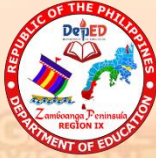


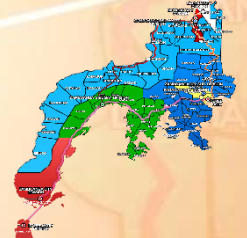


Republic of the Philippines
Department of Education
 Regional Office IX, Zamboanga Peninsula



- JANUARY**
Matuguhon
- FEBRUARY**
Mahiguimaon
- MARCH**
Matinabungan
- APRIL**
Matinahuron
- MAY**
Mahapsay og Malimpyo
- JUNE**
*Maabik og Masunod sa
Dusaklong Oras*
- JULY**
Maantigo og Maabilidad
- AUGUST**
*Maginhuhunoon
para sa Uban*
- SEPTEMBER**
Madaginaton
- OCTOBER**
Matinud-anon
- NOVEMBER**
Masaligan
- DECEMBER**
Maalampon

5



Zest for Progress
 Zeal of Partnership

SCIENCE

Quarter 4 - Module 3: Effects of Soil Erosion on Living Things and the Community



Name of Learner: _____

Grade & Section: _____

Name of School: _____



What I Need to Know

The Earth's surface continually changes of the processes that take place on and around it. Our country is a well known tourist spot because of its beautiful and historical places. In this module, you will learn more about the changes on Earth's surface brought about by soil erosion. You will study and infer that the surface of the Earth changes over time.

In this module, you are expected to:

Investigate the extent of soil erosion in the community and it's effect on living things and the environment **(S5FE-IVb-2)**.



What's In

Score:

5

Hey kid! Are you excited to learn new lesson? Come on, answer this activity”



ACTIVITY 1: "MODIFY ME"

Directions: Write T if the statement is true. If false, change the underlined word to make the statement correct.

- ___ 1. The movement of rocks from one place to another is called weathering.
- ___ 2. Sediments are materials transported due to erosion.
- ___ 3. Erosion is faster and greater on land surfaces with gradual slope.
- ___ 4. When a burrowing animal dig the ground, some rocks and soil particles stick to their bodies.
- ___ 5. Landslides can be caused by water, wind, animals and humans.



What's New

Hey kid! Welcome to your next activity.

Score:

2

ACTIVITY 2: "Survey Time"

Direction: Make sure to follow COVID-19 Health Protocol Measures when you go outside your community. Wear face masks, face shield and observe social distancing.

Science Skills: Observing, Communicating, Inferring

You Will Need: Paper, Pen,

What to Do:

1. Observe the landforms or rock formations in your community. Take note of possible signs of erosion. If there are no landforms or rock formation in your community, you may use other books or references to observe some landforms or rock formation in other places.
2. Ask old people in your household or neighborhood about some landforms or rock formations that may be the result of erosion. Let them describe how those looked like before. Based on their descriptions, compare with how they look like now.

Questions:

3. What are the signs of erosion that you have observed around your community? In other places?

4. Based on the accounts of the old people that you have talked to, do the landforms or rock formations that you see in your community today look the same as they were many years ago? Why? Why not?

ACTIVITY 3: Match Me With

Score:

5

Study the following situations. Match the cause of Soil Erosion in Column A with its corresponding effect in Column B. Write the letter of the correct answer on the blank before the number.

Column A

Column B

___ 1. Mining

a. clogging of irrigation canal

___ 2. Sediments carried by
water during flood.

b. Polluted water

___ 3. Conversion of farm land
healthy to commercial area.

c. Plants will not grow

___ 4. Topsoil is carried away
by water.

d. Less food supply

___ 5. Deforestation

e. Formation of sand dunes

f. Flood



What Is It

In addition to your learning, here is the brief explanation about the effects of soil erosion in the community and living things. Read and understand it.



Every natural process here on Earth, like soil erosion, affects both living and nonliving things. Soil erosion does not only shape Earth's landforms, it also affects the ecosystem especially if it happens abruptly. Human activities such as deforestation, illegal logging, overgrazing and quarrying also aggravate the effects of soil erosion in the environment.

Effects of Soil Erosion on Landforms

- Appearance and structure of a landform take hundreds of years to change.
- Formation of sand dunes
- Destroy large masses of land.
- Can add up to the beauty and wonder of nature.

Effects of Soil Erosion on Living Things

Effects on Plants

- Topsoil is easily carried away so plants will not grow well due to lack of nutrients.
- Sediments can clog the irrigation system (no enough water supply to plants)
- Soil loses the ability to hold and absorb water, soil will be dry and not suitable for vegetation.

Effects on Animals and Humans

- Unhealthy plants mean less food source
- Less food supply affects the ecosystem
- Farmers will have difficulty sustaining their lives
- Mine tailings left mineral waste after mining pollutes the seas and rivers.
- Polluted water affects aquatic animals.
- Polluted water may result in supply problem of potable water.
- Drinking polluted water will result sickness to humans and animals.

Ways to Prevent Soil Erosion

- Contour Plowing – planting across the slope to form ridges.
- Strip Cropping – alternately planting different crops in strips.
- Terracing - involves planting on terraces built on slopes of mountainsides.
- Crop Rotation – planting crops on a different spot each year.
- Riprapping – chunks of stones or rocks are arranged on the edge of the slope.
- Natural Vegetation – allowing plants to grow naturally without human interference.



What's More

You have come a long way in your module! Now answer the following activities. Good luck!

Score:

5

ACTIVITY 3: "Kinds of Effect"

Directions: Write \surd if the situation shows a good effect of soil erosion and \times if not on the blank provided before the number.

- ___ 1. Removal of topsoil
- ___ 2. Formation of soil
- ___ 3. Decrease in food production
- ___ 4. Shaping of landforms
- ___ 5. Inability of soil to hold water



What I Have Learned

Score:

8

ACTIVITY 4: "COMPLETE ME"

Directions: Classify the effects of Soil Erosion using the table below as guide.

Damages the slopes and mountain.
Causes the formation of landscapes such as sand dunes.
Receives very little nourishment from the soil.
Lives are put at risk of dangerous incidents such as landslides.
Difficulty in sustaining their lives due to lack of food supply.
Add up to beauty and wonder of nature.
Plants cannot anchor themselves on loose soil.
Polluted water makes them prone to sickness.

Effects of Soil Erosion

Landforms	Plants	Humans & Animals



What I Can Do

You've reached in this page. It means you really understand your lesson. Keep it up! Here is your another activity to answer. Good luck!

Directions: Choose one way of controlling soil erosion in the environment.

Draw it neatly inside the box.

- | | |
|--------------------|-------------------|
| 1. Contour Plowing | 4. Strip cropping |
| 2. Terracing | 5. Crop Rotation |
| 3. Riprapping. | |

	5	4	3	2
Content	Draw the statements completely	Draw only four statements	Draw only three statements	Draw only one to two statements

Originality/Creativity	Draw with his/her own.	Draw with pattern in the book.	Draw but it's not correct.	Let others draw to you.
Neatness	The illustration is exceptionally neat.	The illustration is neat.	The illustration is neat but some parts are not.	The illustration is messy.
Accomplishment	Pupil has exceeded the expectation of his/her ability.	Pupil has met all the expectation of his/her ability.	Pupil has met some expectation of his/her ability.	Pupil has not met few some of his/her ability.



Assessment

Hey kid! You are about to end this fun module. But take this assessment to evaluate if you understand your lesson. Good luck!

A. Direction: Encircle the letter of the best answer.

1. What effect of soil erosion contributes in the decrease of food production?
 - A. formation of landforms
 - B. animals lose their habitats shallow
 - C. plants grow unhealthy
 - D. water forms become shallow
2. Which of the following is a good effect of soil erosion?
 - A. decrease of food production
 - B. unfertile soil
 - C. shaping of landforms
 - D. deposition of mine tailings
3. How do the roots of the trees may help in controlling soil erosion?
 - A. They keep the soil more intact.
 - B. They go deep down the ground.
 - C. They absorb nutrients from the soil.
 - D. All of the above.
4. What part of the soil layer is carried away during erosion?
 - A. Subsoil
 - B. Parent rock
 - C. Bedrock
 - D. Topsoil
5. Which of the following human activities can lead to the destruction of the environment?
 - A. Deforestation
 - B. Mountain-blasting
 - C. Quarrying
 - D. All of these

B. Direction: Draw 😊 if the situation shows good effect of soil erosion and 😞 if not.

- _____ 1. Shaping of landforms
- _____ 2. Removal of topsoil
- _____ 3. Clogging of irrigation
- _____ 4. Decrease in food production
- _____ 5. Large masses becoming wonders of nature

REFERENCES:

Sarte, E. T., Garcia, E. R., Lopez, E. A., dela Cruz, M. G., & Arradaza H. A. (Copyright 2016). Science Beyond Borders-Grade 5 LM. Vibal Group, Inc. ISBN 978-971-07-3878-6

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Region IX Hymn OUR EDEN LAND

Here the trees and flowers bloom, Here
the breezes gently blow,
Here the birds sing merrily,
And liberty forever stays,

Here the Badjaos swam the seas,
Here the Samals live in peace,
Here the Tausugs thrive so free,
With the Yakans in unity.

Gallant men and Ladies fair,
Linger with love and care,

Golden beams of sunrise and sunset,
Are visions you'll never forget.
Oh! That's Region IX...

Hardworking people abound,
Every valley and dale
Zamboangenos, Tagalogs, Bicolanos,
Cebuanos, Ilocanos, Subanens,
Boholanos, Illongos,
All of them are proud and true
Region IX our Eden Land.

Region IX, our Eden Land.

ANSWER KEY

<p>1. What's In New</p> <p>Activity 1</p> <p>1. Soil Erosion</p> <p>2. T</p> <p>3. steeper</p> <p>4. T</p> <p>5. T</p>	<p>What's New</p> <p>Activity 2</p> <p>Pupils answers may vary</p> <p>1. b</p> <p>2. a</p> <p>3. d</p> <p>4. c</p> <p>5. F</p>	<p>What's</p> <p>Activity 3</p>
<p>Land</p> <ul style="list-style-type: none"> -Damages of the slopes and mountains. -Add up to the beauty & and wonder of nature. -Causes the formation of landscapes such as sand dunes. 	<p>Plants</p> <ul style="list-style-type: none"> -Receives very little nourishment. -Cannot anchor themselves on loose soil. 	<p>Humans and Animals</p> <ul style="list-style-type: none"> -Polluted water makes them prone to sickness. -Difficulty in sustaining their lives due to lack of food supply. -Lives are put at risk of dangerous incidents such as landslide.
<p>What I can Do</p> <p>Answers may vary.</p> <p>1. c</p> <p>2. c</p> <p>3. a</p> <p>4. d</p> <p>5. d</p>	<p>Assessment A</p> <p>1. ☹</p> <p>2. ☹</p> <p>3. ☹</p> <p>4. ☹</p> <p>5. ☹</p>	<p>Assessment B</p> <p>1. ☹</p> <p>2. ☹</p> <p>3. ☹</p> <p>4. ☹</p> <p>5. ☹</p>
<p>1. x</p> <p>2. √</p> <p>3. x</p> <p>4. √</p> <p>5. x</p>	<p>What's More</p>	