	School:		**Grade Level:**	**7**
	Teacher:		**Learning Area:**	**Science**
	Teaching Dates and Time:		**Quarter:**	**Fourth**
			Week:	**Week 3-Day 5**

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: Explain how earthquakes result in tsunamis that devastate shoreline communities	

D. LEARNING OBJECTIVES	**Learning Objectives:** 1. Identify the different types of seismic waves; 2. Explain how earthquakes result in tsunamis; and 3. Realize how tsunamis devastate shoreline communities.	
I. CONTENT		
Earthquake Scenarios and Tsunami		
II. LEARNING RESOURCES		
A. REFERENCES	● Tsunami | Run-up and Inundation, tidal wave, sea level & inundation. (n.d.). https://www.sms-tsunami-warning.com/pages/runup- Inundation ● Libretexts. (2022, May 6). 8.3: Seismic waves. Geosciences LibreTexts. https://geo.libretexts.org/Bookshelves/Geology/Fundamentals_of_Geology_(Schulte)/08%3A_Earthquakes/8.03%3A_Seismic_Waves ● Bhuyan, S. (2020, April 11). Seismic Waves: Definition, Types, Examples, and diagram. Science Facts. https://www.sciencefacts.net/seismic-waves.html ● Tsunamis. (n.d.). Environment. https://www.nationalgeographic.com/environment/article/tsunamis	
B. OTHER LEARNING RESOURCES		
III. TEACHING AND LEARNING PROCEDURE		
BEFORE/PRE-LESSON PROPER		

ACTIVATING PRIOR KNOWLEDGE		
LESSON PURPOSE/INTENTION		
LESSON LANGUAGE PRACTICE		
DURING/LESSON PROPER		
READING THE KEY IDEA/STEM		
DEVELOPING and DEEPENING UNDERSTANDING OF THE KEY IDEA/STEM		
AFTER AFTER/POST-LESSON		
MAKING GENERALIZATIONS AND ABSTRACTIONS		
EVALUATING LEARNING	1. Assessment 1. Which of the following statements best describes the motion of Love waves during an earthquake? A. Love waves travel in a rolling motion parallel to the direction of wave propagation. B. Love waves travel in a rolling motion perpendicular to the direction of wave propagation. C. Love waves travel in a compressional motion perpendicular to the direction of wave propagation. D. Love waves travel in a compressional motion parallel to the direction of wave propagation.	**Answers:** 1. B. Love waves travel in a rolling motion perpendicular to the direction of wave propagation. 2. A. Underwater earthquakes release energy that generates seismic waves, which propagate through the water and create tsunami waves. 3. A. The magnitude of the earthquake that triggered the tsunami. 4. C. Surface waves interact with the seafloor, creating additional energy and increasing the height of tsunami waves. 5. A. By constructing seawalls and levees to absorb the energy of tsunami waves.

	2. How do earthquakes occurring underwater or along subduction zones contribute to the formation of tsunamis? A. Underwater earthquakes release energy that generates seismic waves, which propagate through the water and create tsunami waves. B. Subduction zone earthquakes cause the sudden uplift of the seafloor, displacing water and generating tsunami waves. C. Underwater earthquakes trigger volcanic eruptions, leading to the formation of tsunamis. D. Subduction zone earthquakes cause the release of toxic gases, resulting in the formation of tsunamis. 3. What is the primary factor that determines the extent of devastation caused by tsunamis on shoreline communities? A. The magnitude of the earthquake that triggered the tsunami. B. The frequency of tsunami events in the region. C. The proximity of the shoreline community to the earthquake epicenter. D. The presence of advanced warning systems in the affected area. 4. In what way do surface waves contribute to the destructive power of tsunamis? A. Surface waves propagate quickly through the water, causing widespread flooding. B. Surface waves generate strong winds that intensify the impact of tsunamis on shoreline communities.	

	C. Surface waves interact with the seafloor, creating additional energy and increasing the height of tsunami waves. D. Surface waves carry debris and sediment, exacerbating the damage caused by the initial wave impact. 5. How can coastal communities mitigate the impact of tsunamis on their shoreline infrastructure? A. By constructing seawalls and levees to absorb the energy of tsunami waves. B. By encouraging residents to build homes closer to the coastline for easier evacuation during tsunamis. C. By relying solely on early warning systems to evacuate residents before the arrival of a tsunami. D. By conducting regular drills and exercises to test emergency response plans.	
ADDITIONAL ACTIVITIES FOR APPLICATION OR REMEDIATION (IF APPLICABLE)		
REMARKS		
REFLECTION		

Prepared by:

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Subject Teacher

Reviewed by:

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Master Teacher/Head Teacher