and after a typhoon?
3. What are the best sources of information during a typhoon?
4. Why is it important to rely on official warnings and advisories?
5. What are the key actions to take to ensure safety while sheltering in place

DAY 3
SUBTOPIC: Warnings and Advisories from Government Agencies

2. Worked Example
Activity 3.

Identify the name of disaster response agencies and give their roles and functions

Discussion Points:

- Explore how different government agencies have specific mandates and jurisdictions during disasters.
- Discuss the roles of different disaster government agencies and why they are important.
- Discuss the importance of effective communication and collaboration among government agencies during disasters.
- Discuss the impact of misinformation and fake news during disasters.
- Explore how false or misleading information can spread rapidly through social media and other channels, affecting public perception, emergency response efforts, and community resilience.

DAY 4
3. Lesson Activity
SUBTOPIC: Fact-Checking Information

Activity 4.

See Learning Activity Sheet: *Activity #4: Let us check!*

Discussion Points:

- What are the potential risks of relying on unofficial sources for information about class suspension during a typhoon?
- How might inaccurate or misleading information impact decision-making and safety during an emergency?
- How can media literacy skills help individuals discern reliable information from misinformation or rumors during a typhoon advisory?

See Learning Activity Sheet: *Activity #3: Disaster Response Agencies: Roles and Functions*

Answer Key: Activity #3

Name of Government Agency (abbreviation & full name)	**Role and Function During Disaster**
PAGASA (Philippine Atmospheric, Geophysical and Astronomical Services Administration)	Monitors weather conditions and issues typhoon warnings and advisories.
NDRRMC (National Disaster Risk Reduction and Management Council)	Coordinates disaster response and relief operations.
DSWD (Department of Social Welfare and Development)	Provides aid and relief to affected communities.
DOH (Department of Health)	Ensures public health and medical response during disasters
DSWD (Department of Social Welfare and Development)	Provides aid and relief to affected communities.
DPWH (Department of Public Works and Highways)	Repairs and maintains infrastructure affected by disasters.

D. Making Generalizations	**1. Learners' Takeaways** • Students will be asked by the teacher during oral recitation about their takeaways. **2. Reflection on Learning** • The learners will write a reflection journal documenting their thoughts, questions, and insights on the importance of learning precautionary measures during typhoon as well as following advisories, storm signals, and calls for evacuation given by government agencies in charge.	Writing journals about the lesson will provide teachers with the ideas that students learn from the lesson on typhoon formation including its factors.

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		**NOTES TO TEACHERS**
A. Evaluating Learning	**1. Formative Assessment** Choose the letter of your answer. 1. Which precautionary measures should individuals take to prepare for potential power outages during a typhoon? a) Stockpiling perishable food items in the refrigerator. b) Relying on candles as the primary source of illumination. c) Charging electronic devices and portable power banks in advance. d) Leaving windows and doors open to allow natural light to enter the home. 2. What is the recommended precautionary measure for individuals living in flood-prone areas during a typhoon? a) Building additional rooms or structures at ground level to accommodate floodwaters. b) Constructing barriers or levees around the perimeter of the property. c) Purchasing flood insurance to cover potential damage to property and belongings. d) Implementing an evacuation plan and relocating to higher ground before the onset of flooding.	**ANSWER KEY** 1. C 2. D 3. A 4. B 5. B

	3. What is the recommended precautionary measure to protect electronic devices and appliances during a typhoon-related power outage? a) Unplugging all devices and appliances to prevent damage from power surges. b) Continuously using electronic devices until the power is restored. c) Covering devices and appliances with plastic sheets or tarps to shield them from moisture. d) Leaving devices and appliances plugged in to prevent them from losing power. 4. During a typhoon advisory, students encounter conflicting information about class suspension from various sources. Which demonstrates information literacy? a) Believing information from a popular social media influencer. b) Following official announcements from the Department of Education or local government. c) Trusting rumors circulating among peers. d) Ignoring all sources of information until receiving a direct notification from school authorities. 5. Before a typhoon hits, what is the most crucial precautionary measure individuals should take to ensure their safety? a) Leaving windows and doors open to equalize pressure inside and outside the home. b) Securing loose outdoor objects or furniture to prevent them from being thrown away. c) Stockpiling perishable food items in the refrigerator. d) Ignoring official advisories and relying on personal judgment to determine the severity of the storm. **2. Homework (Optional)**	The teacher may give homework for extended deliberate practice.

B. Teacher's Remarks	*Note observations on any of the following areas:*	**Effective Practices**	**Problems Encountered**	This lesson design component prompts the teacher to record relevant observations and/or critical teaching events that he/she can reflect on to assess the achievement of objectives. The documenting of experiences is guided by possible areas for observation including teaching strategies employed, instructional materials used, learners' engagement in the tasks, and other notable instructional areas. Notes here can also be on tasks that will be continued the next day or additional activities needed.
	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?*			This lesson design component guides the teacher in reflecting on and for practice. Entries on this component will serve as inputs for the LAC sessions, which can center on sharing the best practices discussing problems encountered and actions to be taken; and identifying anticipated challenges and intended solutions. Guide questions or prompts may be provided here.