



SELF-LEARNING MODULE

GRADE 9

QUARTER 1

**WEEK 8
HEALTH**



**MOST
ESSENTIAL
LEARNING
COMPETENCIES**

Suggests ways to prevent and manage environmental health issues
Code: H9CE-le-f-13

TOPICS

**Community and Environmental Health
PROJECT ASSESSMENT**



EXPECTATION

At the end of this module, you are expected to :

- a. Identify environmental health issues
- b. Suggest ways to prevent and manage environmental health issues
- c. Acknowledge the importance of preventing and managing environmental issues
- d. This module will provide real life experiences and opportunities to apply previous learning to areas that affect your present situation like experiencing community quarantine due to COVID 19.
- e. Specifically, this module will help you to make decisions about buildings, school services and other structures and act on the development and maintaining of a healthy dream community and execute ways of implementing environmental projects in school and in the community as well.



BRIEF INTRODUCTION

Natural Resources and Biodiversity explains why the Philippines is a rich country. Putting our home into the rare list of nations which have both a hotspot and mega diversity area for over 6000 plant species and also numerous animal species inhabited this area. However, despite—or perhaps because of— their richness and massive importance to the environment and humans as well, the forests face continuing destruction and possible extinction.

The Most Pressing Environmental Problems in the Philippines Today



DEFORESTATION is the destruction of big areas of forests. It means the cutting down of mature forests and woodland for non- forestry purposes. No new trees are planted and so the total area of forest decreases. Humans have cut down forests for many reasons and have built their economies on exploiting natural resources.



FLASH FLOOD is a sudden flood of great volume, usually caused by a heavy rain. Flood is one of the most dangerous natural disasters. Example of this happened on August 2019 in Bataan where flashfloods hit 11 towns and 1 city where 8,000 were affected.



ILLEGAL MINING is defined as the extraction of valuable minerals or geological materials from the earth from an ore body. Did you know that Philippines is the fifth most mineral-rich country in the world for gold, nickel, copper, and chromite. It is home to the largest copper-gold deposit in the world. The Mines and Geosciences Bureau has estimated that the country has an estimated \$840 billion worth of untapped mineral wealth, as of 2012.



SOIL EROSION happens when soil and rock are moved from one place to another by wind, water, and gravity. It is the displacement of the upper layer of the soil.



POLLUTION means any alteration of the physical, chemical and biological properties of water, air and/or land resources. It is an introduction of harmful materials into the environment called pollutants.

In doing a project assessment, it is more important for you to understand the concept of needs assessment. A thorough needs assessment will contribute to program planning, monitoring and evaluation, as well as project accountability and is a key step in the success of a project. Although we are in a community quarantine due to Covid-19. You will first consider while doing activities, remember that your safety will not be compromised. Different activities will

brighten you up while expressing your knowledge about helping your community and the school as well. You will be provided with the activities which will in turn lead to a greater awareness of solid waste management and maximize your available resources at home through indoor or outdoor planting during the pandemic and while experiencing community quarantine. It is expected thereafter that such practices will be used by you to influence the other member of your family and your neighbor as well.

 **ACTIVITY 1**

The following are different scenarios we encounter every day. Little did we know, these circumstances greatly affect our environmental health. Read each scenario carefully and suggest ways on how to prevent and manage these environmental health issues.

1. Every Monday morning, your neighbor is burning their solid wastes inside their backyard. It has a very awful smell that your new born brother may inhale. What will you do?

2. Your community became famous because of your fish products. As the time passes by, you have noticed that the fishermen in your community are using dynamite in fishing. Because of this, the fish products become low in quality. What will you do?

3. Because of urbanization, many mountains or high land areas are converted into subdivisions and commercial spaces. What would be the possible effects of this practice and what will do you to stop this?

4. Flash flood is a very common natural disaster happens every time especially when there is a heavy rain due to typhoon. What are the practices that a young citizen like you can do to help this happening to be prevented?

Mining industry in the Philippines has been a controversial issue once again. What are the things you think should be taken into consideration to minimize the effects of the said industry to environmental health?

ACTIVITY 2

4PICS – 1WORD

Identify the word that is being described from the given pictures below . Arrange the jumbled letters to get your answer.



n e c e t a n ans. _____



a l p n _____ ans. _____



_____ r e v u y s .. ans. _____



ACTIVITY 3

CANTEEN SURVEY

Recall your experiences when you were in your school canteen during your break time. Find out if the school canteen complies with the requirements on food sanitation.

A. 1. CHECKLIST

Health Requirements	YES	NO	REMARKS
Presence of health Certificates of Canteen Personnel			
Provision of enough clean water supply			
Presence of clean and safe kitchen, lavatory, and comfort room			
Proper food preparation, food storage and food serving			
Proper lighting and ventilation			
Proper waste disposal			
Control of rodents, cockroaches, flies, pests, etc.			
Availability of drinking water			
Ample water supply for hand washing			
Regular water potability testing			
Others			

A. 2. Study the result of your checklist form. Answer the following questions.

1. How many items were complied with? Which items?
2. How many items were not complied with? Which items?
3. Write down your observations based on your checklist.
4. Based on the result of your answer, what recommendations or suggestions can you give to improve and maintain the cleanliness and safety of the school canteen.

B. HOUSEHOLD CHORES CHECKLIST

Household Solid Waste Management Practice

On the space provided before the number write YES if you agree in the statement on solid waste management practice and NO if otherwise.

_____ 1. Improper waste disposal is a threat to the environment.

_____ 2. Waste segregation is beneficial to my house.

_____ 3. Household waste management is the sole responsibility of my parents.

_____ 4. Solid waste collection and disposal or household waste disposal is the sole of local authorities.

_____ 5. No garbage is left uncollected in the designated area.

D. I HAVE A GREEN THUMB!

Students will practice their natural skills for gardening during the pandemic. They will take the opportunity to make plants grow within 1 month. Students will prepare the following:

1. loam soil
2. large pot or basin you can use empty 6 liters of mineral water (cut the upper part to make a container)
3. water spinach (kangkong) or sweet potato tops (talbos ng kamote)

PROCEDURES

1. Ask your mother to choose a healthy bundle of kangkong or potato tops leaves when she buys them at the market.
2. Use the leaves for cooking but leave the top 6-inch portion, up to the 4th leaf node.
3. When planting in a container, use a rich loamy soil mixed with compost. Choose a container with at least 12 inches in depth and diameter.
4. 1. Water the plants thoroughly. Wait for 3 – 4 weeks, for you can harvest your water spinach or sweet potato. Ready to cook.

NOTE: Alternative plants: alugbati, pechay, tomato seed



REMEMBER

Deforestation

- Soil erosion •Landslides •Greenhouse effect
- Denuded upland Silting of rivers and dams
- Degraded watershed Flooding Destruction of corals along the coast

Flash floods

- Causes of diseases such as Cholera and other water borne diseases •Loss of life
- Contamination of drinking water
- Destruction of Sewage System
- Destruction of dams and destruction of

Soil Erosion

- Unproductive use of farmland •Difficulty in raising of livestock
- silting of artificial lakes
- loss of soil and vegetation which causes climate changes

Oil Spill

- Suffocation of marine mammals
- death of trees from oil in roots

Coral Reef Degradation

- Reduction of species diversity and richness
- Alteration in the size structure of target species
- Loss of edible reef fish

Illegal Mining

- Water poisoning of all the living things in it
- Destruction of beautiful coral reefs
- Bareness of land

Disastrous Current Environmental Issues

Environmental Issue	Cause/s
Air Pollution	It arises from the burning of fossil fuels, hydraulic fracturing and gases emitted by vehicles.
Desertification	This is defined as a process of land degradation in arid, semi-arid, and sub-humid areas due to various factors including climatic variations and human activities
Hydraulic Fracking	It is the process of pumping millions of gallons of water, sand, and chemicals underground to create enough pressure to crack or break apart the rock and release the gas.
Climate Change	It is rapidly occurring due to the ill effects of human actions responsible for disturbing and harmful out comings such as global warming, greenhouse effect , urban heat and coal industry.
Global Warming	It is another environmental issue which is an increase in the earth's temperature due to the effect of greenhouse gases called carbon dioxide, methane, water vapor, and other gases.
Oil spill	It involves the spilling of liquid petroleum in the ocean due to human activity that affects especially the marine ecosystem.
Deforestation	This means, clearing of forests or green cover for means of agriculture, industrial or urban use. It involves the permanent end of forest cover to make that land available for residential, commercial or industrial purposes.
Urban sprawl	Today almost all countries are using the land irresponsibly to meet the ever-growing demand of the greedy human wishes.
Overpopulation	Water pollution, resources crisis, gender imbalance, pollution, land pollution, urban sprawling, deforestation, over production are some common examples of dangerous effects cause of this.
Acid rain	It simply means rain that is acidic in nature due to the presence of certain pollutants in the atmosphere.



CHECK YOUR UNDERSTANDING

Direction: Read each scenario below. Draw a happy face if it shows a care and proper management in environmental health issues, and a sad face if it shows no care and improper management in taking environmental health issues. Draw your answer inside the box before each number

1. Kathryn and Daniel planned an annual activity about tree planting with the help of ABS-CBN Foundation.
2. Liza loves eating chocolates while going to school. After eating, she throws the chocolate wrappers on the road.
3. A group of men is planning to harvest woods that are in violation of national regulations.
4. A factory releases toxic substances directly in the river near the area.
5. James joined a "Clean and Green campaign" in their community sponsored by the local government.
6. Nadine practices proper waste segregation. She separates the biodegradable, non-biodegradable and plastic when arranging their garbage.
7. Dingdong practices improper maintenance on his car. As a result, the smoke coming from the vehicle becomes dark and dirty.
8. A group of students learn about the world's largest landfill and make a connection to their own lives and calculate how much trash they generate in a week, a year or ten years.
9. People all over the world are living under the night time glow of artificial light, and it is causing big problems for human, wildlife and environment.
10. Students explore a map showing cropland density around the world. They discover how soil is formed and explore how plants get nutrients from topsoil.