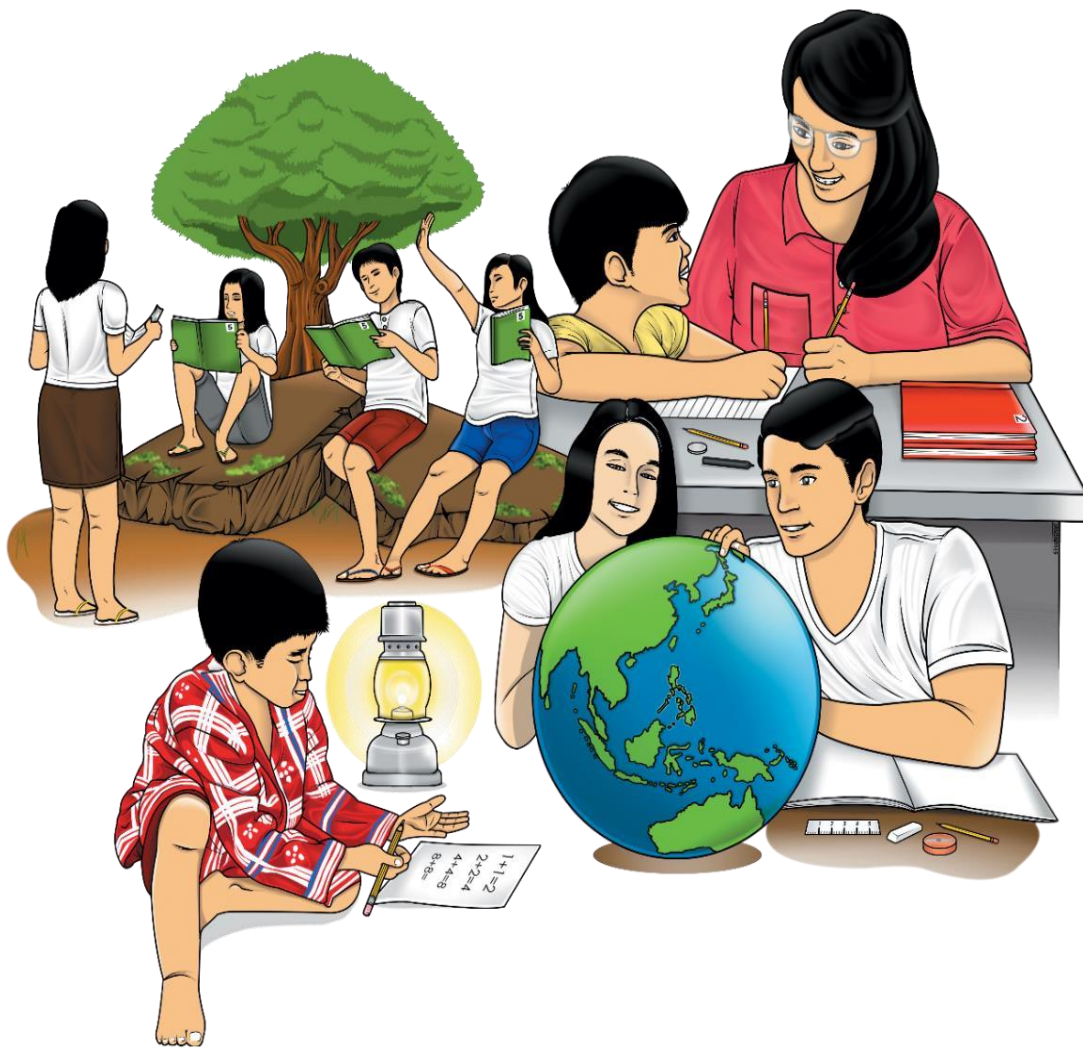


Health

Quarter 3 – Module 3: Effects of Noise Pollution



Health – Grade 6
Alternative Delivery Mode
Quarter 3 – Module 3: Effects of Noise Pollution
First Edition, 2020

Republic Act 8293, section 176 states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this module are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

Published by the Department of Education
Secretary: Leonor Magtolis Briones
Undersecretary: Diosdado M. San Antonio

Development Team of the Module

Author:	Mary Lutz P. Panizales
Editor:	Elsie P. Serafico,
Reviewer:	Ma. Lennie F. Pamposa, Elsie P. Serafico, PhD John Mark Q. Apellado
Illustrator:	Zoila Mae M. Panes, Riza E. Celebrado, Marvin P. Pagurayan
Layout Artist:	Catherine P. Padrones, Ria V. Omaña
Management Team:	Ma. Gemma M. Ledesma, Elena P. Gonzaga Donald T. Genine, Ma. Nilma E. Casamayor Dexter P. Diergos, Winifred S. Panes

Printed in the Philippines by _____

Department of Education – Region VI

Office Address: Duran Street, Iloilo City, 5000
Telephone Nos.: (033) 509-7653; (033) 336-2816
E-mail Address: region6@deped.gov.ph
Website: region6.deped.gov.ph

Health

Quarter 3 – Module 3: Effects of Noise Pollution

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



What I Need to Know

This module was designed and written with you in mind. It is here to explain the effect of a noisy environment.

The module consists of one lesson only.

- Lesson 1 – Effects of Noise Pollution

After going through this module, you are expected to explain the effect of a noisy environment. **(MELC H6EH-III d-4)**



What I Know

Direction: Complete the sentence with the correct word or words from the box below. Write the answer in a sheet of paper.

damage	headache
loud	unpleasant
sound	decreased
heart disease	brain
sleepiness	deafness

1. Noise pollution is generally defined as _____ and _____ noise that is harmful to human who can hear it.
2. Noisy environment can _____ our hearing by causing tinnitus or _____.
3. Physical effect of too loud noise includes high blood pressure, _____ and _____.
4. Listening to a loud sound can damage the hair cells in our ears that are responsible for transmitting _____ to the _____.
5. People who are affected by sleep disturbances tend to suffer the next day from daytime _____ and _____ cognitive performance.

Lesson

1

Effects of Noise Pollution

Noise pollution is defined as prolonged exposure to loud sound levels that may lead to adverse effects in human or other living organisms. Exposure to constant excessive noise has been shown to cause a range of health problems such as headache, hypertension, poor concentration, depression, stress and fatigue from lack of sleep to more serious issues such as cognitive impairment, cardiovascular disease, tinnitus and hearing loss.



What's In

Below are some examples of noises. What do you think is the effect if you live in a noisy environment? You will know the answer for this question after studying this module.



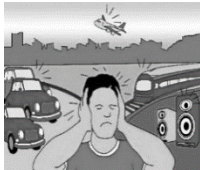


What's New

A. Direction: Read this poem about noise pollution.

Silence Please!

Written by: Mary Lutz P. Panizales



Different noise everywhere
Everyday that's all I ever hear
Breaking the sound of silence
That is getting louder and louder.



Noisy environment can damage our hearing
It can even ruin our daily living
We can't focus, we can't sleep
Making us stressed and depressed.



Living in a noisy environment is harmful
That can lead to different health conditions
Like deafness, anxiety and poor concentration
Even heart disease, tiredness and hypertension.



I'm afraid with all these noise that surround us
I'm not sure of the sound level my ears can endure
I have only one request before it's too late
Silence please, silence please!

B. Direction: Look at the pictures below. The following are some examples of the effects of a noisy environment, after reading/studying this Module identify which of these effects you experienced most of the time? Write your answer on a separate sheet.



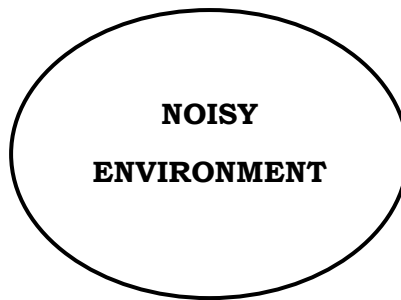
Headache



Depression



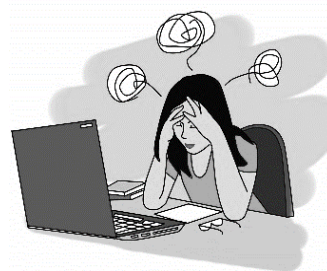
Sleep disturbances or insomnia



Inability to focus and concentrate



Deafness or hearing loss



Stress



What is It

The two friends are reviewing their lesson about the noise pollution and its effect... Let's learn from them too.

What is a noise pollution?

Noise pollution is generally defined as loud and unpleasant noise that is harmful or annoying and may lead to adverse effects to people and other living organisms.

According to the World Health Organization, sound less than 70 decibels (dB) is not damaging to living organisms, regardless of how long or consistent the exposure is. Exposure for more than 8 hours to constant noise beyond 85 dB may be dangerous. Therefore, those, traffic enforcer/traffic aid who heard a car horn which produces 90 dB and a bus that produces 100 dB possible experience noise pollution.

What are the effects of a noisy environment?

Noisy environment can damage our hearing by causing tinnitus or deafness. Constant loud noise is harmful to human health in many ways. Consistent barking of dogs from your neighbor, and traffic noise accounts for most polluting noise in cities are some example of noisy environment. Here are some of the effects of a noisy environment: physical, psychological, memory and concentration, as well as sleep and behavioral disorders.



Physical effect of loud sound includes high blood pressure or hypertension, heart disease and headache or migraine. Exposure to excessive sound for a long period of time can result to hypertension. People exposed to noise pollution are more likely to have heart problems compare to those unaffected by noise



Psychological effect includes stress, fatigue, anxiety, depression and noise irritation or emotional reaction that can have an immediate impact. People who are living in a noisy environment usually suffer from depression than those who live in a quieter environment.



Noise can **affect memory and concentration by losing** the ability to focus which can lead to low performance over time. Loud noise can have latent effects on our behavior, causing aggressive behavior and irritability.



Insomnia or sleep disturbances are usually caused by constant exposure to noise pollution. They are serious conditions that can lead to health deterioration. It can affect everyday performance and lead to serious diseases.



People who struggle from sleep disturbances tend to suffer the next day from daytime sleepiness, irritation, tiredness, mood swings and decreased cognitive performance.

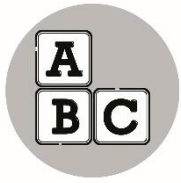


Children appear to be more sensitive to noise pollution. One of the noise-pollution related disease is hearing impairment. Permanent hearing loss or deafness can be caused by noisy environment. For example, listening to a loud music in your headphones are at risk of developing hearing dysfunction or being exposed to a sound that are too loud for a long time. It damages the hair cells in our ears that are responsible for transmitting sound to the brain. These hair cells are very sensitive, once damaged they cannot grow back.



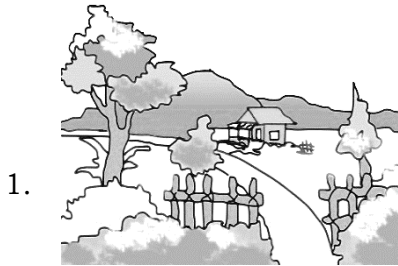
Among the five senses, perhaps our hearing is the most precious. Hearing empowers us and help us communicate with the people we love and the world around us . We must take good care of our





What's More

Direction: Write **Agree** if the picture shows about the effect of a noisy environment and **Disagree** if it does not. Write the answer in separate sheet of paper.



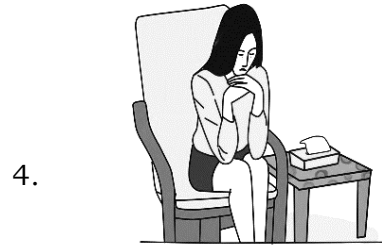
Peaceful place



Headache



Sound sleep



Depression



Poor concentration



What I Have Learned

Direction: Write **PE** if the example belongs to Physical Effect, **PsyE** if belongs to Psychological Effect and **MC** if it belongs to Memory and Concentration.
Write your answer in a separate sheet of paper.

- _____ 1. hypertension
- _____ 2. stress
- _____ 3. fatigue
- _____ 4. Heart disease
- _____ 5. poor concentration
- _____ 6. depression
- _____ 7. headache
- _____ 8. noise irritation
- _____ 9. migraine
- _____ 10. anxiety



What I Can Do

Direction: The following pictures explain the effects of a noisy environment. Complete each sentence below the picture by filling the correct word or words from the box. Write your answer in a separate sheet of paper.

sleep disturbances

heart disease

deafness

stress

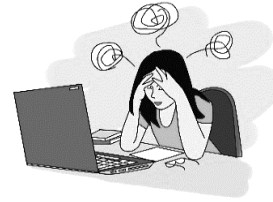
high blood pressure

1.



Riza is suffering from _____. She cannot hear her friend's call.

4.



May is having _____ while working due to a very loud sound from the neighbor.

2.



Mel is affected with frequent loud sounds from the loud speaker. She has _____ upon monitoring her blood pressure.

5.



Carlo lives in a noisy place. He is likely to develop a _____.

3.



Liz used to wake up at night every time she hears a strong sound of an ambulance. She experiences _____.



Assessment

Direction: Write **True** if the statement about the effect of a noisy environment is correct and **False** if it is not. Write your answer in a separate sheet of paper.

1. Noise affects one's ability to focus.
2. Loud sound can lead to headache or migraine.
3. People who have sleepless night due to irritating sound heard tend to suffer sleepiness and tiredness at day time.
4. Permanent hearing loss or deafness can be caused by noisy environment.
5. People who are living in a quieter environment usually suffer from insomnia.
6. Psychological effects of noise pollution include high blood pressure, heart disease and headache.
7. Listening to a loud music in headphones develops hearing impairment.
8. Adult appear to be more sensitive to noise pollution.
9. Exposure for more than 8 hours to constant noise beyond 85 decibels may be dangerous.
10. People exposed to noise pollution are more likely to have heart problems compare to those unaffected by noise.



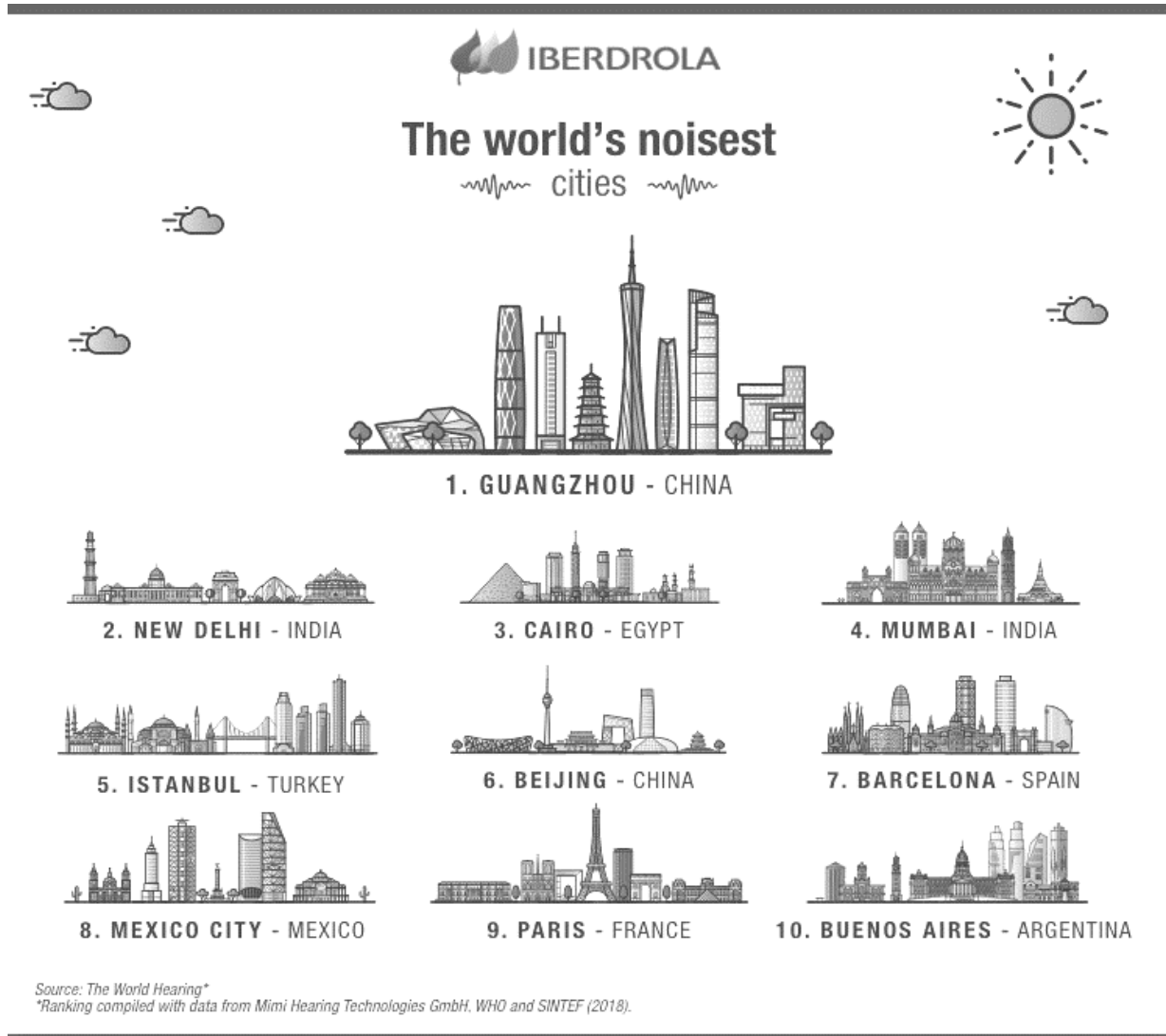
Additional Activity

Direction: Identify at least five (5) words relating to the effects of a noisy environment whether arranged vertically or horizontally. Write the answer in a separate sheet of paper.

S	T	R	E	S	S	E	C	O	W	O	H	I	F	D	E
G	E	R	O	C	L	E	A	N	G	I	E	H	W	E	E
S	F	H	H	J	K	L	Q	W	E	R	A	E	I	P	A
A	T	S	E	E	N	E	U	R	O	L	D	A	I	R	T
s	O	N	D	K	C	I	V	E	L	Y	A	L	S	E	F
A	X	S	H	A	L	V	O	A	O	G	C	T	Q	S	F
Z	O	T	R	E	W	W	B	G	H	J	H	H	N	S	G
F	I	N	S	O	M	N	I	A	C	V	E	Y	S	I	H
V	I	D	T	D	S	D	T	W	S	U	R	S	E	O	N
S	A	S	F	P	E	A	X	E	F	U	L	C	H	N	J
A	T	C	V	T	D	A	T	P	O	I	U	H	G	F	Y
F	R	C	B	N	E	P	R	R	O	L	O	O	I	S	T
E	I	E	V	E	F	G	I	J	F	Q	A	O	Z	C	N
I	S	S	C	F	G	E	C	R	T	B	L	L	T	Y	U
S	T	R	G	H	J	K	I	W	S	X	C	L	E	S	R
D	E	A	F	N	E	S	S	T	R	I	Z	T	E	R	S
H	A	R	M	L	E	S	S	S	D	F	F	G	R	E	E
F	T	Y	C	E	D	U	A	T	R	R	C	I	E	N	V

Additional Information:

Did you know that:





Answer Key

<p style="text-align: center;">Assessment</p> <p>1. True 2. True 3. True 4. True 5. False 6. False 7. True 8. False 9. True 10. True</p> <p style="text-align: center;">Additional Activities</p> <p>INSOMNIA STRESS DEAFNESS DEPRESSION HEADACHE</p>	<p style="text-align: center;">What I Have Learned</p> <p>1. PE 2. PSYE 3. PSYE 4. PE 5. MC 6. PSYE 7. PE 8. PSYE 9. PE 10. PSYE</p> <p style="text-align: center;">What Can I Do</p> <p>1. deafness 2. high blood pressure 3. sleep disturbances 4. stress 5. heart disease</p>	<p style="text-align: center;">What I Know</p> <p>1. loud 2. damage 3. heart disease 4. sound 5. sleepiness decreased</p> <p style="text-align: center;">What's More</p> <p>1. Disagree 2. Agree 3. Disagree 4. Agree 5. Agree</p>
---	--	--

References

Health effects of environmental noise pollution. Retrieved on July 6, 2020 at <https://www.science.org.au/curious/earth-environment/health-effects-environment-noise-pollution>

K to 12 Health Curriculum Guide August 2016 page 57

MELC –Health 6 page 353

Teacher’s Guide Health 6

Noise pollution: how to reduce the impact of an invisible treat. Retrieved on July 6, 2020 at <https://www.iberdola.com/environment/what-is-noise-pollution-causes-effects-solutions>

Noise pollution isn’t just annoying-it’s bad for your health. Retrieved on July 7, 2020 at <https://www.brainfacts.org/thinking-sensing-and-behaving/diet-and-lifestyle/2018/noise-pollution-isnt-just-annoying-its-bad-for-your-health-062718>

What is noise pollution. Retrieved on July 6, 2020 at <https://www.environmentalpollution.org/noise-pollution/>

Your hearing matters. Retrieved on July 9, 2020 at <https://bellman.com/en/your-hearing/facts-about-hearing/>

The World Noisiest Cities. Retrieved on February 16, 2021 at <https://www.iberdrola.com/environment/what-is-noise-pollution-causes-effects-solutions>

For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex
Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph