

7

Learning Activity Sheet for Science

Quarter 4

Lesson

2

Worksheet for Science Grade 7
Quarter 4: Lesson 2 (Week 2)
SY 2023-2024

This material is intended exclusively for the use of teachers participating in the implementation of the MATATAG K to 10 Curriculum during the School Year 2023-2024. It aims to assist in delivering the curriculum content, standards, and lesson competencies. Any unauthorized reproduction, distribution, modification, or utilization of this material beyond the designated scope is strictly prohibited and may result in appropriate legal actions and disciplinary measures.

Borrowed content included in this material are owned by their respective copyright holders. Every effort has been made to locate and obtain permission to use these materials from their respective copyright owners. The publisher and development team do not represent nor claim ownership over them.

Development Team

Writers: Loreza M. Argente (Balian Integrated National High School)

Validator: Marc Vener C. Del Carmen (Philippine Normal University)

Management Team

Philippine Normal University
Research Institute for Teacher Quality
SiMERR National Research Centre

Every care has been taken to ensure the accuracy of the information provided in this material. For inquiries or feedback, please write or call the Office of the Director of the Bureau of Learning Resources via telephone numbers (02) 8634-1072 and 8631-6922 or by email at blr.od@deped.gov.ph.

LEARNING ACTIVITY SHEET

Learning Area:	Science 7	Quarter:	4th Quarter
Lesson No.:	2	Date:	
Lesson Title/ Topic:	Earthquake		
Name:		Grade & Section:	

I. Activity No. 2.1: Assessing Earthquake Risk in Our Community

II. Objective(s): At the end of the activity, you should be able to use the FaultFinder app to identify where the nearest fault system is and assess the risk of earthquakes to your local community

III. Materials Needed: gadget with internet access, access to FaultFinder,

IV. Instruction:

Use your gadget to access the FaultFinder app developed by DOST then fill in the table with the needed data, and answer the questions that follow.

Your Location: _____
 Nearest Active Fault Trace: _____
 Fault Name: _____
 Segment Name: _____
 Year Mapped: _____
 Mapping Scale Used: _____

Guide Questions:

1. When is the most recent record of an earthquake in your community?

2. Does your community have old buildings? _____
3. Does your community have a big population in one area? _____
4. Do you think your community is prepared for an earthquake? Why? Why not?

Rubric or Score Guide

Advanced (5 points)	Proficient (4)	Nearly Proficient (3)	Emerging (2)	Needs Improvement (1)
All of the required fields were answered, and the answers to guide	All of the required fields were answered, and the answers were well-	Some of the required fields were answered, and the answers were somewhat	Some of the required fields were answered, but the answers were not organized	Few of the required fields were answered, and the answers were not organized

questions were well-organized and completely explained in detail.	organized and completely explained, but not in detail.	organized and explained but not in detail.	and not explained in detail.	and not explained in detail.
---	--	--	------------------------------	------------------------------

V. Extended Practice: World's Historical Earthquake

To further reinforce the concepts learned, students can conduct additional research on specific earthquakes from history, including their location, date, magnitude, and significant impacts (e.g., the San Francisco earthquake of 1906, the Japan earthquake and tsunami of 2011) and analyze how tectonic plate movements contributed to these events. You may use the template below for your answer.

Name: _____ Date Submitted: _____	
Section: _____	
World's Historical Earthquake	
Location:	_____
Date:	_____
Magnitude:	_____
Significant Impacts:	_____

LEARNING ACTIVITY SHEET

Learning Area:	Science 7	Quarter:	4th Quarter
Lesson No.:	2	Date:	
Lesson Title/ Topic:	Earthquake Modeling		
Name:		Grade & Section:	

I. Activity No. 2.2: Modeling Earthquake Scenarios (30 mins)

II. Objective(s): At the end of the activity, you should be able to understand the concepts of earthquake epicenter and focus, earthquake magnitude, and intensity.

III. Materials Needed: Modeling clay or playdough (different colors if possible), toothpicks, large shallow tray, sand or gravel, plastic syringe

IV. Instructions:

1. Use the modeling clay or playdough to create a big cross-section model of the Earth's surface.
2. Use a different color of clay to represent the focus of the earthquake within the Earth's crust. You can place this clay at varying depths to simulate earthquakes of different magnitudes.
3. Use the toothpick to create structures on the surface of your model representing buildings, roads, and other infrastructure.
4. Simulate various earthquake magnitudes by pressing down on the focal clay with increasing force, from the smallest force to the highest force, generating variable amounts of shaking and devastation on the surface.
5. Fill the large shallow container with sand or gravel to represent the ocean floor.
6. Add a layer of water to the container to simulate the ocean.
7. Use the plastic syringe to create underwater disturbance representing earthquakes.

Guide Questions:

1. What happens to the amount of damage in the infrastructure as you increase the force on the focus?

2. If the clay represents the ocean plate and water surrounds the plate, how do you think the water will react with each force that you apply?

Rubric or Score Guide

Advanced (5 points)	Proficient (4)	Nearly Proficient (3)	Emerging (2)	Needs Improvement (1)
The model represents the anatomy of an earthquake, and the answers to guide questions were well-organized and completely explained in detail.	The model represents the anatomy of an earthquake, and the answers were well-organized and completely explained, but not in detail.	Some of the required parts in the anatomy of an earthquake is missing, and the answers were somewhat organized and explained but not in detail.	Some of the required parts in the anatomy of an earthquake is missing, but the answers were not organized and not explained in detail.	Most of the required parts in the anatomy of an earthquake is missing, and the answers were not organized and not explained in detail.