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Science

Quarter 1 - Module 2: Effects of Decaying Materials on One's Health and Safety





Department of Education • Republic of the Philippines

Science – Grade 4 Alternative Delivery Mode

Quarter 1 - Module 2: Effects of Decaying Materials on One's Health and Safety First Edition. 2020

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 $\label{eq:published} \mbox{ Published by the Department of Education} - \mbox{Division of Valencia City}$

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Science

Quarter 1 - Module 2: Effects of Decaying Materials on One's Health and Safety

This instructional material was collaboratively developed and reviewed by educators from public schools. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of education at region10@deped.gov.ph.

We value your feedback and recommendations.

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What This Module is About

Do you ask yourself questions about the world you live in? Do you even wonder what lies ahead the blue horizon or what rests beyond the seas? Your young mind may have many questions because you are so curious about how things happened.

This module will help you discover the answers to the questions you have about yourself, the environment, and everything beyond it. This will be your guide as you unlock new knowledge through various learning experiences through science process skills such as investigating/experimenting, observing, describing, tabulating/organizing data, analyzing, interpreting, explaining, generalizing, synthesizing, and communicating results.

Notes to the Teacher



Dear Teacher,

This is a self-paced module which has various activities to be done by the learners at home. Clear and careful instructions must be given to the learners to ensure safety and avoid misconceptions in performing the activities.



Garbage around us may have harmful effects to one's health and safety if they are not disposed properly. When not properly disposed, some decaying materials can lead to some diseases that prevent our body and mind from working normally.

In this module, you will learn about different sickness/ diseases caused by decaying materials and the effects of decaying materials to one's health and safety.

Learning Objectives:

- 1. Identify the diseases/sickness that may result from exposure to decaying materials.
- 2. Identify the effects of decaying materials on one's safety.

How to Learn from this Module

For you to achieve the objectives cited above, you are to do the following:

- Take your time reading the lessons carefully.
- Follow the directions and/or instructions in the activities and exercises diligently.
- Answer all the given tests and exercises.

Icons of this Module

	3 MOdule	
	What I Need to Know	This part contains learning objectives that are set for you to learn as you go along the module.
	What I Know	This is an assessment as to your level of knowledge to the subject matter at hand, meant specifically to gauge prior related knowledge.
W. A. S.	What's In	This part connects previous lessons with that of what you are going to learn.
	What's New	An introduction of the new lesson through various activities, before it will be presented to you.
	What is It	These are discussions of the activities as a way to deepen your discovery and understanding of the concept.
	What's More	These are follow-up activities that are intended for you to practice further in order to master the competencies.
	What I Have Learned	Activities designed to process what you have learned from the lesson
	What I Can Do	These are tasks designed to showcase your skills and knowledge gained, and applied into real-life concerns and situations.
	Post Assessment	This assessment evaluates your level of mastery in achieving the learning objectives.
00	More Activities	These are additional activities designed to increase the level of your skills and knowledge.



Test A

1.	water and unco	-borne disease th overed foods. B. scabies			Irinking polluted
	7. maiana	D. 00abi00	C. typno	ia D	. Tourtonna
2.	hospital. The	rom severe diarrh doctor said he sut ted immediately. \ B. dengue feve	fered fron What wou	n dehydrat Id be the p	ion and oossible illness?
3.	the river? A. The river mi B. She had eat C. She swam i	experience itching the dirty and content tension of the dirty and content tension of the river wearing the water of the wa	ontamina it caused g dirty clo	ted allergy. thes.	swimming in
4.	outside near pi spit blood and her possible illi	r the dumpsite. Siles of garbage. Complains of cheness? B. dengue fev	One early st and bad	morning, s ck pains. V	she happens to
5.	skin. What will	fever. Her mothe be the doctor's p er B. diarrhea	ossible di	agnosis?	

Test B Directions: Find and encircle at least five (5) diseases inside the box.

D	Υ	S	Е	N	Т	Е	R	Υ	0	W
С	Α	D	Е	Ν	G	U	Е	Т	D	G
В	Н	X	Μ	Ρ	D		R	Υ	Е	В
С	F	0	Α	J	0	М	S	Р	Ν	F
D	Е	G	L	L	W	Ν	W	Н	G	J
R	U	Ζ	Α	Ш	K	S	K	0	U	D
M	0	Т	R	G	R	F	М		Е	Α
N	Α	L	1	U	J	Α	Υ	D	Р	Α
Α	S	C	Α	В		Е	S	Т	Ĺ	Q

Te	st C	
Wr	ite the letter of the best answer in you	ır answer sheet.
11.	Rotten garbage are breeding place mosquitoes, cockroaches and rats situation for a long time, what kind get?	. If you are exposed to this of ailment would you probably
	A. high blood pressure	C. nosebleed
	B. heart failure	D. dysentery
12.	What diseases causes high fever a from the bite of a mosquito. A. leptospirosis B. Malaria	nd chills. This disease comes C. dengue fever D. dysentery
13.	How do we prevent being affected by decaying materials? A. Placing the left over foods in the result. B. Disposing the garbage properly. C. Segregating the decaying and no D. All of the above	refrigerator
14.	What people living in crowded areas exposed to diseases caused by pres A. Avoid throwing wastes anywhere	sence of decaying materials?

D. Both A and C

or breed.

B. mosquitoes D. all of the above

B. Eat left over foods only if stored in the refrigerator.

C. Maintain a proper disposal of waste materials.

15. Improper disposal of decaying wastes allow _____ to live

Lesson

What Diseases Will I Get From Decaying Materials?

Disease is an illness that affects a person, an animal, or a plant. It is a condition that prevents the body or mind from working normally.

This lesson will help you identify the diseases caused by exposure to decaying materials.



What's In

Name Game!



Figure 1.1. Garbage Area

Can you name the materials that undergo decay? Enumerate three materials from the drawing above that undergo decay.



Let's Do It!

Directions:

- A. Examine the drawings provided below.
- B. Identify the condition shown in each drawing.
- C. Write in your activity sheet the identified conditions shown.
- D. Organize your findings in the table provided below.
- E. Follow how it is done in the example given in the first line.

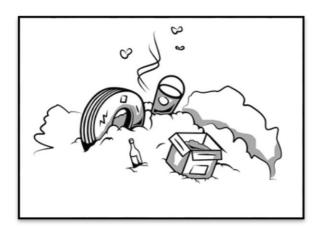


Figure 1. Drawing of a dumpsite



Figure 2. Drawing of a squatter's area

Activity Sheet

Place where the family lives	Waste materials seen in the surroundings	Pest breeding in the surroundings	Possible illness/diseases resulting from exposure to decaying materials
example: canals	empty cans, plastic bottles trashes rotten fruits and vegetables	mosquito flies	allergy dengue malaria typhoid waterborne disease
1.dumpsite			
2.squatters area			

Guide Questions:

- 1. What are the possible waste materials found in these areas? a. Dumpsite
 - b. Squatters' Area
- 2. What possible illness /sickness brought by these pests to the dwellers n this place? Why?
- 3. How could these sicknesses be prevented?



Learning Circuit!

- Diseases illnesses that affect a person, animal, or plant; it is a condition that prevents the body or mind from working normally.
- Decaying materials cause harm to one's health. Some diseases caused by decaying materials are: allergy, cholera, malaria, typhoid, dysentery and skin diseases.
 - Malaria and dengue fever are diseases spread by specific type of mosquitoes. These become epidemic in places where these type of mosquito breed.
 - **Typhoid** is a waterborne disease. People who drink polluted water can become infected with typhoid. The garbage in this area is a good breeding place for flies. The flies can carry the disease and infect more people
 - **Dysentery** is a disease that can cause severe diarrhea. If not treated properly someone can die from it.
 - A water borne disease that is transmitted to a person when they drink polluted water.
- Diseases can be prevented if there is proper disposal of wastes especially for those living in crowded areas and those who live near dumpsites, esteros, or canals.
- Good hygiene practices such as washing of hands, boiling of water, avoidance or exposure to air help being exposed to diseases.



Match Me!

Directions: Match the disease to its description. Write your answer in your science notebook.

Diseases	Description
1. Dysentery	A. waterborne disease
2. Ring worm	B. it causes severe diarrhea
3. Malaria	C. parasitic worm
4. Typhoid	D. transmitted by mosquitoes
5. Allergy	E. itchiness



What I Have Learned

Brain Twisting!

Directions: Write **true** if the statement is correct. If false, replace the underlined word with the correct word or phrase.

_1. Cholera is an infectious disease that causes severe watery
diarrhea, which can lead to dehydration and even death if
untreated.
_2. <u>Dysentery</u> is transmitted when a person drinks dirty water.
 _3. Scabies is a skin infestation caused by a mite
 4. Mosquitoes cause dengue and typhoid.
 _5. Washing hands before and after eating may help prevent
diseases



Guessing Time!

Directions: Manghuhula ka ba? Write what will happen to you if you are in this situation.

Situation	Hula Mo
If we are exposed to decaying materials, what will happen if we fail to wash our hands before eating?	



QUARTER 1- MODULE 2

Lesson 1

What Diseases Will I Get From Decaying Materials?

а	'ST
а	14.
а	.51
8	17.
а	'ττ
СНОГЕВА	.01
AIAAJAM	·6
DIOHAYT	.8
SCABIES	٦.
DENGUE	.9
A	.c
A	.4
A	3.
A	.2
Э	π.
Mou	WhatlK

5. true
4. malaria
3. true
2. true
1.true
Μγατ Ι Ηανε Γεαιπεά

3.2
A.A
a.£
2.C
1.8
What 's More

Possible illness/diseases resulting from exposure to decaying materials	Pest breeding in the surroundings	Waste materials on the second of the second	Place where the samily lives				
Allergy Dengue	Cockroach Mosquito	Rotten fruits and vegetables	ətisqmub				
əngnəd Malaria	Flies	Trashes					
biodqyT	Rats	Slamina baed					
Waterborne	worms	Empty bottles and					
disease		cans, etc.					
7,1020 V	40001/1000	plastics plastics	224401120				
Allergy	Cockroach	Rotten fruits and	gdnatters				
Dengue Malaria	Mosquito Flies	vegetables Trashes	າເອສ				
biodqyT	Rats	Dead animals					
Waterborne	worms	Empty bottles and					
disease		cans, etc.					
		plastics	- V				
 A. cellophanes, plastics, rotten vegetables and fruits, cans, etc. B. cellophanes, plastics, rotten vegetables and fruits, cans, etc. 							
2. allergies, malaria, dengue, typhoid, diarrhea							
3. clean the area, dispose waste properly, practice proper hygiene.							

l may get sick	If we are exposed to decaying materials, what will happen if we fail to wash our hands before eating?
OM sluH	Situation
	What I can Do

səldatəgəv	3.					
fruits	.2					
səxoq	٦.					
χυας, ε μυ (αυε <i>κ</i> ως ε ωαλ χαιλ)						

Lesson

2

Effects of Decaying Materials on One's Safety

Waste materials when not disposed properly will have a harmful effects to our health and safety. People living near garbage areas, dumpsites and in squatter areas are most exposed to sickness and diseases.

This module will help you identify the effects of decaying materials on one's safety.



What's In

Find Me!

Directions: Find and encircle the different waste materials found in a community.

Clue: There are 10 words all in their plural form. Refer to the words given below.

Р	Α	Z	S	Т	Υ	R	0	F	0	Α	М	C	S
Е	Α	R	0	Α	W	Н	S	Т	F	Α	G	Α	Е
Е	R	Р	R	Н	0	1	R	U	N	S	Н	N	Е
L	Υ	R	Е	F	0	J	Q	U	Е		J	S	D
ı	N	D		R	D	K	R	S	Е	K	L	Т	S
N	0	R	М	Α	S	L	S	V	D	М	N	0	В
G		N	G	Н	G	Α	Р	W	С	0	Р	В	Α
S	Е	Α	Т	G	L	М	S	Χ	В	Q	0	U	Ζ
R	S	0	W	G	Е	N	N	Υ	Α	Χ	Т	V	Υ
K	L	Α	В	С	D	0	Α	М	Е	Т	Α	L	S
С	Р	L	Α	S	Т		С	S	Z	R	S	W	Χ

STYRO FOAMS	PANS
METALS	PAPERS
PEELINGS	GLASSES
WOODS	CANS
PLASTICS	SEEDS



Fill Me Up!

Directions: Fill out the table. Write answers in your Answer Sheet.

Decaying Materials	Ways of Disposing Decaying Materials	Possible effects on the health of the family members
Food left overs		
Dead fishes		
Dumpsite		



What is It

Read and Learn More

- **Pollution** an action or process of making land, water, air dirty and not safe to use.
- Compost waste materials that are recycled as fertilizer
- Exposure to decaying materials will make people sick.

- Waste materials that are made into compost are not harmful to one's health and safety.
- Making a compost is one way of disposing garbage properly.
 Waste materials that are made into compost are not harmful to one's health and safety.
- People who live on the riverside often throw their garbage into the river.
- Chemical waste from the factories pollute the rivers.
- Polluted water contains harmful bacteria and chemical wastes that can make people sick.

Study the drawings below. Write your answers to the guide questions in your Answer Sheet.





Figure 3. Drawings of a dumpsite and a squatter's area

Guide Questions:

- 1. Describe what do you think might happen to the people living near the dumpsite/ garbage area?
- 2. What is the effect of this in one's health and safety?



Brain Twisting!

Directions: Inside the box below are some common household materials. What kind of pollution will they cause when not disposed properly? Write them under the correct column.

Note: Answers can be repeated.

detergent	insecticides	oil
peelings of fruits	rugs	styrofoam
diapers	plastics	animal manure
dead animals	leftover foods	

Air Pollution	Water Pollution	Land Pollution



What I Have Learned

Brain Buster!

Directions: Write a reflection on the effects brought about by the exposure to decaying materials in your environment to one's safety.



What I Can Do

lt!

Answer briefly:

- 1. Name five (5) waste materials commonly found at home.
- 2. What do you think will happen to us if we are exposed to these kind of materials?
- 3. What you going to do with the decaying materials?



Lesson 2

Effects of Decaying Materials on One's Safety

K	٦	A	В	0	D	0	A	M	3	T	A	٦	S
Я	S	0_	M	ອ		N	N	Х	A	X	<u> </u>	Λ	Х
S		Α	1	9	٦_	M	S	X	В	ď	0	<u> </u>	Z
ອ	ı	N	9	Н	9	A	В	M	<u> </u>	0	В	В	A
N	0	Я	M	A	S	٦	S	Λ	а	M	N	0	В
	N	D	ı	Я	a	K	Я	S	3	K	7	1	S
٦	Т	Я	3	4	0	ſ	Ø	n	3	1	r	S	a
3	В	Ь	Я	Н	0	l	Я	n	N	S	Н	N	3
3	A	Я	0	Α	M	Н	S		Н	A	ี	A	3
d	A	N	S	T	Y	Я	0	4	0	∀	M	ာ	S

- 3. clean the area, dispose waste properly, practice proper hygiene.
 - 2. allergies, typhoid, diarrhea, malaria, dengue,
- b. cellophanes, plastics, rotten fruits and vegetables, cans, etc.

səssəsib
Z. Sickness/
1. Get sick
tl si tadW

Land Pollution	Water	Air Pollution
	Pollution	
I!O	Defergent	insecticides
Bng	I!O	air pollution
Diapers	Diapers	peelings of fruit
Styrofoam	plastic	animal pollution
plastic		left overs

What's More

What I can Do

1. (answers may vary)

2. Make a compost to have organic fertilizer to be used in you plants.

What I Have Learned
Exposure to decaying materials can
lead to possible illnesses/ sickness. It
can be harmful to one's health and
safety.



Test A

Directions: Write the correct answ	wer on the blank.
mosquitoes, cockroaches and	places of harmful insects like flies, d rats. If you are exposed to this t kind of ailment would you probably C. nosebleed
B. heart failure	D. dysentery
2. What diseases causes high f from the bite of a mosquito. A. leptospirosis B. malaria	ever and chills. This disease comes C. dengue fever D. dysentery
 3. How do we prevent being afforded decaying materials? A. Placing the left over foods B. Disposing the garbage process. C. Segregating the decaying D. All of the above 	in the refrigerator.
 4. What people living in crowde exposed to diseases caused A. Avoid throwing wastes and B. Eat left over foods only if S. C. Maintain a proper disposa D. Both A and C 	by presence of decaying materials? ywhere. stored in the refrigerator.
5. Improper disposal of decayin or breed.	g wastes allow to live
A. cockroaches	C. flies
B. mosquitoes	D. all of the above

Test BFor numbers 6-10

Directions: Find and encircle at least five diseases inside the box.

D	Υ	S	Е	N	Т	Е	R	Υ	W
С	Α	D	Е	Ν	G	U	Е	Т	D
В	Н	Χ	М	Р	D	L	R	Υ	Е
С	F	0	Α	J	0	М	S	Р	Ν
D	Е	G	L	L	W	Ν	W	Н	G
R	U	Ν	Α	Е	K	S	K	0	U
М	0	T	R	G	R	F	М		Е
N	Α	Ĺ	I	U	J	Α	Υ	D	Р

		N	Α	L	ı	U	J	Α	Υ	D	Р]
Te	st C											
11.	This is	ed wa		nd ur	cove	red fo	ods.			-		
	A. ma	laria		В	. scat	oies		C. ty	phoid		D. I	leukemia
12.	Lino is hospit be tre A. dys	tal. T ated i	he do	octor : ediate	said ł ly. W	ne su	ffered ould	I from	dehy	/drati sible	on an illnes	nd should
13.	Why of the riv	did Ma /er?	aria e	experi	ence	itchir	ness i	n her	skin a		swim	ming in
14.		e had e swa aria is lives le nea lood a	l eate am I t aller near ar pile and c	en sor he riv gic to the desof (ompla	nething rer we the volumes the	ng tha earing vater ite. S ige. (at cau dirty of the he ar One e	sed a cloth river ind here arly r	allergy les r frien morni	ids al ng, sl	ne ĥa	play ppens to ht be her
	A. tub				. den	gue fe	ever	C. ma	alaria		D. (covid 19
15.	Leo h		_								uises	in his
	A. dei					•			enter		D. (covid 19



Additional Activities

Exercise 1

Directions: The scrambled words below are diseases one can get When exposed to decaying materials. Rearrange the following words and find out what they are.

I. IIVILAANA	
2. NGIR ORV	VM
3. YGLLERA	<u>-</u>
4. ODIHTYP	<u>-</u>
5. HRREAIDA	-
Exercise 2	
Directions: Identify	the following whether they are decaying or non-
decaying m	naterials?
 leftover food 	
2. banana peeling	gs
3. kangkong leav	
4. camote leaves	
5. twigs	-
6. Weeds	-
7. tetrapack juice	s -
8. glass bottles	
9. carton	
10.pieces of cloth	<u>-</u>

Congratulations for working diligently with this module. Try to share your experience with your teacher or elder brother or sister at home.



Answer Key

A.21
Y.41
A.££
A.SI
A.II
10. C
AIAALAN . 6
GIOH9YT.8
7.SCABIES
6.DENGUE
g.2
d.£
Q.£
2.8
1.D
Fost Assement

10. decaying
gniyasəb .e
8. non-decaying
gniγsɔ9b-non.√
gniyeɔəb .ð
S. decaγing
4. decaying
3. decaying
2. decaying
gniγεɔəb.⊥
Exercise 2

diarrhea	.S
biodqγT	·ħ
γgıalle	.£
Ring Worm	۲.
Malaria	٦.
	Exercise 1
IAL ACTIVITIES	10ITIQQA

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1 1011101	<u> </u>	000.0.

QUARTER 1- MODULE 2

Lesson

What Diseases Will I Get From Decaying Materials?

Answer Sheet

What I Know	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

What 's	s In (answers may Vary)
1.	
2.	
3.	

What's New			
Place where the family lives	Waste materials seen in the surroundings	Pest breeding in the surroundings	Possible illness/diseases resulting from exposure to decaying materials
dumpsite			
Squatters area			

1.	A.				
	R				

- 2. _____
- 3.

What 's More	
1.	
2.	
3.	
4.	
5.	

What I Have Learned
1.
2.
3.
4.
5.

What I can Do	
Situation	Hula Mo
If we are exposed to decaying materials, what will happen if we fail to wash our hands before eating?	

Name:	Grade&Section:	Score:

Lesson 2

Effects of Decaying Materials on One's Safety

Answer Sheet

Wha	at's In												
Р	Α	N	S	Т	Y	R	0	F	0	Α	M	С	S
E	Α	R	0	Α	W	Н	S	Т	F	Α	G	Α	E
E	R	Р	R	Н	0	1	R	U	N	S	Н	N	E
L	Y	R	E	F	0	J	Q	U	E		J	S	D
1	N	D	ı	R	D	K	R	S	E	K	L	T	S
N	0	R	М	Α	S	L	S	V	D	M	N	0	В
G	ı	N	G	Н	G	Α	Р	W	С	0	Р	В	Α
S	E	Α	Т	G	L	M	S	X	В	Q	0	U	Z
R	S	0	W	G	E	N	N	Y	Α	X	T	V	Y
K	L	Α	В	С	D	0	Α	М	E	T	Α	L	S
С	Р	L	Α	S	T		С	S	Z	R	S	W	X

What's New				
Decaying Materials	Ways of Disposing Decaying Materials	Possible effects on the health of the family members		
Decayed fruits and vegetable				
Dead fishes				
Dump site				
1.a	<u> </u>			
b				
2				
3				

What	is It
1.	Get sick
2.	Sickness/ diseases

What's More		
Air Pollution	Water Pollution	Land Pollution

What I can Do	
1.	
2.	

Name:	Grade&Section:	Score:
-------	----------------	--------

Answer Sheet

Post Assessment
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.

ADDITIONAL ACTIVITIES
Exercise 1
1.
2.
3.
4.
5.

Exercise 2
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.