



School:		Grade Level:	7
Teacher:		Learning Area:	Science
Teaching Dates and Time:		Quarter:	Fourth
		Week:	Week 4-Day 1

I. CONTENT, STANDARDS AND LEARNING COMPETENCIES		ANNOTATIONS
A. CONTENT STANDARDS	The learners learn that the damage or effects on communities depend on the magnitude of and distance from an earthquake.	
B. PERFORMANCE STANDARDS	By the end of the Quarter, learners will appreciate the value of using systems to analyze and explain natural phenomena and demonstrate their understanding of the dynamics of faults and earthquakes. They are confident in identifying and assessing the earthquake risk for their local communities using authentic and reliable secondary data. They use the country's disaster awareness and risk reduction management plans to identify and explain to others what to do in the event of an earthquake. Learners explain the cause and effects of secondary impacts that some coastal communities may experience should a tsunami be produced by either local or distant earthquake activity. Learners use reliable scientific information to identify and explain how solar energy influences the atmosphere and weather systems of the Earth and use such information to appreciate and explain the dominant processes that influence the climate of the Philippines.	
C. LEARNING COMPETENCIES	Learning Competencies: Refer to the local disaster readiness plans to demonstrate what to do during and after an earthquake Learning Competencies: Describe procedures that the authorities have in	

	place to alert communities of pending tsunamis and what procedures can be implemented should a tsunami impact a community;	
D. LEARNING OBJECTIVES	<p>Learning Objectives:</p> <ol style="list-style-type: none"> 1. Identify the key components of the local disaster readiness plan related to earthquakes; 2. Demonstrate the correct technique for "Drop, Cover, and Hold On" during simulated earthquake drills.; and 3. Increased confidence in their ability to respond effectively during and after an earthquake by following the local disaster readiness plan. <p>Learning Objectives:</p> <ol style="list-style-type: none"> 1. Describe the communication channels through which authorities disseminate tsunami warnings; 2. Demonstrate the ability to follow evacuation procedures in response to a tsunami warning; and 3. Appreciate the importance of preparedness for tsunamis. 	

I. CONTENT

Earthquake and Tsunami Preparedness

II. LEARNING RESOURCES

A. REFERENCES	<ul style="list-style-type: none"> • The San Andreas Fault - VIII. "Magnitude" and "Intensity." (n.d.). https://pubs.usgs.gov/gip/earthq3/magnitude.html • Oxford Languages Dictionary • simulate. (2024). https://dictionary.cambridge.org/dictionary/english/simulate • The Modified Mercalli Intensity Scale U.S. Geological Survey. (n.d.). https://www.usgs.gov/programs/earthquake-hazards/modified-mercalli-intensity-scale
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B. OTHER LEARNING RESOURCES	
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III. TEACHING AND LEARNING PROCEDURE

BEFORE/PRE-LESSON PROPER

ACTIVATING PRIOR KNOWLEDGE

Short Review

"Drop, Cover, and Hold On" is the **recommended safety procedure** during an earthquake to protect yourself from falling objects and structural damage.

1. **Drop** – As soon as you feel shaking, immediately **drop to your hands and knees** to prevent being knocked over.
2. **Cover** – Take cover **under a sturdy table or desk** to shield yourself from debris. If no cover is available, use your arms to protect your head and neck.
3. **Hold On** – Firmly **hold onto the furniture** to keep it steady until the shaking stops.

Practicing this technique regularly helps ensure a **quick and safe response** during real earthquakes. Staying calm and following these steps can **reduce injuries and save lives**. Always be prepared and aware of safe spaces in your surroundings!

LESSON PURPOSE/INTENTION

Lesson Purpose

The purpose of this lesson is to equip students with the **knowledge, skills, and mindset** needed to effectively prepare for and respond to disasters. By understanding different types of hazards, practicing safety procedures like "**Drop, Cover, and Hold On,**" and creating emergency plans, students will develop a sense of **responsibility and readiness** in times of crisis. This lesson aims to foster **awareness, resilience, and proactive decision-making** to minimize risks,

	<p>protect lives, and ensure community safety during emergencies.</p>	
<p>LESSON LANGUAGE PRACTICE</p>	<p>Unlocking Content Vocabulary</p> <ol style="list-style-type: none"> 1. Disaster – A sudden event that causes serious harm to people, property, and the environment, such as earthquakes, floods, and typhoons. 2. Preparedness – The state of being ready and equipped to respond to emergencies effectively. 3. Hazard – A potential danger or risk that can cause damage, such as natural disasters or human-made threats. 4. Evacuation – The process of safely leaving an area during an emergency to avoid danger. 5. Emergency Kit – A collection of essential supplies (food, water, medicine, flashlight, etc.) needed for survival during a disaster. 6. First Aid – Immediate medical care given to an injured person before professional help arrives. 7. Mitigation – Actions taken to reduce the impact of disasters, such as building earthquake-resistant structures or planting trees to prevent floods. 8. Response – The actions taken during and immediately after a disaster to ensure safety and survival. 9. Recovery – The process of rebuilding and restoring affected areas after a disaster. 	

10. **Resilience** – The ability to adapt, recover, and stay strong after experiencing a disaster.

These key terms will help **better understand disaster preparedness** and the importance of being ready before, during, and after emergencies.

DURING/LESSON PROPER

READING THE KEY IDEA/STEM

Disaster Preparedness

Disaster Management Cycle



Preparedness

- Preparedness is a strategy to minimize hazards' adverse effects through effective precautionary measures that ensure a timely, appropriate, and efficient organization and delivery of response and relief action.
- The goals of disaster preparedness are knowing what to do in a disaster's aftermath, knowing how to do it, and being equipped with the right tools to do it effectively



- Government preparedness

→ Government preparedness actions may be grouped into following general categories: planning; exercise; training; equipment; and statutory authority.

1. Planning:

Indicates detail about the responsibilities and strategies in disaster management

- Direction and control
- Notification and warning
- Evacuation
- Communications
- Public works
- Public information
- Search and rescue

DON'T WAIT. COMMUNICATE.
MAKE YOUR EMERGENCY PLAN TODAY.



Emergency medical services and mass care

- Mortuary services
- Security and perimeter control
- Inclusion of military resources
- Transportation
- Traffic control
- Relief
- Short- and long-term recovery -
- Financial management
- International coordination
- Volunteer management
- Donations management
- Vulnerable populations

2. Exercise

- Preparedness exercises allow those involved in emergency and disaster response to practice their roles and responsibilities before an actual event occurs.
- Exercises not only prepare the individuals to carry out their duties but also help to find problems in the plan in non-emergency situations.

Component of a comprehensive exercise program

• **Drill:** It is a controlled, supervised method by which a single disaster management operation or function is practiced or tested.

- **Drills** are most effective when they mimic real-life situations

- **Tabletop exercise:** It is designed to allow disaster management officials to practice the full activation of the emergency response plan within the confines of a controlled, low-stress discussion scenario.

- **Functional exercise:** It is the tests and practices of disaster managers' capabilities by simulating an event to which they must respond.

- **Full-scale exercise:** The full-scale exercise is a scenario-based event that seeks to create an atmosphere closely mimicking an actual disaster.

3. Training

Disaster response officials are more effective if they are trained to do their jobs

- Training concentrates on following activities
 - Evacuation
 - Mass care
 - Mass fatalities management
 - Debris management
 - Flood-fighting operations
 - Warning coordination
 - Spontaneous volunteer management
 - Hazardous materials
 - Cyclonic storm response
 - Urban and wilderness search and rescue
 - Radiological response
 - Crowd control
 - Response to terrorist attacks
 - Wildfire and wild land fire response



4. Equipment

- The development of tools and other equipment to assist in disaster management
- Fire suppression equipment

- Rescue equipment
- Personal Protective Equipment (PPE)
- Disaster medical care
- Public warning and alert systems



DEVELOPING and DEEPENING UNDERSTANDING OF THE KEY IDEA/STEM

Group Activity: Disaster Preparedness Simulation & Action Plan

Objective:

Develop a deeper understanding of disaster preparedness by identifying potential hazards, creating an emergency plan, and practicing safety measures.

Materials Needed:

- Manila paper or poster board
- Markers, pens, and colored paper
- Scenario cards (earthquake, flood, fire, typhoon, etc.)
- Emergency kit checklist (optional)

Procedure:

Part 1: Hazard Identification (10 minutes)

1. Divide the class into small groups (4-5 students per group).
2. Assign each group a different type of disaster (e.g., earthquake, flood, fire, typhoon).

	<p>3. Each group lists possible hazards and risks associated with their assigned disaster.</p> <p>4. Groups present their findings to the class.</p>	
AFTER AFTER/POST-LESSON		
MAKING GENERALIZATIONS AND ABSTRACTIONS	<p>Worksheet</p> <p>Synthesis/Extended</p> <p>What you have learned</p> <p>In a one sheet of paper write something you understand about the lesson we discussed today.</p>	
EVALUATING LEARNING	<p>Direction: Read each question carefully and choose the best answer. Encircle the letter of the correct answer.</p> <p>1. What is the main goal of disaster preparedness?</p> <p>a) To prevent all disasters from happening b) To respond quickly and effectively during emergencies c) To wait for rescue teams before taking action d) To ignore safety drills and warnings</p> <p>2. Which of the following is an essential item in an emergency kit?</p> <p>a) Toys and video games b) Extra clothes and makeup c) Non-perishable food and bottled water d) Jewelry and expensive gadgets</p> <p>3. What should you do first during an earthquake?</p> <p>a) Run outside immediately b) Drop, Cover, and Hold On under sturdy furniture c) Stand near a window for a better view d) Shout for help as loud as possible</p> <p>4. Why is it important to have an evacuation plan?</p> <p>a) To find the nearest mall or shopping area b) To safely exit a dangerous place during a disaster c) To make the community practice running fast</p>	<p>Answers:</p> <p>1. b) To respond quickly and effectively during emergencies</p> <p>2. c) Non-perishable food and bottled water</p> <p>3. b) Drop, Cover, and Hold On under sturdy furniture</p> <p>4. b) To safely exit a dangerous place during a disaster</p> <p>5. a) Taking actions to reduce the impact of disasters</p>

	<p>d) To increase panic and confusion during emergencies</p> <p>5. What does "mitigation" mean in disaster preparedness?</p> <p>a) Taking actions to reduce the impact of disasters</p> <p>b) Waiting for help instead of acting</p> <p>c) Ignoring safety measures</p> <p>d) Letting others handle emergency situations</p>	
ADDITIONAL ACTIVITIES FOR APPLICATION OR REMEDIATION (IF APPLICABLE)		
REMARKS		
REFLECTION		

Prepared by:

Subject Teacher

Reviewed by:

Master Teacher/Head Teacher